Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Anglesey Ecoparc Mon Limited

Mona Anaerobic Digestion Plant
Ecoparc Mon
Mona Industrial Estate
Gwalchmai
Isle of Anglesey
LL65 4RJ

Permit number

EPR/AP3033HY

Mon Anaerobic Digestion Plant
Permit Number EPR/AP3033HY

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Mona Industrial Park is situated within a rural area adjacent to the Mona Airfield, operated by the Ministry of Defence and was once part of the Airfield. There are several residential properties located close to the site. The village of Gwalchmai to the West, Bodffordd to the North and Rhostrehwfa to the East. Other major landmarks include the Cefni Reservoir to the North East.

Access to the industrial park is directly off the A5 which has been replaced as the main arterial route in Anglesey by the A55, which runs almost in parallel with the A5. The distance from Junction 6 of the A55 to the industrial park is approximately 2.5 miles.

The Industrial site has similar users i.e. a waste transfer station opposite, but most activity in the estate is situated around the entrance to the estate, with large areas of land not yet developed. The area is predominantly rural in its setting and supports numerous farms and associated businesses. Adjacent businesses include a poultry farm and highway depot.

Four Special Areas of Conservation were identified within 10km of the site and a Site of Special Scientific Interest within 2km of the site.

This permit is for the operation of an anaerobic digestion plant which utilises the breakdown of organic matter by naturally occurring bacteria in the absence of air resulting in the production of biogas and biofertiliser.

The feedstocks associated with this plant range from food processing to animal slurry with a total annual waste throughput of 25,000 tonnes per year.

This permit is required to authorise the treatment of Animal By-products Waste (animal carcasses or animal waste) in excess of ten tonnes per day, for disposal/recycling, which is an activity covered by the description in Section 6.8 Part A(1)(c) in Part 2 to Schedule 1 of the Environmental Permitting Regulations.

The process involves solid wastes being delivered into the building in vehicles which will discharge the waste into an unloading bay. Raw liquid waste materials will be discharged from tankers outside the building into a raw waste tank within the building which will feed the pasteurisation tank and then the hydrolysis tank. The hydrolysis tank then feeds the digester. This is a gas tight cylindrical system in which the anaerobic digestion takes place. Gas is produced from this process which will be used to fuel the gas engines. The gas engines will in turn produce electricity. The digestate produced by this process will be used as a fertiliser.

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

Status Log of the permit		
Detail	**Date**	**Comments**
Application EPR/AP3033HY/A001	Duly made 13/10/10	
Additional Information Requested	15/12/2010	
Additional Information Received	06/01/2011	
Additional Information Received	15/02/2011	
Additional Information Received	01/03/2011	
Permit determined	27/06/2011	

End of Introductory Note

Permit

Permit number
EPR/AP3033HY

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

Anglesey Ecoparc Mon Limited ("the operator"),

whose registered office is

Berwyn
Porthdafarch Road
Holyhead
Anglesey
LL65 2SA

company registration number 06414275

to operate an installation at

Mona Anaerobic Digestion Plant
Ecoparc Mon
Mona Industrial Estate
Gwalchmai
Isle of Anglesey
LL65 4RJ

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

Name	Date
Mark Jenkins	27th June 2011

Authorised on behalf of the Environment Agency

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:

(a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;

(b) review and record at least every four years whether changes to those measures should be made; and

(c) 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, 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 No raw materials or fuels listed in Schedule 2 Table S2.1 shall be used unless they comply with 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.

(c) It consists of biodegradable material that can be digested to produce, and optimise the production of biogas.

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.

2.5 Pre-operational conditions

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

2.6 Pests

2.6.1 The activities shall not give rise to pollution or hazards from pests. 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.

2.6.2 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;

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

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.

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

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;

(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 Monitoring

3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1 and S3.2;

(b) process monitoring specified in table S3.3; and

(c) bioaerosol monitoring specified in table S3.4.

3.3.2 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.

3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.3.4 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, unless otherwise agreed in writing by the Environment Agency.

3.4 Odour

3.4.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4.2 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;

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

3.5 Noise and vibration

3.5.1 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.

3.5.2 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;

(b) implement the approved noise and vibration 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 For the following activities referenced in schedule 1, table S1.1 (A1 to A7), 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 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.

4.3.2 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.

4.3.3 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.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

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**	**Limits of specified activity and waste types**
A1	S6.8 A1 (c) Disposing of or recycling animal carcasses or animal waste, other than by rendering or by incineration falling within section 5.1, at a plant with a treatment capacity exceeding ten tonnes per day of animal carcasses or animal waste or both in aggregate.	Receipt, storage and anaerobic digestion of animal tissue.	Anaerobic digestion of permitted waste including pasteurisation and chemical addition. Waste types as specified in Table S2.2
	Directly Associated Activity		
A2	Processing of organic material by anaerobic digestion.	Anaerobic digestion of organic material. Including storage of liquid and solid digestate.	From receipt of vegetable matter to storage of liquid and solid digestate and integrated storage and supply of biogas to Activity A3 below. Waste types as specified in Table S2.2
A3	Burning fuel manufactured from or including waste (other than a fuel mentioned in paragraph (b)) in an appliance with a net rated thermal input of 0.4 or more megawatts but a rated thermal input of less than 3 megawatts.	The combustion of gas for the purpose of generation of electricity and heat for use within the installation and export to the National grid.	From receipt of biogas in the installation through to the combustion process and subsequent delivery of electricity and the generation of heat for use by the anaerobic digestion process.
A4	Gas storage	Storage of biogas in dual purpose tanks.	From storage of biogas produced from anaerobic digestion to despatch for combustion via engine.
A5	Chemicals and raw material storage	Storage of chemicals and raw materials including sulphuric acid, coagulant, cleaning fluids, lubrication oil and diesel	From receipt of chemicals and raw materials to their use within the installation.

Table S1.1 Activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity and waste types**
A6	Digestate Storage	Storage of liquid digestate in bulk concentration tanks. Storage of solid digestate in external storage bay.	From storage of liquid digestate to despatch for use off-site.
A7	Surface Water Storage	Storage of uncontaminated surface water run off from external areas of the site including roof water.	From containment in surface water balancing facility until discharge through emission point S1.
	Description of activities for waste operations		**Limits of activities**
A8	Anaerobic Digestion of waste	R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes). 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) D9: Physico-chemical treatment not specified elsewhere in Annex IIA to the Waste Framework Directive which results in compounds or mixtures which are discarded by means of any operations numbered D1 to D12	Treatment of waste including shredding, sorting, screening, compaction, baling, mixing and maceration. Storage of waste from its receipt through to its digestion and recovery of by-products from the installation. The air extraction system that maintains negative pressure shall be fitted with a biofilter. Digestion of wastes including pasteurisation and chemical addition. Gas cleansing by biological or chemical scrubbing. Treatment of digestate including screening to remove plastic or other residues, centrifuge or pressing, addition of thickening agents (polymers) or drying. Composting and maturation of digestate. The use of combustible gases produced as a product of the anaerobic digestion process as fuel. Use of a back up boiler required only for periods or breakdown or maintenance. All waste solids, liquids and sludges shall be stored on an impermeable surface with a sealed drainage system. All storage and process tanks shall be fit for purpose and be constructed and maintained to a recognised standard with appropriate leak detection.

Table S1.1 Activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity and waste types**
			Liquid digestate should be stored within a covered tank and should be of a design and capacity fit for purpose. All biogas condensate shall be discharged into a sealed drainage system. Fugitive emissions of unburned biogas and the operation of the auxiliary back up boiler shall be minimised. Any significant fugitive emissions of unburned biogas (including operation of the pressure relief valves associated with biogas storage) and the operation of the back up boiler shall be recorded.
A9	Transfer and storage of recyclable materials	R3: Recycling/reclamation of organic substances which are not used as solvents R5: Recycling/reclamation of other inorganic compounds 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)	With the exception of discharge of liquid waste from tankers to the internal storage tanks and the storage of solid digestate, all bulking, storage, treatment and transfer of waste shall be carried out within a building that is kept under negative pressure and provided with an impermeable surface and sealed drainage system. Solid digestate shall be stored in an external, three sided covered bay on concrete hardstanding. Physical treatment consisting only of manual sorting, screening, crushing or compaction of non-hazardous waste into different compounds for recovery.

Table S1.2 Operating techniques		
Description	**Parts** Note 1	**Date Received**
Application	Section 3 subsection 3a, 3b, and 3d of the application document in response to section 3 – operating techniques, Part B3 of the application form.	13/10/10
Response to Schedule 5 Notice dated 15/12/10	The following documents provided in response to the Schedule 5 notice dated 15/12/2010:	06/01/2011
	Dispersion Modelling Assessment – Version 1 - 21/12/2010	15/02/2011
	Odour Management Plan – Version 2.1 – 05/012/2011	
	Fugitive Emissions Management Plan – 2033/819/FEMP/A – Version 1.3	
	Noise & Vibration Management Plan – 2033/819/B – Version 1.2	
	Environmental Risk Assessment – 2033/819/K – Version 1.2	
	Burdens - Odour Impact Assessment – BUEN10AFINAL	
Revised documents submitted 01/03/2011	Burdens –Technical Proposal for AD Plant – 01/03/2011	01/03/2011
	Caulmert Ltd – Anaerobic Digestion Plant – Drainage Design – Document reference 1006.11.AEML.JM.MPC.RevB(1)	01/03/2011
	Management System 2033/819/MS – 01/03/2011	

Note 1 - Operating techniques shall be in accordance with the documents referenced in this table unless they are subject to revision in accordance with the requirements of tables S1.3 and S1.4 of this permit and agreed in writing with the Environment Agency.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The operator shall monitor emissions from the gas engines for the determinands listed in table S3.1. The results of the emissions monitoring shall be used to assess the environmental impact of the emissions from the gas engines on air quality standards. The assessment shall be carried out using Agency guidance note H1 and shall include air dispersion modelling if required by H1 criteria. A copy of the impact assessment shall be submitted to the Environment Agency.	Within two months of completion of commissioning of the plant.
IC2	The operator shall undertake a noise assessment in accordance with procedures given in BS4142:1990 (description and measurement of environmental noise) or other methodology as agreed in writing with the Agency. Any noise sources(s) identified as exhibiting tonal contributions shall be quantified by means of frequency analysis. Noise measurement shall be undertaken by an experienced and suitably qualified person. On completion of the assessment a copy of the survey shall be submitted to the Environment Agency in the form of a report, with interpretation of the results and conclusions and recommendations drawn.	Within two months of completion of commissioning of the plant.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC3	The operator shall review the effectiveness of the Odour Management Plan in preventing and minimising odour emissions from all point and fugitive sources during the first two months of operation. This shall include a review of assumptions and conclusions drawn in the Odour Monitoring Report (document reference 2033/819/OMP/01- dated 05/01/2011) and the Dispersion Modelling Assessment (document reference 2033-819-S –dated 21/12/2010), by sampling and measuring odour emissions from all point and fugitive sources. This review shall be undertaken in accordance with Environment Agency Guidance notes H1 and H4. A copy of the review shall be submitted to the Environment Agency detailing improvements required (where applicable) to prevent and minimise odour emissions and ensure the installation does not cause an odour nuisance.	Within three months of completion of commissioning of the plant.
IC4	The operator shall submit a Bird Management Plan, which will ensure that all appropriate measures are taken to prevent the presence of gulls and corvids at the permitted Installation during daylight hours. The plan should include: • Coverage of the lagoon with a mesh that prevents access in and out of the lagoon by birds • specified bird control techniques • operating hours of techniques proposed • monitoring regime to measure the effectiveness of the techniques employed. The management plan shall be implemented from the date of approval by the Environment Agency.	Within one month of completion of commissioning of the plant.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO1	Prior to the commencement of commissioning, the operator shall send a summary of the site Environmental Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS. The EMS shall be developed in line with the requirements set out in Section 1 of How To Comply With Your Environmental Permit – Getting The Basics Right. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO2	Prior to the commencement of waste acceptance, the operator shall provide a written plan, including timescales for completion, for the commissioning of the Odour Control Unit (OCU) serving the waste reception building. The plan shall clearly set out how the odour destruction efficiency of the bio-bed will be established, monitored and maintained to prevent and minimise odour emissions during the commissioning period. The plan shall include details of the actions to be taken if odour emissions from the OCU cause, or have the potential to cause annoyance to local receptors during the commissioning period. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.
PO3	Prior to commencement of operations at the site, appropriate measures shall be taken to establish background concentrations of bioaerosols at agreed monitoring locations. This should be undertaken in accordance with the methods prescribed in 'A standardised protocol for the monitoring of bioaerosols at open composting facilities.' The results of the sampling shall be submitted to the Environment Agency. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.
PO4	Prior to commencement of operations at the site, the operator shall submit to the Environment Agency for approval, details of the noise control measures for the Gas Engine that will result in a noise level of less than 45 dBA as measured 10 metres from the Gas Engine. The measures shall be implemented from the date of approval by the Environment Agency. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.
PO5	Prior to commencement of operations at the site, the operator shall submit to the Environment Agency details of the 'as built' drainage system, tank/building bunding and lagoon and confirm such construction is in accordance with the details provided within the application documents. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.
PO6	Prior to the commencement of operations at the site, the operator shall provide written confirmation as to how a failure of the PVC bag within the digester and other relevant tanks will be detected to ensure primary and secondary containment is maintained at all times. No operations shall commence until compliance with this condition has been confirmed in writing by the Environment Agency.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
Non-waste biomass fuel	Supplementary feedstock material substantially free of non vegetable matter – maximum input restricted to 6,000 tonnes per annum. Note 1
Diesel	Sulphur content shall not exceed 0.1% by mass
Lubricating Oil	Operational requirement
Gear Oil	Operational requirement
Heating Oil	Operational requirement
Chemical s - Deutoclear	To remove H_2S and NH_3 in the digestate
Antifreeze (Ethylene glycol)	Antifreeze for engine cooling systems

Note 1. Maximum quantities permitted shall be as as specified in section 3.2 of document reference 2033/819/MS – Management system (dated 01/03/2011 – version .14), subject to available storage capacity as specified in section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).

Table S2.2 Permitted waste types and quantities

Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPERATION AND PROCESSING**
02 01	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 01	Sludge's from washing and cleansing – food processing waste, food washing waste
02 01 02	Animal tissue waste-category 3 animal by-products (ABP) including blood, animal flesh, fish processing waste, fish carcasses, poultry waste-category 2 ABP-paunch contents
02 01 03	Plant tissue waste – husks, cereal dust, waste animal feeds
02 01 06	Animal faeces, urine, manure including spoiled straw
02 01 07	Wastes from forestry
02 01 99	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 – category 3 ABP including blood, animal flesh, fish processing waste, fish carcasses, poultry waste

Table S2.2 Permitted waste types and quantities	
Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
02 02 04	Materials unsuitable for consumption or processing – coffee, food processing waste, jam, kitchen waste, fruit, vegetable oil, tobacco, tea, vegetable waste – waste from fat processing of meat or fish
02 02 05	Sludges from on-site effluent treatment
02 02 99	Non 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 02	wastes from preserving agents
02 03 04	Biodegradable materials unsuitable for processing or consumption (other than those containing dangerous substances)
02 03 05	Sludges from on-site effluent treatment
02 03 99	Non specified* - sludges from the processes of edible fats and oils – seasoning residues, molasses residues, - residues from production of potato, corn or rice starch
02 04	**Wastes from sugar processing**
02 04 03	Sludges from on site effluent treatment – biological sludge
02 04 99	Other biodegradable wastes
02 05	**Waste from the dairy produces industry**
02 05 01	Biodegradable materials unsuitable for consumption or processing (other than those containing dangerous substances) – 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 confectionary industry**
02 06 01	Biodegradable materials unsuitable for consumption or processing (other than those containing dangerous substances) – food condemned, food processing wastes, biscuits, chocolate, yeast, bread, bakery waste
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 – brewing waste, food processing waste, fermentation waste
02 07 02	Wastes from spirits distillation – spent grain, fruit and potato pulp – sludges from distilleries
02 07 03	wastes from chemical treatment

Table S2.2 Permitted waste types and quantities	
Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
02 07 04	Biodegradable materials unsuitable for consumption or processing (other than those containing dangerous substances) – brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks, fruit juice
02 07 05	sludges from on-site effluent treatment
02 07 99	Spent grain, hops and whisky filter sheets/cloths
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 – paper sludge- green liquor
03 03 05	de-inking sludges from paper recycling
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Waste from sorting of paper and cardboard destined for recycling – cardboard, newspaper, tissues, paper
03 03 10	Fibre rejects and sludges – paper pulp (de-inked only), paper fibre
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	**Wastes from the leather, fur and textile industries**
04 01	**Wastes from the leather and fur industries**
04 01 01	Fleshing and lime split wastes
04 01 05	Tanning liquor free of chromium
04 01 07	Sludges not containing chromium
04 01 09	wastes from dressing and finishing
04 02	**Waste from the textile industry**
04 02 10	Organic matter from natural products e.g. grease, wax

Table S2.2 Permitted waste types and quantities	
Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
07	**Waste from organic chemical processes**
07 01	**wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals**
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11 (see note 1)
07 02	**Waste from the manufacture, formulation, supply and use of plastics, synthetic rubber and man made fibres**
07 02 13	Waste plastic – must conform to BS EN 13432
07 05	**wastes from the MFSU of pharmaceuticals**
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
07 06	**sludges from on-site effluent treatment**
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
15	**Waste packageing; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**Waste packaging, absorbents, filter materials, wiping cloths and protective clothing**
15 01 01	Paper and cardboard packaging – must conform to BS EN 13432 – no man made substances
15 01 02	Plastic packaging – must conform to BS EN 13432
15 01 03	Wood packaging
15 01 05	Composite packaging – must conform to BS EN 13432
16	**Wastes not otherwise specified in the list**
16 03	**off-specification batches and unused products**
16 03 06	organic wastes other than those mentioned in 16 03 05
16 10	**aqueous liquid wastes destined for off-site treatment**
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
18	**Wastes from Human and Animal Health Care and/or Related Research (except kitchen and restaurant wastes not arising from immediate health care)**
18 02	**wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection

Table S2.2 Permitted waste types and quantities	
Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
19	**Waste 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	**Waste from physiochemical treatment of wastes**
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 05	**Wastes from the aerobic treatment of solid wastes**
19 05 01	Non composted fraction of municipal and similar waste
19 05 02	Non composted fraction of animal and vegetable wastes
19 05 03	Off-specification compost from source segregated biodegradable waste
19 06	**Waste from anaerobic treatment of waste**
19 06 03	Liquor from anaerobic treatment of municipal waste
19 06 04	Digestate from anaerobic of source segregated biodegradable 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	**Waste from wastewater treatment works**
19 08 09	Grease and oil mixture containing only edible oils and fat
19 08 12	Sludge from industrial biological treatment
19 08 14	sludges from other treatment of industrial waste other than those mentioned in 19 08 13
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 01	solid waste from primary filtration and screenings
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
20	**Municipal waste (household waste and similar commercial, industrial and institutional waste) including separately collected fractions**
20 01	**Municipal waste (household waste and similar commercial, industrial and institutional waste) including separately collected fractions**
20 01 01	Paper and cardboard
20 01 08	Biodegradable kitchen and canteen waste
20 01 25	Edible oil and fat
20 01 38	Wood (where no none-biodegradable coating or preserving substance present)

Table S2.2 Permitted waste types and quantities	
Maximum quantity	**Less than 25,000 tonnes per annum.** The quantity of solid waste/feed stocks stored within the building shall not exceed the limits specified within section 3.1.3.2 of the document reference Technical Proposal for AD plant dated 01/03/2011. (subject to subsequent revisions to this document to be agreed in writing with the Environment Agency).
Waste code	**Description**
20 02	**Garden and park waste (including cemetery waste)**
20 02 01	Biodegradable waste – animal faeces, manure, garden waste, green waste, horticultural waste, plant tissue, parks and garden waste, hedge and tree trimmings, grass cutting and leafy materials
20 03	**Other municipal waste**
20 03 01	Mixed municipal waste – separately collected biowaste
20 03 02	Wastes from markets – allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables
20 03 03	street-cleaning residues
Note 1	Includes only those materials that can be demonstrated to be of benefit to optimise the production of biogas by buffering pH or offering micronutrients, or are capable of being broken down within the process and in any case will not give rise to compounds or mixtures which could affect the status of the digestate.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source Limit (including unit) [1]	Reference period	Monitoring frequency	Monitoring standard or method
A1 – Exhaust stack on gas engine (shown on drawing reference 2033/819/1/B)	Oxides of nitrogen	500mg/m³	Hourly Average	Annual monitoring	BS EN 14792
	Carbon monoxide	1400mg/m³	Hourly Average	Annual monitoring	BS EN 15058
	Sulphur dioxide	350mg/m³	Hourly Average	Annual monitoring	BS EN 14791
	Total volatile organic compounds including methane	1000mg/m³	Hourly Average	Annual monitoring	BS EN 12619:1999 or BS EN 13526:2002 depending on concentration
	Non methane volatile organic compounds	75mg/m³	Hourly Average	Annual monitoring	BS EN 13649: 2002
Boiler Exhaust	No parameters set	Boiler	N/A	–	_
Pressure relief valves/vents	No parameters set	Over pressure/under pressure vents on hydrolysis tanks one and two. main digester tank final storage tank	N/A	–	_
Biofilter	No parameters set	Biofilter	N/A	–	_

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)	Monitoring frequency	Monitoring standard or method
Surface Water balancing facility. Discharge point reference S1.	Visible oil or grease Visual contamination	Surface water	No visible trace	Weekly (rainfall dependent)	N/A

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Biogas from digesting tanks; waste reception building	Methane Hydrogen sulphide	Continuous	-	Gas monitors calibrated every 6 months to manufacturers requirements
Biogas from digesting tanks.	Flow	Continuous	In accordance with EU weights and measures	
AD plant waste reception building and external storage areas.	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Biofilter (shown on drawing reference 2033/819/1/B)	Temperature, moisture, thatching, compaction. Other parameters as recommended by the manufacturer to ensure optimum efficiency of the biofilter.	Daily or as otherwise recommended by the manufacturer.	N/A	Biofilters should be checked and maintained to ensure appropriate temperature and moisture content on a daily basis.

Table S3.4 Bioaerosol monitoring requirements					
Location or description of point of measurement	**Parameter**	**Threshold limit CFU m-3 (These limits do not apply to upwind measurements)**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
At a minimum of three separate locations, as described in the Industry Standard Protocol	Gram negative bacteria	300	Monthly This may reduce after the first 6 months if agreed in writing by the Environment Agency	In accordance with "A standardised protocol for the monitoring of bioaersols at open composting facilities" jointly developed by the Environment Agency with the Association for Organics Recycling	As described in the Industry Standard Protocol, including all the additional requirements specified therein.
	Total bacteria	1000			
	Aspergillus Fumigatus	500			

Schedule 4 - Reporting

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

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by Table S3.1	A1	Every 12 months	1 January
Emissions to water other than sewer Parameters as required by Table S3.2	S1	Every 4 months	1 January
Bioaerosol monitoring Parameters as required by Table S3.4	As specified in table S3.4	28 days after the monitoring is undertaken	at plant commissioning

Table S4.2: Annual production/treatment

Parameter	Units
Liquid digestate	m^3
Solid digestate	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Electrical energy generated	Annually	MWh
Back-up boiler operating hours	Annually	hours
Total AD feed material used	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	01/06/2011
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	01/06/2011
Water	Form water 1 or other form as agreed in writing by the Environment Agency	01/06/2011
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	01/06/2011
Quarterly waste returns	Form WMS1	01/06/2011

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.

(a) 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	**EPR/AP3033HY**
Name of operator	**Anglesey Ecoparc Mon Limited**
Location of Facility	**Mona Anaerobic Digestion Plant, Mona Industrial Estate, Holyhead, Gwynedd, LL65 4RJ**
Time and date of the detection	

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

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be 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 Anglesey Ecoparc Mon Limited

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.

"annually" means once every year.

"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.

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

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

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

"D" means a disposal operation provided fro in Annex IIA to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste.

"disposal" means any of the operations provided for in Annex IIA to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 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 or background concentration 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.

"*fugitive emission*" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"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, and should be read in conjunction with the term "sealed drainage system" (below).

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"pollution" means emissions as a result of human activity which may –

"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 IIB to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 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: (a) no liquid will run off the surface otherwise than via the system (b) except where they may lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump.

"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.

"WFD" means Waste Framework Directive (Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 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.

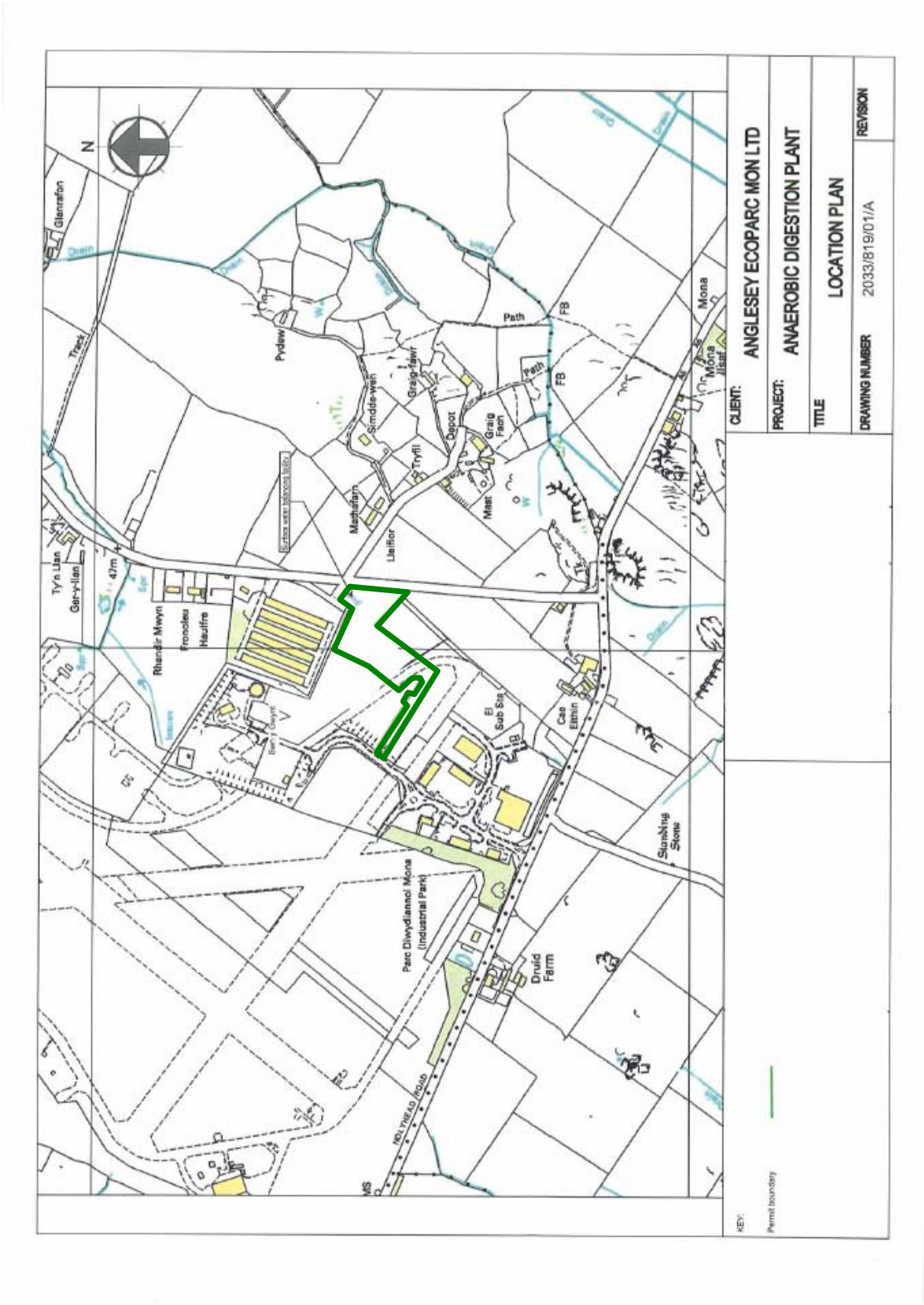
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

(a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, 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 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

Schedule 7 - Plans

Site location plan



Site Layout Plan