Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Grays Biogas Ltd

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

Permit number

EPR/AP3033HY

Mona 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 lies to the West, Bodffordd to the North and Rhostrehwfa to the East. Other major landmarks include the Cefni Reservoir and lies 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.

The industrial site has similar users i.e. a waste transfer station opposite, but most activity is situated around the entrance to the estate. The area is predominantly rural in its setting and supports numerous farms and associated businesses. Adjacent businesses include a poultry farm and highways depot.

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

The permit is for the operation of an anaerobic digestion plant with further treatment. The AD process utilises the breakdown of organic matter by naturally occurring bacteria in the absence of air resulting in the production of biogas and bio-fertiliser.

The feedstock associated with this plant is predominantly chicken litter, glycerine, dairy DAF effluent and biomass including maize and rye silage. The total annual throughput is 49,500 tonnes per year.

The permit is required to authorise the recovery of non-hazardous waste with a capacity exceeding 100 tonnes per day involving biological treatment, which is an activity covered by the description in Section 5.4 Part A (1)(b)(i) in Schedule 1 of the Environmental Permitting Regulations 2016. A second listed activity 4.3 Part A (1) (a), authorises the further treatment of the material to produce an ammonium based fertiliser.

The process involves solid wastes being delivered into the building in vehicles which will discharge the waste into an unloading bay. The main solid material for the plant is chicken litter; this will be stored within a building which benefits from an odour control system. The chicken litter will be transferred from the building to the feed hoppers in the yard by a telehandler, from the feed hoppers the chicken litter enters the primary digesters. The silage will be stored outside within covered silage clamps and transferred to the feed hoppers by telehandler, from the feed hoppers the silage enters the primary digesters.

Raw liquid waste materials will be discharged from tankers outside the building into a raw waste tank which will feed the primary digesters, the primary digester tanks have a capacity of 2592m^3 each. This is a gas tight cylindrical system in which the anaerobic digestion takes place. All tanks that are outside of the main containment area are fully bunded. The digester tanks, storage tanks and post digester tank are located within a containment area that is sealed and bunded. Gas is produced from this process which will be used to fuel a gas engine with a total thermal input of 4.68MW. The gas engine will in turn produce electricity. The digestate is stored within an enclosed tank prior to further treatment or removal from site.

Material from the post digester is then fed into a solid and liquid separation process. The plant comprises of the pasteurisation, separation, drying and evaporation processes along with the in-vessel composting process (including press screw separation).

The digestate treatment operations being carried out consist of two drying systems; evaporator and belt dryer. Each is equipped with a washing/scrubbing system which removes ammonia from the air flow leaving the dryer unit. To remove the ammonia the acid-base reaction principle is used by adding sulphuric acid to the ammonia washing system, which then leaves as an ammonium sulphate solution. Ammonium Sulphate has properties equal to typical fertilizers. The dry material (compost) is then stored in a separate building prior to removal off-site. If any of the digestate is not sent for further treatment it will be removed from site via sealed pipe-work to a sealed tanker.

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/AP3033HY/A001	Duly made 13/10/10	
Additional information requested	15/12/10	
Additional information received	06/01/11	
Additional information received	15/02/11	
Additional information received	01/03/11	
Permit EPR/AP3033HY/A001 determined	27/06/11	
Application for variation EPR/AP3033HY/V002	Duly Made 20/02/12	Change of technical provider. Change of operator name
Additional information requested	16/03/12	Requested by email
Additional information received	15/03/12	Received by email, part only
Additional information received	20/03/12	Received by email, remainder
Additional information requested	23/03/12	Requested by email
Additional information received	03/04/12	Received by email
Variation notice EPR/AP3033HY/V002 Issued	11/05/12	
Variation notice EPR/AP3033HY/V003 Issued	23/05/12	Admin variation
Application EPR/AP3033HY/V004	Duly Made 11/04/16	
Additional information received	16/05/16	Gas Flare Specification

Status log of the permit		
Description	**Date**	**Comments**
Additional information received	25/05/16	Information received relating to the Site Condition report and site boundary
Additional information received	01/07/16	Revised waste codes table
Additional information received	30/06/16	Revised Site Boundary Plan
Variation notice EPR/AP3033HY/V004 Issued	06/09/16	Consolidated permit issued
Application EPR/AP3033HY/V005	Duly Made 25/07/16	
Additional Information requested	22/09/16	Schedule 5 request sent – additional air quality modelling
Additional Information received	28/10/16 and 22/12/16	Information received relating to air quality assessment and containment solutions.
Additional Information received	20/01/17	Information received relating to containment solutions.
Consolidated permit EPR/AP3033HY/V005 Issued	24/04/17	Consolidated permit issued

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number
EPR/AP3033HY

Natural Resources Body for Wales ("Natural Resources Wales") authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Grays Biogas Ltd ("the operator"),

whose registered office is

Beeston Lodge
Beeston Lane
Spixworth
Norwich
NR10 3TN

company registration number 06414275

to operate an installation at

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

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

Name	Date
ADavies	**24/04/17**

Authorised on behalf of Natural Resources Wales

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 or other approval issued by Natural Resources Wales.

1.2 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A15.) The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A15.) The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

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

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

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

2.1.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A15) Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

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

2.3 Operating techniques

2.3.1 (a) For the following activities referenced in schedule 1, table S1.1 (A1 to A15.) 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 Natural Resources Wales.

(b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 and S2.2 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(s) S2.1 and 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 Natural Resources Wales.

2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales 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 S1.4A have been completed.

2.5.2 The operations specified in schedule 1 table S1.4B shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2.

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

3.1.3 For the following activities referenced in schedule 1, table S1.1 (A1 to A15) where a substance is specified in schedule 3 table S3.1 or S3.2 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.

3.1.4 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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Natural Resources Wales, 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;

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 Natural Resources Wales.

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, S3.2, S3.3, S3.4; unless otherwise agreed in writing by Natural Resources Wales.

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 Natural Resources Wales, 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 Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Natural Resources Wales, 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 Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Natural Resources Wales, submit to Natural Resources Wales 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 Natural Resources Wales

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 Natural Resources Wales, 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 Natural Resources Wales.

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A15) A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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 Natural Resources Wales, 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 Natural Resources Wales, 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 Natural Resources Wales 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.

4.2.6 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Solvent Emissions Directive, as specified in Article 9(1) of the Directive, by 31 January each year in respect of the previous year.

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 Natural Resources Wales,

(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 Natural Resources Wales, 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.

4.3.4 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

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) Natural Resources Wales 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 Natural Resources Wales 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, Natural Resources Wales 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 immediately, in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
A1	S5.4 Part A (1)(b)(i)	Recovery of non-hazardous waste with a capacity exceeding 100 tonnes per day involving: (i) Biological Treatment **R3:** Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological/transformation processes) **R5:** Recycling/reclamation of other inorganic materials **R13:** Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste was produced)	The total annual throughput – up to 49,500 tonnes of liquid and solid organic waste Daily treatment capacity of 250 t/day Maximum waste storage is 29,885m^3 Waste acceptance, storage and pre-treatment, including maceration Gas cleaning by biological or chemical scrubbing and upgrading to bio-methane Gas storage and drying All solid wastes must be stored inside the waste reception /chicken litter building The waste reception building will be provided with fast acting roller shutter doors provided for access and egress Bulking and mixing will only take place under instruction from appropriately trained personnel Exhaust air gas from the chicken litter building and waste storage tanks will pass through abatement prior to discharge to atmosphere Activities shall be carried out on an impermeable surface with sealed drainage system Where separate fractions do not meet PAS 110 Quality Protocol, they will continue to be treated as wastes and the procedures for storage of wastes will be followed

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**
A2	S4.3 Part A(1)	Producing (including any blending which is related to their production) phosphorus-nitrogen- or potassium-based fertilisers (simple or compound fertilisers). **D9:** Physico-chemical treatment which results in compounds or mixtures that are discarded. **R3:** Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological/transformation processes) **R5:** Recycling/reclamation of other inorganic materials	Digestate to be transferred via sealed pipework to the separation and drying process area. The evaporator and dryer processes are to be undertaken within an enclosed building and both processes are to have odour control systems installed and bunding of the building. Operations to be carried out on an impermeable concrete hardstanding. Waste liquids to be diverted to site leachate drainage Ammonium Sulphate to be stored within a 107m^3 storage tank within a bunded area. Annual fertiliser production capacity of 2346 t/annum All activities are to be carried out within a bunded and contained area with a sealed drainage system. Leak detection system to be installed on all Phase 2 equipment and tanks
Directly Associated Activity			
A3	Physical pre-treatment of wastes	Mechanical treatment of waste including screening, mixing and blending. D9: Physico-chemical treatment which results in compounds or mixtures that are discarded.	
A4	Combustion of resultant Biogas	The combustion of fuel (biogas and oil) in a CHP engine with a thermal rating less than 5MW for the purpose of generating electricity and heat for use within the installation and national grid. R1: Use principally as a fuel or other means to generate electricity.	From receipt of biogas in the installation through to the combustion process and subsequent delivery of the electricity and the generation of heat for use by the anaerobic digestion process
A5	Biogas storage	Storage of biogas in floating roof digesters.	From storage of biogas produced from anaerobic digestion to being used within a combustion engine.
A6	Gas Flare	Use of an auxiliary flare required only for short periods of breakdown or maintenance D10: Incineration on land	

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**
A7	Raw materials storage	Storage of silage in a clamp covered by a plastic membrane Storage of lubrication oil used in the CHP engine	From receipt of raw materials to their use within the installation
A8	Digestate storage	Storage of liquid digestate in bulk concentration tanks	From storage of digestate to dispatch for off-site use
A9	Waste oil storage	Storage of used lubrication oil used in the CHP engine.	From use within the installation to removal off-site
A10	Waste liquid storage	Storage of leachate within the leachate storage tank.	Leachate from the AD process and storage of silage
A11	Solid waste storage	Other solid waste materials are to be stored within the enclosed building with active odour control	
A12	Scrubber	Waste reception building and IVC odour control unit	Modular odour control system. Ipur unit consisting of cartridges containing catalyst coated foamed glass and UV-C lamps
A13	Drying and composting activities	In-vessel composting of digestate from anaerobic digestion process	Annual compost production capacity of 1200t/annum Both the compost and the solid digestate are to be stored in designated storage sheds All activities are to be carried out on an impermeable surface within a bunded and contained area with a sealed drainage system Leak detection system to be installed on all Phase 2 equipment and tanks
A14	Chemical Storage	Storage of Sulphuric acid for use in the drying process scrubbers	Sulphuric acid to be stored within a 4m^3 double-skinned and bunded tank. Filling connection to be protected by barriers.

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**
A15	Storage of recyclable materials	Storage of finished compost product **R3:** Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological/transformation processes) **R5:** Recycling/reclamation of other inorganic materials **R13:** Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste was produced)	Compost and dried digestate to be stored in an enclosed building

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Response to Part C2 of the application, Q3d – management systems. Doc ref: Environmental Management System	16/03/16
Application	Response to Part C2 of the application, Q5c – Non-Technical Summary	16/03/16
Application	Response to Part C3 of the application, Q1 – Appendix D – Raw materials and waste optimisation	16/03/16
Application	Response to Part C3 of the application, Q3b – Appendix A – Plant odour management plan and odour assessment	16/03/16
Application	Response to Part C3 of the application, Q3b – Appendix B – Noise and Vibration management plan	16/03/16
Application	Response to Part C3 of the application, Q6a – Appendix E – Basic and specific measures to improve energy efficiency	16/03/16
Application	Application document Appendix C – Fugitive emissions and monitoring	16/03/16
Application	Application document Appendix H- Health & Safety policy & guidelines	16/03/16
Application	Application document Appendix L – Accident Management plan	16/03/16
Application	Application document Appendix N – CHP engine specification and user manual	16/03/16
Application	Application document Appendix O – Drainage plans and summary	16/03/16
Application	Application document Appendix R – Mona AD Executive summary	16/03/16
Application	Application document Appendix S – Fire prevention and rescue plan (FPRP)	16/03/16
Application	Application document - Site Specific Bio-aerosol risk assessment	16/03/16
Application	Pipe bridge Foundation Drawing – Drawing number 2341.PH2.SK.01	16/03/16

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Email from operator	Stack calculations for new flare to be used on site	16/05/16
Email from operator	Site plan with boundary – Document A2529UK	25/05/16
Email from operator	Reception building waste delivery and digestate transfer odour information	05/07/16
Application	EMS Appendix - Mona AD Executive summary	25/07/16
Application	EMS Appendix – Mona Key Issues, Phase 1 and Phase 2	25/07/16
Application	Appendixes A – S of the site EMS	25/07/16
Additional Information Received	Schedule 5 response in relation to Air Quality assessment and modelling	28/10/16
Additional Information Received	Additional information relating to new/updated drainage proposals and drawings	22/12/16
Additional Information Received	Revised Drainage Design document, ref – 170124_Revision Phae_1_rev5	24/01/17
Additional Information Received	Email received explaining containment arrangements for the Sulphuric Acid system	09/02/17
Additional Information Received	2nd Schedule 5 response in relation to containment solutions for Phase 2 equipment and tanks – all parts of response	20/02/17
Additional Information Received	Revised EMS, accident management plan and environmental policy provided by email	27/02/17

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The operator shall monitor emissions from the gas engines for the determinants 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. A copy of the impact assessment shall be submitted to Natural Resources Wales	Within 6 months of completion of commissioning of the plant
IC2	The operator shall undertake a noise assessment in accordance with procedures given in BS4142:2014 (description and measurement of environmental noise) or other methodology as agreed in writing Natural Resources Wales. 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 Natural Resources Wales in the form of a report, with interpretation of the results and conclusions and recommendations drawn.	Within 6 months of completion of commissioning of the plant
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 and the Dispersion Modelling Assessment, 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 Natural Resources Wales detailing improvements required (where applicable) to prevent and minimise odour emissions and ensure the installation does not cause an odour nuisance.	Within 6 months of completion of commissioning of the plant

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC4	The operator shall submit 'the as built drainage plan' as soon as the plant has been built. On completion of the plant a copy of the drawing shall be submitted to Natural Resources Wales.	Within 1 month of completion of commissioning of the plant

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
1	The operator shall confirm that all containment, bunding and attenuation lagoon investigations/repairs proposed by the document; 819_3407_Schedule 5 II_response-V2 and 170217_Revision EP Mona_rev2 received on the 20th February 2017 are in-place prior to the operation of the Phase 2 plant and equipment,

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1	Anaerobic Digestion Plant	The operator shall not accept any of the following waste codes without seeking prior approval from Natural Resources Wales. A request must be sent to NRW with justification showing that these waste streams will not cause odour issues; 19 05 01, 19 05 02, 19 05 03, 19 05 99, 20 01 08, 20 01 99, 20 02 01, 20 03 01, 20 03 02, 20 03 03, 20 03 99

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Biogas Methane (60-65%) Carbon Dioxide (35-40%) Other (<1%)	Combusted to produce electricity and heat. Biogas was selected as a fuel because it is readily available as a by-product from the AD process.
Lubricating Oil (mineral or synthetic oil)	To reduce friction between moving surfaces in the CHP engine.
Gear Oil (mineral oil)	To reduce friction between moving surfaces in the CHP engine.
Heating Oil (mineral oil)	Start-up fuel for the CHP engines.
Red Diesel fuel	To power the bob cat machinery used on-site. Used also for the emergency generator.
Antifreeze (ethylene glycol)	Antifreeze for engine cooling systems.
Micronutrients	Added into the digesters as a feedstock.
ODR (neutralising additive)	Odour neutraliser for use in the feed hopper neutralising spray system.
Sulphuric Acid (H_2SO_4)	Used for ammonia removal in Phase 2 odour control unit.

Table S2.2 Permitted waste types and quantities for use in the anaerobic digestion process	
Maximum quantity	**The total annual throughput must not exceed 49,500 tonnes per annum ABPR Waste will not be accepted**
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
02 01 03	plant-tissue waste
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 01 99	wastes not otherwise specified
02 02	**Wastes from the preparation and processing of meat, fish and other foods of animal origin**
02 02 01	sludges from washing and cleaning
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 02 05	sludges from on-site effluent treatment
02 03	**Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment

Table S2.2 Permitted waste types and quantities for use in the anaerobic digestion process	
Maximum quantity	**The total annual throughput must not exceed 49,500 tonnes per annum** **ABPR Waste will not be accepted**

Waste code	Description
02 03 99	wastes not otherwise specified
02 04	**Wastes from sugar processing**
02 04 03	sludges from on-site effluent treatment
02 04 99	wastes not otherwise specified
02 05	**Wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 05 99	wastes not otherwise specified
02 06	**Wastes from the baking and confectionary industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 06 99	wastes not otherwise specified
02 07	**Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirit distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
02 07 99	wastes not otherwise specified
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 01 99	wastes not otherwise specified
03 03	**Wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
03 03 99	wastes not otherwise specified
07	**WASTES FROM ORGANIC CHEMICAL PROCESSES**
07 01	**Wastes from the manufacture, formulation, supply and use (MSFU) 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 01 99	wastes not otherwise specified (see note 1)
07 02	**Wastes from the manufacture, formulation, supply and use (MSFU) of plastics, synthetic rubber and man-made fibres**
07 02 13	waste plastics
07 06	**Wastes from the manufacture, formulation, supply and use (MSFU) of fats, grease soaps, detergents, disinfectants and cosmetics**

Table S2.2 Permitted waste types and quantities for use in the anaerobic digestion process	
Maximum quantity	**The total annual throughput must not exceed 49,500 tonnes per annum** **ABPR Waste will not be accepted**

Waste code	Description
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
12	**WASTES FROM THE SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS**
12 01	**Wastes from the shaping and physical and mechanical surface treatment of metals and plastics**
12 01 05	plastic shaving and turnings (note 2)
15	**WASTES PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECFIED**
15 01	**Packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging (see note 3)
15 01 02	plastic packaging (see note 3)
15 01 05	composite packaging (see note 3)
15 01 06	mixed packaging (see note 3)
15 01 09	textile packaging (see note 3)
16	**WASTES NOT OTHERWISE SPECIFIED ON 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 substances destined for off-site treatment**
16 10 02	aqueous liquid waste other than those mentioned in 16 10 01
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
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 treatment of wastes (including dechromation, decyanidation, neutralisation)**
19 02 03	premixed wastes only of non-hazardous 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 (see note 4)
19 05	**Wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal waste
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 05 99	wastes not otherwise specified
19 06	**Wastes from anaerobic treatment of municipal 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 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
19 08 14	sludges from other treatment of industrial waste water 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**

Table S2.2 Permitted waste types and quantities for use in the anaerobic digestion process

Maximum quantity	**The total annual throughput must not exceed 49,500 tonnes per annum** **ABPR Waste will not be accepted**

Waste code	Description
19 09 01	solid waste from primary filtration and screening
19 09 02	sludges from water clarification
19 09 06	solutions and sludges from regeneration of ion exchanges
19 12	**Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 04	plastic and rubber (see note 2)
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 12	other wastes (including mixture of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**Separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 08	biodegradable kitchen and canteen waste
20 01 11	textiles
20 01 25	edible oil and fat
20 01 38	wood (where no biodegradable coating or preservative)
20 01 39	plastics (see note 2)
20 01 99	wastes not otherwise specified
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
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 99	wastes not otherwise specified

Notes

1. Includes only materials that can be demonstrated to be of benefit to the overall health of the plant 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.
2. Only materials meeting BS EN 13432 will be accepted.
3. Packaging materials which are not suitable for anaerobic digestion but which contains organic materials capable of extraction through de-packaging will be accepted. Only the contents will be introduced into the digester.
4. Codes which may be suitable for glycerol.

Schedule 3 – Emissions and monitoring

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

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Exhaust stack on CHP Gas Engine	Oxides of Nitrogen (expressed as NO_2)	500 mg/m^3	Hourly Average	Annual	BS EN 14792
		Sulphur Dioxide (SO_2)	350 mg/m^3			BS EN 14791
		Carbon Monoxide (CO)	1400 mg/m^3			BS EN 15058
		Total VOC's	1000 mg/m^3			BS EN 12619:1999 or BS EN 13529:2002 depending on concentration
		nm-VOC's	75 mg/m^3			BS EN 13649:2002
A2	Auxiliary Flare Stack Note 1	Oxides of Nitrogen (expressed as NO_2)	150mg/m^3	Hourly Average	Annual	BS EN 14792
		Total VOC's	10mg/m^3			BS EN 12619:1999 or BS EN 13529:2002
		Carbon Monoxide (CO)	50mg/m^3			BS EN 15058
A3	Odour Control Unit	No Monitoring Required				
A4	Pressure Relief Valves/Vents	No Monitoring Required				

Note 1: Annual monitoring is only required when emergency flare operates in excess of 10% of the time, taken on an annual assessment period.

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

Emission point ref. & location	Source	Parameter	Limit (including unit)	Monitoring frequency	Monitoring standard or method
Surface water balancing facility. Discharge point ref. S1	Surface Water	Visible oil or grease	No Visible Trace	Weekly (discharge and rainfall dependant)	Visual Check
		Visual contamination			
		Ammonia	0.3ppm		Instantaneous Ammonia Reading

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Biogas from digesters	Flow	Continuous	In accordance with EU weights and measures regulations	
Biogas from digesters	Methane (CH_4) Hydrogen Sulphide (H_2S) Carbon Dioxide (CO)	Continuous	None Specified	Gas monitors calibrated every 6 months to manufacturers requirements
Digesters, storage tanks, waste reception building, drying hall, compost storage area	Odour	Daily	Olfactory monitoring	Odour detection at site boundary
Amount of Sulphuric Acid used per day		Daily		
Amount of biogas used by the CHP unit per day	t/day	Daily	As agreed in writing with Natural Resources Wales	

Table S3.4 Bio-aerosol 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 3 separate locations, as described in the Evaluation of Bio-aerosols document submitted with the application	Gram negative bacteria	300	Monthly This may reduce after the first six months if agreed in writing by Natural Resources Wales	In accordance with 'A standardised protocol for the monitoring of bio-aerosols at open composting facilities'	As described in the Industry Standard protocol, including all the additional requirements specified within
	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 condition 3.3.1.	A1, A2	Every 12 months	1st January 2016

Table S4.2: Annual production/treatment	
Parameter	**Units**
Biogas produced by the AD facility	m^3
Liquid Digestate	m^3
Solid Digestate	Tonnes
Total amount of compost produced	Tonnes
Total amount of Ammonium Sulphate produced	Tonnes
Total amount of waste treated	Tonnes
Total amount of biomass treated	Tonnes
Total amount of Sulphuric Acid used	Tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Power Output	Annually	MWh
Energy Efficiency		MWh/m^3 biogas
Electrical energy exported to the grid		MWh
Electrical energy drawn from the grid		MWh
Water Usage		m^3
Operational time of flare		% of operational time

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	01/01/16
Performance Parameters	Form performance 1 or other form as agreed in writing by Natural Resources Wales	01/01/16
Water Usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	01/01/16

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**

(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:	
To be notified immediately	
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

""Annex I" means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Annex II" means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"authorised officer" means any person authorised by Natural Resources Wales 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.

"best available treatment, recovery and recycling techniques" shall have the meaning given to it in the document published jointly by the Department for Environment, Food and Rural Affairs, the Welsh Assembly Government and the Scottish Executive on 27th November 2006, entitled "Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRRT) and Treatment of Waste Electrical and Electronic Equipment (WEEE);

"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 for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"groundwater protection zones 1 and 2" have the meaning given in the document titled "Groundwater Protection: Policy and Practice" published by the Environment Agency in 2006.

"maturation" means a stage when by agitating and turning the compost it no longer results in reheating and the monitored temperature falls to ambient without the compost being too dry or anaerobic. Phytotoxins that are formed during the 'active' composting phase are metabolised by micro-organisms, which will result in the final material not being harmful to plants. This usually coincides with drop in pH toward neutral, and the conversion of ammonia into nitrates and recolonisation of beneficial micro-organisms. The maturation phase may need active management by turning to prevent the material becoming anaerobic.

"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 established by Commission Decision 2000/532/EC as amended from time to time (the 'List of Wastes Decision') and in relation to hazardous waste, includes the asterisk.

"ABPR" means Animal By-Products Regulations

"authorised officer" means any person authorised by Natural Resources Wales 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.

"background concentration" means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"disposal". Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"hazardous property" has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

Pests" *means Birds, Vermin and Insects.*

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

"recovery" means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"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

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 - Site plan

END OF PERMIT