

# Standard rules SR2012 No12

The Environmental Permitting (England & Wales) Regulations 2010

# **Standard Rules 2012 No 12 –** Anaerobic digestion facility including use of the resultant biogas

Waste Operation – treatment capacity no more than 100 tonnes per day

# Introductory note

This introductory note does not form part of these standard rules.

When referred to in an environmental permit, these rules will allow the operator to operate an anaerobic digestion facility accepting up to 100 tonnes waste per day of specified biodegradable wastes. The permitted activities include the anaerobic digestion of wastes, the combustion of the resultant biogas in gas engines, the use of gas turbines, boilers, fuel cells and treatment of the biogas. The anaerobic digestion of waste or waste-containing mixtures is limited to no more than 100 tonnes per day. For anaerobic digesters operating above this threshold, standard rules for installation activities are available.

Any wastes controlled by the Animal By-Products Regulations must be treated and handled in accordance with any requirements imposed by those Regulations.

These standard rules do not allow any emission into surface waters or groundwater except clean water from roofs and parts of the site not used for waste activity including storage of wastes. However, under the emissions of substances not controlled by emission limits rule, biogas condensate, treated digestate and waste waters may be discharged to a sewer subject to a consent issued by the local water company.

These rules do not apply to installations with more than one operator.

**End of Introductory Note** 

## **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 these standard rules 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 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 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.
- 1.2.2 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 table 2.1 below ("the activities").

R13: Storage of wastes pending the operations numbered R1, R3 and D10  R3: Recycling or reclamation of organic substances that are not used as solvents  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R1: Use principally as a fuel or other means to generate energy.  R2: Use of pressure including screening and upgrading to biomethane.  R2: Use of an auxiliary flare required only for short periods of breakdown or maintenance of facility.  R2: Use of pressure release valves to protect the integrity of the plant. Such systems should not be used routinely to vent unburnt biogas  Anaerobic digestion of waste or waste containing mixtures shall not exceed 100 tonnes per day	Table 2.1 Activities	
activities:  Physical treatment of waste including shredding, sorting, screening, compaction, baling, mixing and maceration.  R1: Use principally as a fuel or other means to generate energy.  Waste pasteurisation and chemical addition.  Gas cleaning and upgrading to biomethane.  Gas storage and drying.  Treatment of digestate including screening agents (polymers) or drying.  Maturation of digestate.  Burning of biogas in gas engines, gas turbines, boilers and use in fuel cells.  Use of an auxiliary flare required only for short periods of breakdown or maintenance of facility.  Use of pressure release valves to protect the integrity of the plant. Such systems should not be used routinely to vent unburnt biogas  Anaerobic digestion of waste or waste containing mixtures shall not exceed 100 tonnes per day	Description of activities	Limits of activities
The maximum throughput of animal wastes shall be no more than10 tonnes per day.  The maximum quantity of hazardous waste received, stored and treated shall not exceed 10 tonnes per day.	R13: Storage of wastes pending the operations numbered R1, R3 and D10  R3: Recycling or reclamation of organic substances that are not used as solvents  R1: Use principally as a fuel or other means	Anaerobic digestion and the following associated activities:  Physical treatment of waste including shredding, sorting, screening, compaction, baling, mixing and maceration.  Waste pasteurisation and chemical addition.  Gas cleaning and upgrading to biomethane.  Gas storage and drying.  Treatment of digestate including screening to remove plastic residues, centrifuge or pressing, addition of thickening agents (polymers) or drying.  Maturation of digestate.  Burning of biogas in gas engines, gas turbines, boilers and use in fuel cells.  Use of an auxiliary flare required only for short periods of breakdown or maintenance of facility.  Use of pressure release valves to protect the integrity of the plant. Such systems should not be used routinely to vent unburnt biogas  Anaerobic digestion of waste or waste containing mixtures shall not exceed 100 tonnes per day  The maximum throughput of animal wastes shall be no more than 10 tonnes per day.

2.1 2 All process plant and equipment shall be commissioned, operated and maintained, and shall be fully documented and recorded, in accordance with the manufacturers recommendations.

#### 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 attached the permit.
- 2.2.2 The permitted activities must not be carried out within:
  - a) 10 metres of any watercourse;
  - b) a groundwater source protection zone 1, or if a source protection zone has not been defined then within 50 metres of any well, spring or borehole used for the supply of water for human consumption. This must include private water supplies;
  - c) 200 metres from the nearest sensitive receptor.

- 2.2.3 The gas engine stack must be a minimum of 3 metres in height and must not be located within:
  - a) 200 metres of a European Site or a Site of Special Scientific Interest (excluding any site designated solely for geological features).

## 2.3 Waste acceptance

- 2.3.1 Waste shall only be accepted if:
  - (a) it is of a type and quantity listed in table 2.3 of these rules;
  - (b) it conforms to the description in the documentation supplied by the producer and holder;
  - (c) the waste is biodegradable; and
- 2.3.2 Records demonstrating compliance with rule 2.3.1 shall be maintained.

	Naste types				
Maximun	Quantities				
The total quantity of waste accepted at the site shall be no more than 100 tonnes in any one day					
Waste Codes	Description				
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING				
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing				
02 01 01	sludges from washing and cleaning – food processing waste, food washing waste				
02 01 02	animal tissue waste including blood, animal flesh, fish processing waste, fish carcasses, poultry waste				
02 01 03	plant tissue waste including husks, cereal dust, waste animal feeds, off-cuts from vegetable and fruit and other vegetation waste				
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 including blood, animal flesh, fish processing waste, fish carcasses, poultry waste				
02 02 03	materials unsuitable for consumption or processing				
02 02 04	sludges from on-site effluent treatment				
02 02 99	sludges from gelatine production, animal gut contents				
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation				
02 03 01	sludges from washing, cleaning peeling, centrifuging and separation				
02 03 04	materials unsuitable for consumption or processing				
02 03 05	sludges from on-site effluent treatment				
02 03 99	sludge from production of edible fats and oils to include 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				
02 04 99	other wastes				
	wastes from the dairy products industry				

Table 2.3	Waste types				
	n Quantities				
The total q	uantity of waste accepted at the site shall be no more than 100 tonnes in any one day				
Waste					
Codes	Description				
02 05 01	materials unsuitable for consumption or processing including solid and liquid dairy products milk, food processing wastes, yoghurt, whey				
02 05 02	sludges from on-site effluent treatment				
02 06	wastes from the baking and confectionery industry				
02 06 01	materials unsuitable for consumption or processing including food condemned, food processing wastes, biscuits, chocolate, yeast, bread, bakery wastes				
02 06 03	sludges from on-site effluent treatment				
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)				
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials including brewing waste, food processing waste, fermentation waste				
02 07 02	wastes from spirits distillation including spent grains, fruit and potato pulp, sludge from distilleries				
02 07 04	materials unsuitable for consumption or processing including brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks, fruit juice				
02 07 05	sludges from on-site effluent treatment				
02 07 99	spent grains, hops and whisky filter sheets/ cloths, yeast and yeast like residues, sludge from production process.				
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD				
03 03	wastes from pulp, paper and cardboard production and processing				
03 03 02	green liquor sludge				
03 03 08	paper and cardboard - not allowed if any non biodegradable coating or preserving substance present.				
03 03 10	fibre rejects and sludges i.e. paper pulp (de-inked only), paper fibre				
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES				
04 01	Wastes from the leather and fur industry				
04 01 01	fleshings and lime split wastes				
04 01 05	tanning liquor free of chromium				
04 01 07	sludges not containing chromium				
04 02	waste from the textile industry				
04 02 10	organic matter from natural products, e.g. grease, wax WASTES FROM ORGANIC CHEMICAL PROCESSES				
07	wastes from the manufacture, formulation, supply and use of basic organic chemicals				
<b>07 01</b> 07 01 08*	glycerol waste from bio-diesel manufacture from non-waste vegetable oils only				
15	WASTE PACKAGING; 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 – not allowed if any non biodegradable coating or preserving substance present. Excludes laminates such as Tetrapaks.				
15 01 02	Biodegradable plastic packaging – must be independently certified to BS EN 13432				
15 01 03	Untreated wooden packaging – must be independently certified to BS EN 13432  Untreated wooden packaging – not allowed if any non biodegradable coating or preserving substance present.				
15 01 05	composite packaging - must conform to BS EN 13432 and not allowed if any non biodegradable coating or preserving substance present.				
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST				
16 10	Aqueous liquid wastes destined for off-site treatment				
16 10 02	Liquor/leachate from a composting process that accepts waste input types listed in these standard rules only				

Table 2.3 Waste types					
Maximum Quantities					
The total quantity of waste accepted at the site shall be no more than 100 tonnes in any one day					
Waste Codes	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	wastes from physiochemical treatments of waste				
19 02 03	waste types listed within this table, Table 2.3, that have been mixed together only				
19 02 06	sludge types from waste listed within this table, Table 2.3, that have been heat treated only				
19 02 10	glycerol not designated as hazardous i.e excludes EWC code 19 02 08				
19 06	waste from anaerobic treatment of waste				
19 06 03	liquor from anaerobic treatment of municipal waste (from a process that treats wastes which are listed in these standard rules only)				
19 06 04	digestate from anaerobic treatment of source segregated biodegradable waste (from a process that treats wastes which are listed in these standard rules only)				
19 06 05	liquor from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in these standard rules only)				
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in these standard rules only)				
19 08	wastes from wastewater treatment works				
19 08 09	grease and oil mixture containing only edible oils and fats				
19 08 12	sludge from industrial biological treatment				
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified				
19 12 12	waste types listed within this table, Table 2.3, that have been subjected to mechanical treatment only				
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS				
20 01	municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions				
20 01 01	paper and cardboard— not allowed if any non biodegradable coating or preserving substance present. Excludes laminates such as Tetrapaks.				
20 01 08	kitchen and canteen waste				
20 01 25	edible oil and fat				
20 01 38	untreated wood where no non-biodegradable coating or preserving substance present				
20 02	garden and park wastes (including cemetery waste)				
20 02 01	biodegradable waste				
20 03	other municipal wastes				
20 03 01	mixed municipal waste - separately collected biowastes				
20 03 02	wastes from markets, allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables.				

# 2.4 Operating techniques

2.4.1 The activities shall be operated using the techniques and in the manner described in Table 2.4 below

#### **Table 2.4 Operating Techniques**

#### Measures

- 1) All bulking, transfer and pre-treatment of waste shall be carried out in an enclosed building.
- 2) All waste solids, liquids and sludges shall be stored and processed on an impermeable surface with a sealed drainage system. Wastes shall be stored or treated within enclosed containers, reactor vessels or enclosed well ventilated buildings fitted with a biofilter and/or scrubbing system. The biofilter must be specifically designed to minimise the release of odour, bioaerosols and microorganisms and maintained for the process undertaken and be fit for purpose.
- 3) All storage and process tanks shall be located on an impermeable surface (a hydraulic permeability of not greater than 1x 10<sup>-9</sup> m/s) with sealed construction joints within a bunded area. The bunded area shall have a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater. Bunds shall be regularly inspected to ensure that bunds filled by rainwater are regularly emptied. Connections and fill points should be within the bunded area and no pipework should penetrate the bund wall. Underground tanks shall have secondary containment and appropriate leak detection. No less than 95% of the bund capacity shall be maintained at all times.
- 4) Digestate shall be stored within covered containers or covered lagoons and should be of a design and capacity fit for purpose. Lagoons shall have a free board of 750 mm.
- 5) Gas engine stack height shall be no less than 3 metres.
- 6) All biogas condensate shall be discharged into a sealed drainage system or recirculated back to the digester.
- 7) Emissions of unburned biogas and the operation of the auxiliary flare shall be minimised. Any significant emissions of unburned biogas (including the operation of the pressure relief valves) and the operation of the auxiliary flare shall be recorded.

# 3 Emissions and monitoring

### 3.1 Emissions to air, water or land

- 3.1.1 There shall be no point source emissions to air, water or land, except from the sources and emission points listed in table 3.1.
- 3.1.2 The limits given in table 3.1 shall not be exceeded

Emission Point and Source	Parameter	Limit (including units)	Monitoring Frequency and Standard or Method
Stacks on engines	Oxides of Nitrogen Carbon monoxide	500 mg/m <sup>3</sup> 1400 mg/m <sup>3</sup>	Annual monitoring
S S	Suphur dioxide 350 mg/m³ Total volatile 1000 mg/m³ organic	350 mg/m <sup>3</sup>	Monitoring equipment, techniques, personnel and organisations employed for the engine stack emissions monitoring programme
		(including the measurement of exhaust gas temperature) shall have either MCERTS certification or MCERTS accreditation (as appropriate).	
		Uncertainty allowance as stated in EA guidance LFTGN08 v2 2010.	
		To ensure effective plume breakaway, minimum stack gas exit velocity shall be no less than 15 m/s or 12 m/s where stack volume flow is less than 0.5 m³/s; OR The gas exit temperature shall be no less than 200°C	
Stacks on boilers burning biogas	Oxides of Nitrogen	No limit set	None specified
Auxiliary flare	Oxides of Nitrogen	No limit set	Record of operating hours.
Pressure relief valves	Biogas	No limit set	Weekly visual or remote monitoring to ensure valves are correctly seated.

# 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 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of 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.
- 3.3.2 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.

#### 3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of 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.
- 3.4.2 The operator shall:
  - (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to 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.

#### 3.5 Pests

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

# 3.6 Monitoring

3.6.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake monitoring for the parameters, at the locations and at not less than the frequencies specified in table 3.1 3.6.2 The operator shall maintain records of all monitoring required by these standard rules 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.

#### 4 Information

#### 4.1 Records

- 4.1.1 All records required to be made by these standard rules 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 these standard rules, 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 these standard rules to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 Within one 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.

#### 4.3 Notifications

- 4.3.1 Natural Resources Wales 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 Written confirmation of actual or potential pollution incidents and breaches of emissions shall be submitted within 24 hours.
- 4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters except where such disclosure is prohibited by Stock Exchange rules:

- a) Where the operator is a registered company:
- any change in the operator's trading name, registered name or registered office address; and
- any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- b) Where the operator is a corporate body other than a registered company:
- any change in the operator's name or address; and
- any steps taken with a view to the dissolution of the operator.
- c) In any other case:
- the death of any of the named operators (where the operator consists of more than one named individual);
- any change in the operator's name(s) or address(es); and
- 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 them being in a partnership,
  dissolving the partnership.

### 4.4 Interpretation

- 4.4.1 In these standard rules the expressions listed below shall have the meaning given in that schedule.
- 4.4.2 In these standard rules 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.

"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. This does include, blood, feathers, uncooked butchers waste and any other animal waste that is not catering waste or former foodstuffs. This does not include faecal matter from animals (e.g. chicken litter or farmyard manure).

"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.

"digestate" means material resulting from an anaerobic digestion process

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from emission points specified in these standard rules or from other localised or diffuse sources, which are not controlled by an emission limit.

"emissions to land" include emissions to groundwater.

"European Site" means Special Area of Conservation or candidate Special Area of Conservation or Special Protection Area or proposed Special Protection Area in England and Wales, within the meaning of Council Directives 79/409/EEC on the conservation of wild birds and 92/43/EEC on the conservation of natural habitats and of wild flora and fauna and the Conservation of Habitats and Species Regulations 2010 . Internationally designated Ramsar sites are dealt with in the same way as European sites as a matter of government policy and for the purpose of these rules will be considered as a European Site.

"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.

"groundwater source protection zone" has the meaning given in the document titled "Groundwater protection: Principles and practice" published by Natural Resources Wales in 2012.

"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).

maturation" means optional period of treatment or storage of separated fibre digestate under predominantly aerobic conditions

"nearest sensitive receptor" means the nearest place to the permitted activities where people are likely to be for prolonged periods. This term would therefore apply to dwellings (including any associated gardens) and to many types of workplaces. We would not normally regard a place where people are likely to be present for less than 6 hours at one time as being a sensitive receptor. The term does not apply to those controlling the permitted facility, their staff when they are at work or to visitors to the facility, as their health is covered by Health and Safety at Work legislation, but would apply to dwellings occupied by the family of those controlling the anaerobic digestion facility.

pests" means Birds, Vermin and Insects.

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

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities and other legitimate uses of the environment.
- "quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"R" means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

"sanitisation: means the actively managed and intensive stage of composting, lasting for at least 5 days, characterised by high oxygen demand and temperatures of over 55°C, during which biological processes, together with conditions in the composting mass, eradicate human and animal pathogens or reduce them to acceptably low levels.

"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.

"SSSI" means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

"waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, and in relation to hazardous waste, includes the asterisk.

"year" means calendar year commencing on 1st January.

#### End of standard rules