Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Dwr Cymru Cyfyngedig

Eign Sludge Treatment Centre
Eign Wastewater Treatment Works
Outfall Works Road
Hereford
Heredfordshire
HR1 1RY

Variation application number

EPR/UP3735GH/V003

Permit number

EPR/UP3735GH

Eign Sludge Treatment Centre
Permit number EPR/UP3735GH

Introductory note

This introductory note does not form a part of the permit

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. The schedule of waste management activities includes the recovery of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment, but excludes activities covered by the Urban Waste Water Treatment Regulations (UWWTR). However, UK environmental regulators concluded that the biological treatment of waste sewage sludge is not an activity covered by the UWWTR and is therefore within the scope of the IED. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018. BAT applies to new waste sewage sludge treatment not covered by the UWWTR. The operations at Eign Sludge Treatment Centre are existing but will be brought into environmental regulation for the first time and are required to operate using BAT.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

Changes introduced by this variation

The following notice gives notice of the variation to a waste permit of environmental permit EPR/UP3735GH, previously issued as a Section 1.1 A(1) (b) (iii): (Unless carried on as part of a Part A(2) or Part B activity, burning any fuel manufactured from, or comprising, any other waste, in an appliance with a rated thermal input of 3 or more megawatts, but less than 50 megawatts) permit for the combustion of biogas in two combined heat and power (CHP) engines and two dual fuelled boilers (fuelled on biogas and gas oil). Both the CHPs and boilers are to be added to the permit as directly associated activities (DAAs) to the Section 5.4 Part A (1)(b)(i) scheduled activity. This variation also includes an increase to the site boundary to accommodate the assets associated with the sludge Anearobic Digestion (AD) operation.

Brief description of the process

Eign Sludge Treatment Centre (STC) is located approximately 1km southeast of Hereford town centre. The River Wye is located along the eastern and southern edge of the site. The site is located within the curtilage of the wider Waste Water Treatment Works (WwTW) operated under the UWWTR. The WwTW do not form part of this permit.

A Special Area of Conservation (SAC) and a Site of Specific Scientific Interest (SSSI) are located 44m from the permitted boundary along the River Wye. Two Local Nature Reserves (LNRs) and several Local Wildlife Sites (LWSs) are located within 2km.

Tankered sludge imported from other waste water treatment sites is received at the dedicated raw sludge sumps before transfer via a course screen intone of two screened sludge tanks. Both the raw sludge sumps and the screened sludge tanks are served by an air abatement system (OCU– emission point A9). Indigenous sludge from the adjacent WwTW is introduced into the screened sludge tanks. Sludge transferred via pipline from Rotherwas WwTW is introduced into one of the two screened sludge tanks after undergoing strain pressing through one of three huber strain presses where it is mixed with indigenous

sludge and imported sludges. From here the sludges are transferred to the thickener building where they undergo thickening in either a belt thickener or drum thickener before transfer into the thickened sludge tank. The thickener building is where the polymer dosing plant is located, which adds diluted polymer to aid the thickening process. The thickener building is served by the air abatement system (OCU – emission point A9). Filtrate from the thickening process is piped to a centrate collection sump and centrate diversion chamber where it is mixed with the centrate from the dewatering process and then transferred to a balance tank before treatment within the sequence batch reactor (SBR). After treatment in the SBR, liquors are returned to the wider WwTW at emission point S1 and monitored/sampled via point M1.

From the thickened sludge tank, sludges are introduced into one of two primary digesters operating on a continual basis with a hydraulic retention time of approximately 20 days. Heat within the primary digesters is maintained with the utilisation of three spiral heat exchangers which are fed with hot water via four feed pumps (two per digester) which are heated by the CHPs and boilers. The treatment of sludge in a biological AD process is a Section 5.4 Part A (1)(b)(i) scheduled activity of the Environmental Permitting (England and Wales) Regulations 2016 (EPR).

After the sludge has undergone AD in the primary digesters it is transferred into the centrifuge feed tank where it is allowed to cool and is mixed before onwards transfer into the centrifuge building. The centrifuge building consists of two centrifuges. Diluted polymer is added to the centrifuge feed tank automatically by the dosing plant located in the thickener building. Centrate from the centifugation process is piped to a centrate collection sump and centrate diversion chamber where it is mixed with the filtrate from the thickening process and then transferred to a balance tank before treatment within the SBR. After treatment in the SBR, liquors are returned to the wider WwTW at emission point S1 and monitored/sampled via point M1. The centrifuge building served by the air abatement system (OCU – emission point A9).

The resultant dewatered cake is pumped into the cake silo (or cake clamp in emergency situations) before transport off-site to an advanced anaerobic treatment site for further treatment before land spreading in accordance with the Sludge Use in Agriculture Regulations (SUiAR) (1989). The cake silo is served by the air abatement system (OCU – emission point A9).

Biogas produced as part of the AD process is captured and piped into the works gas bag for storage before combustion in either one of two 1.725MWth combined heat and power (CHP) engines or the one of two 0.57MWth dual fuelled boilers (biogas and gas oil). The gas bag and the gas system are kept under constant pressure with the use of air blowers within the outer membrane of the gas bag. The biogas is also pressurised using using six gas compressors. The biogas pipeline is fitted with condensate pots that capture entrained moisture from the generated biogas and allow it to be directed to the wider waste water treatment works via the centrate drainage line were it is mixed with centrate and treated in the SBR.

The site also operates two emergency flares which can be used in the event of an emergency.

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/UP3735GH/A001	Duly made 12/02/2009	Application for a section 1.1 A(1) (b) (iii) permit for the combustion of biogas.
Permit determined EPR/UP3735GH	11/08/2009	Original permit issued to Dwr Cymru Cyfyngedig.
Agency variation determined EPR/UP3735GH/V002	27/03/2013	Agency variation to implement the changes introduced by IED.
Application EPR/UP3735GH/V003	Duly made 26/04/2024	Application for an anaerobic digestion facility with combustion of biogas at a waste sewage sludge treatment site.

Status log of the permit		
Description	**Date**	**Comments**
Additional Information provided in response to a Schedule 5 notice	22/07/2024	Response to Schedule 5 notice requesting information in relation to BAT, odour management plan (OMP), secondary containment and air quality.
Additional Information provided in response to a Schedule 5 notice	11/10/2024	Response to Schedule 5 notice requesting information in relation to BAT, odour management plan (OMP), secondary containment and air quality.
Permit determined	13/02/2025	Permit issued to Dwr Cymru Cyfyngedig.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency hereby authorises, under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/UP3735GH

Issued to

Dwr Cymru Cyfyngedig ("the operator"),

whose registered office is

Dwr Cymru Welsh Water Linea
Fortran Road
St. Mellons
Cardiff
Wales
CF3 0LT

company registration number 02366777

to operate an installation at

Eign Sludge Treatment Centre
Eign Wastewater Treatment Works
Outfall Works Road
Hereford
Heredfordshire
HR1 1RY

to the extent set out in the schedules.

The notice shall take effect from 13/02/2025

Name	Date
Rebecca Warren	**13/02/2025**

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/UP3735GH

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Dwr Cymru Cyfyngedig (“the operator”),

whose registered office is

Dwr Cymru Welsh Water Linea
Fortran Road
St. Mellons
Cardiff
Wales
CF3 0LT

company registration number 02366777

to operate an installation at

Eign Sludge Treatment Centre
Eign Wastewater Treatment Works
Outfall Works Road
Hereford
Heredfordshire
HR1 1RY

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

Name	Date
Rebecca Warren	**13/02/2025**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

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

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

1.2 Energy efficiency

1.2.1 The operator shall:

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

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

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

1.3 Efficient use of raw materials

1.3.1 The operator shall:

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

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

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

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

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

1.4.1 The operator shall take appropriate measures to ensure that:

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

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

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

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

2 Operations

2.1 Permitted activities

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

2.1.2 The activities shall be undertaken in accordance with best available techniques.

2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer's recommendations.

2.1.4 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

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

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

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

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

2.3.4 Waste shall only be accepted if:

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

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

(c) the facility has sufficient free capacity to store and treat the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.3.7 Waste pre-acceptance and acceptance procedures shall be undertaken in accordance with best available techniques.

2.3.8 For the following activities referenced in schedule 1, table S1.1 (AR5):

(a) each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.

(b) the operator must keep periods of start-up and shut-down of the combustion plant as short as possible.

(c) there shall be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

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

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

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

3.2.3 Subject to condition 3.2.4, below, all liquids in containers, whose emission to water or land could cause pollution, shall be provided with adequate secondary containment, unless other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container have been agreed in writing with the Environment Agency.

3.2.4 Condition 3.2.3, above, shall apply unless the operator strictly complies in full with IC4 below.

3.2.5 Subject to condition 3.2.6, below, all liquid wastes in storage tanks and lagoons shall be fully enclosed, with emissions collected and directed to an appropriate abatement system, unless other appropriate measures to prevent or where that is not practicable, to minimise, emissions of waste gases from storage tanks and lagoons have been agreed in writing with the Environment Agency.

3.2.6 Condition 3.2.5, above, shall apply unless the operator strictly complies in full with IC5 below.

3.2.7 Subject to condition 3.2.8, below, the anaerobic treatment of all wastes shall take place within fully enclosed vessels. Combustible biogas or biomethane produced during biological treatment shall be utilised as a fuel or stored for utilisation off site, unless other appropriate measures to prevent or where that is not practicable, to minimise, emissions of biogas or biomethane from treatment/storage vessels have been agreed in writing with the Environment Agency. There shall be no uncontrolled emissions of biogas to the environment. This excludes the venting of biogas in an emergency using pressure release valves.

3.2.8 Condition 3.2.7, above, shall apply unless the operator strictly complies in full with IC5 below.

3.2.9 Subject to condition 3.2.10, below, the operator shall use buffer storage to store waste water and digestate to prevent waste water or digestate being discharged off site during the receiving waste water treatment works storm overflow operating, unless other appropriate measures to prevent or where that is not practicable, to minimise, emissions during waste water treatment works storm overflow operation, have been agreed in writing with the Environment Agency.

3.2.10 Condition 3.2.9, above, shall apply unless the operator strictly complies in full with IC7 below.

3.2.11 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds, including methane from diffuse sources.

3.3 Odour

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

3.4 Noise and vibration

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

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

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

3.5 Monitoring

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

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

(b) process monitoring specified in table S3.3 and S3.4;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3 and S3.4 unless otherwise agreed in writing by the Environment Agency.

3.5.5 For the following activities referenced in Schedule 1 Table S1.1 (AR5):

(a) For existing MCP Monitoring measurements shall be carried out before the relevant compliance date or within four months of the issue date of the permit whichever is the later.

(b) In the case of new medium combustion plant, the first monitoring measurements shall be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.

3.5.6 Monitoring of MCP shall not take place during periods of start up or shut down.

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) only use approved products for pest control;

(b) treat pest infestations promptly;

(c) reject pest-infected incoming waste;

(d) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

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

3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.7.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;

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

3.7.3 The operator shall undertake a DSEAR assessment and maintain an accident management plan.

4 Information

4.1 Records

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

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

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

4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation of each MCP.

4.2 Reporting

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

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.6 The operator shall keep records of non-waste materials leaving the site, including the type of material, the batch number, the date of export off-site and the tonnage exported on that date. These records shall be maintained for at least 2 years.

4.2.7 The operator shall submit an annual report detailing the efficiency of removal of non-digestible materials from feedstock prior to processing and the level of contamination in the final recovered digestate.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Following the detection of an issue listed in condition 4.3.1, the operator shall review and revise the management system and implement any changes as necessary to minimise the risk of re-occurrence of the issue.

4.3.4 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.5 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.6 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.7 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.3.8 The operator shall notify the Environment Agency as soon as is practicable, in writing of any change of medium combustion plant.

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**
AR1	S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment	R3: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste through to digestion and recovery of by-products (waste treated by anaerobic digestion). Anaerobic digestion of waste in two tanks followed by burning of biogas produced from the process. Anaerobic digestion shall be limited to 169 tonnes per day. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR2	S5.4 A(1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment	D8: Biological treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12	From the receipt of waste waters from thickening processes (filtrate), dewatering processes (centrate), OCU wastewater and bigas condensate through to biological treatment via a liquor treatment plant (Sequential Batch Reactor - SBR) which involves nitrification to reduce ammonia content before discharge of waste waters to the waste water treatment works. Liquor treatment plant consisting of two SBR tanks and a SBR balance tank.
Directly Associated Activity			
AR3	Storage of waste pending recovery or disposal	R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1 or AR2. From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site. Storage of residual wastes from pre-treatment to despatch off-site for recovery. Storage of waste in enclosed equipment and tanks or an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table S2.2.

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**
AR4	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	Undertaken in relation to Activity AR1. From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery. Dilution of incoming wastes using final waste waters from the wastewater treatment works to aid pre-treatment and digestion only. Pre-treatment of waste in enclosed equipment and tanks or an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system, including shredding, sorting, screening, compaction, baling, mixing and maceration. Post-treatment of digestate in enclosed equipment and tanks or an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system, including separation, screening to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying for use as a fertiliser or soil conditioner (drying for the purpose of use as a fuel is not permitted). Gas cleaning by biological or physical (carbon filtration) or chemical scrubbing. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR5	Steam and electrical power supply	R1: Use principally as a fuel to generate energy	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases. Combustion of biogas in two combined heat and power (CHP) engines with an aggregated thermal input of 3.45MWth. Combustion of biogas and diesel in two auxiliary boilers with an aggregated thermal input of 1.14 MWth.

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**
			Operation of two standby emergency generators fueled on diesel with an aggregated thermal input of 4.36MWth. Operation of the emergency generators shall be limited to less than 50 hours per year for testing purposes only.
AR6	Emergency flare operation	D10: Incineration on land	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. There shall be no venting or flaring of gas for disposal. Use of two auxiliary flares required only during periods of breakdown or maintenance of the CHP engines and/or auxiliary boilers.
AR7	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, propane, ferric chloride, activated carbon, diesel.	From the receipt of raw materials to despatch for use within the facility.
AR8	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. Storage of biogas produced from on-site anaerobic digestion of permitted waste in one stand-alone biogas holder or roof space of digesters. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility. Emissions of unburnt biogas shall be minimised.
AR9	Digestate storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. From the receipt of processed digestate produced from the on-site anaerobic digestion process to despatch for use off-site.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
			Storage of processed liquid digestate in one storage tank (centrifuge feed tank). Storage of processed solid digestate in an enclosed vessel with odour abatement (cake silo) and an uncovered vessel (cake clamp) on an impermeable surface with sealed drainage system.
AR10	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water	From the collection of uncontaminated roof and site surface water from non-operational areas only to re-use within the facility or discharge off-site.
AR11	Air abatement	Collection and treatment of air from the buildings or plant using abatement system – [biofilter and carbon filter] prior to release to atmosphere.	From the collection of air from site processes to treatment and release of treated air to atmosphere. Collection and treatment of air from the buildings, tanks or plant using abatement system – [OCU (A9) 1x biofilter and carbon filter]

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application EPR/UP3735GH	Part B, Section 5 of the Application Form and Chapter 2 of the application supporting document.	01/05/2009
Response to Schedule 5 Notice dated 12/03/2009	Response to question 2 detailing process control.	01/05/2009
Application EPR/UP3735GH/V003	Environmental risk assessment (Dec 22 – version 2), Site condition report (Dec 22 – version A) Best available techniques as described in the BAT Reference Document for Waste Treatment (the BREF) and BAT conclusions.	07/12/2022
Additonal information	Eign EWC codes (Jan 24 – version 1), General arrangement for zone 1 (Dec 23 – version 1), Accident management plan (Dec 23 – version B).	12/01/2024
Additonal information	Waste acceptance and pre-acceptance procedure (Apr 24 – version B) and Flood risk assessment (apr 24 – version A).	26/04/2024
Response to Schedule 5 Notice dated 24/06/2024	Sections 3, 5, 6 and 7 of the Main supporting document (MSD – July 24 – version 3), Annual throughput document, BAT assessment document (July 24 – Version 1), Leak detection and repair plan summary (July 24 - version 1), Residue management plan (July 24 – version 2), General arrangment for Zone 2 (Nov 23 – version 1), Ecological Impact Assessment (June 24 – version1), Eign PFD (April 24 – version 7), Eign Sampling Proposal (July 24 – version 1),	22/07/2024

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
	Response to Question 3 regarding tanker offloading, Question 4 regarding PRVs, Question 18 regarding siloxannes, Question 19 regarding storm overflows and Question 21 regarding CHP commission.	
Response to Schedule 5 Notice dated 30/08/2024	Layout emission drainage plan (Oct 24 – version 2), Odour management plan (Oct 24 – version 2), Eign air quality assessment (Oct 24 – version C), Eign ABDA assessment (Oct 24 - version 3), Process Flow Diagram (Oct 24) and Response to Question 1 regarding clean out and waste segregation when using the emergency bypass operation to undertake centrifugation, and question 8 regarding HRT and cake clamp usage.	11/10/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
Previous improvement conditions		
IP1	The operator shall propose a monitoring programme to establish emission levels of total VOCs and Non-Methane VOCs from emission points A1 and A2 and submit the proposal in writing to the Agency for agreement. On receiving agreement from the Agency the operator shall carry out the monitoring to the programme agreed and submit a written report containing the monitoring results to the Environment Agency.	Completed
IP2	The Operator shall carry out an assessment of the environmental impact of total VOC and non-methane VOCs from emission points A1 and A2 , using the results obtained from the monitoring required by IP1. A written report detailing the assessment methodology used and findings of the environmental impact assessment shall be submitted to the Agency.	Completed
IP3	The operator shall submit a written Energy Efficiency Plan which meets the requirements of Section 2.7 of the Combustion Sector Guidance Note EPR 1.1 (version 2.03, dated 27/07/05) to the Agency for approval.	Completed
Improvement condition for secondary containment design		
IC4	The operator shall submit a written 'secondary containment implementation plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the finalised designs and an implementation schedule for the identified secondary containment systems proposed in the documents 'Eign ABDA assessment (dated - Oct 24), General arrangement for zone 1 (dated - Dec 23) and General arrangement for Zone 2 (dated - Nov 23)'. The finalised design(s) and specifications shall be produced by appropriate competent individuals (qualified civil or structural engineer), in accordance with the risk assessment methodology detailed within CIRIA C736 (2014) guidance. The plan shall include but not be limited to the following components: • An updated BAT assessment with specific regard to BAT 19 of the Waste Treatment BREF to demonstrate how the finalised designs based on the proposed secondary containment in the	31/03/2025. Implementation of all required and approved containment improvements must be completed by 31/03/2025.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	documents 'Eign ABDA assessment (dated - Oct 24), General arrangement for zone 1 (dated - Dec 23) and General arrangment for Zone 2 (dated - Nov 23)' meet BAT 19. • An assessment of the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure. • Finalised designs and specifications of the proposed secondary containment proposal completed by appropriate competent individuals. • A program of works with timescales for the commissioning of the secondary containment systems to comply with CIRIA C736 (2014) guidance, or equivalent. • An updated site and infrastructure plan. • A preventative maintenance and inspection regime. The plan shall be implemented in accordance with the Environment Agency's prior written approval.	
Improvement conditions for enclosure of tanks storing (or treating) digestate		
IC5	The operator shall submit a written 'post anaerobic digestion vessel cover' plan and obtain the Environment Agency's written approval to it. The plan shall contain the final designs and an implementation schedule for the installation of covers for vessels storing and/or treating digestate in tanks identified as the centrifuge feed tank. The plan shall also contain a detailed description of the proposed gas utilisation/abatement plant, gas storage infrastructure for the biogas produced during anaerobic digestion, pressure relief valves and gas pipework. The plan shall include but not be limited to the following components: • Evidence that the pollutants of the waste gas (including methane) produced in the centrifuge feed tank will be controlled and/or abated either by the proposed gas utilisation plant or proposed abatement system. • Evidence that the vessel covers, gas utilisation/ abatement plant and ancillary equipment have been designed by appropriately qualified engineers. • Evidence that the vessel covers, and gas utilisation/abatement plant will be designed and installed in accordance with guidance, *Biological waste treatment: appropriate measures for permitted facilities*. • An updated Hazard and Operability Study (HAZOP) and DSEAR risk assessment. • An assessment of gas storage capacity and gas utilisation/abatement capacity including proposals for additional gas utilisation/ abatement plant. • A program of works with timescales for the commissioning of the vessel cover(s), gas utilisation/ abatement infrastructure and ancillary equipment.	31/03/2025 Implementation of all required vessel cover improvements must be completed by 31/03/2025

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The plan shall be implemented in accordance with the Environment Agency's prior written approval. (Note that approval of reports under this improvement condition does not preclude the need for permit variation applications to implement the improvements identified in the report. Any variation may include the insertion of necessary emission limit values).	
Improvement conditions for primary containment tanks		
IC6	The operator shall submit a written 'primary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by an appropriately qualified engineer and shall assess the extent, design specification and condition of primary containment systems (including associated pipework) where polluting liquids and solids are being stored, treated, and/or handled. The plan shall include, but not be limited to: • An assessment of the physical condition of all primary containment systems (storage and treatment vessels and associated pipework) using a Written Scheme of Examination and their suitability for providing primary containment when subjected to dynamic and static loads. • A program of works with timescales for the implementation of individual improvement measures necessary to demonstrate that the primary containment is fit for purpose or alternative appropriate measures to ensure all polluting materials will be contained on site. • A preventative maintenance and inspection regime. The plan shall be implemented in accordance with the Environment Agency's written approval.	Within 12 months of permit issue or such other date as agreed in writing with the Environment Agency.
Improvement conditions for operational storage buffer capacity		
IC7	The operator shall submit a written "waste water and digestate buffer storage plan" and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review of the current storage of waste water and digestate produced from site operations. The review shall propose and describe site contingency arrangements to provide appropriate storage capacity or other appropriate measures to prevent or minimise emissions of waste water or digestate being discharged off site during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions. The storage plan shall include but not be limited to: • Proposals for additional storage capacity with secondary containment within the site boundary for wastewater and/or other	31/03/2025 Implementation of all required containment improvements must be completed by 31/03/2025

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	digestate during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions. • Procedures to cease discharges during these conditions. • Calculation of a reasonable contingency capacity of waste water and/or other digestate during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions. • A description and design specification of the buffer storage infrastructure and secondary containment measures. The design shall be completed by an appropriately qualified engineer and secondary containment shall be designed in line with CIRIA C736. • A program of works with timescales for the implementation and construction of the buffer storage. • A preventative maintenance and inspection regime. The plan shall be implemented in accordance with the Environment Agency's prior written approval.	
Improvement conditions for establishing an inventory of liquid waste water discharged from anaerobic digestion and associated activities (AR1 – AR11)		
IC8a	The operator shall submit a sampling programme in relation to waste water streams and shall obtain the Environment Agency's written approval to it. The sampling programme shall be designed to fully characterise the waste waters discharged to Eign wastewater treatment works (WwTW) from emission points S1, S2, S3 and S4, sampled at monitoring points M1, M2, M3 and M4 (in table S3.2 of this permit). The programme shall include but not be limited to a methodology for a minimum of one 24-hour flow proportional sample a month, for each emission point, for a period of 12 months. The programme shall detail the sampling methods/standards used. Sampling methods shall be in accordance with BAT conclusion 20 of the Waste Treatment BREF. The programme shall include the National Grid Reference (NGR) of the sampling point(s) location(s). The programme shall establish the characteristics of the liquid waste water streams and shall include as a minimum for each emission point: • Average values and variability of flow, pH, temperature and conductivity. • Average concentration and load values of all relevant substances and their variability. • Data on bioeliminability. The programme shall sample for all relevant substances and must include:	Within 2 months of issue of this permit or such other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• Hydrocarbon oil index (HOI) (mg/l) • Free cyanide (CN^-) (mg/l) • Adsorbable organically bound halogens (AOX) (mg/l) • Metals and metalloids; arsenic (expressed as As), cadmium (expressed as Cd), chromium (expressed as Cr), hexavalent chromium (expressed as Cr(VI)), copper (expressed as Cu), lead (expressed as Pb), nickel (expressed as Ni), mercury (expressed as Hg), zinc (expressed as Zn) (µg/l) The operator shall submit the collected monitoring data in writing to the Environment Agency according to agreed reporting periods. The sampling programme shall be produced in accordance with Environment Agency guidance: • Specific substances and priority hazardous substances – *Surface water pollution risk for your environmental permit* Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk). • *Monitoring discharges to water: guidance on selecting a monitoring approach* Monitoring discharges to water: guidance on selecting a monitoring approach - GOV.UK (www.gov.uk) The monitoring programme shall be carried out and the monitoring data submitted in accordance with the Environment Agency's written approval.	
Improvement conditions for indirect discharges to water discharged from anaerobic digestion and associated activities (AR1 – AR11)		
IC8b	The operator shall submit a report for approval by the Environment Agency, following completion of the sampling programme approved under IC8a. The report shall include but not be limited to; a summary of the sample results, a completed H1 risk assessment(s) and modelling outputs where appropriate. The operator shall provide conclusions on whether the waste waters discharged from emission points S1, S2, S3 and S4 sampled at monitoring points M1, M2, M3 and M4 will have any adverse impact on the receiving waters once discharged from Eign wastewater treatment works (WwTW). An assessment shall be made against the parameters specified in the relevant environmental standards as specified within Environment Agency guidance as follows: • Specific substances and priority hazardous substances – *Surface water pollution risk for your environmental permit* Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk). • Sanitary substances – *H1 annex D2: assessment of sanitary and other pollutants in surface water discharges* 1076_14 H1 Annex	Within 15 months of the Environment Agency's written approval of the sampling programme submitted under IC8a or such other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	D2 - Assessment of sanitary and other pollutants within Surface Water Discharges (publishing.service.gov.uk) The report shall include any proposals and/or additional measures required to prevent or minimise any significant emissions from the installation along with timescales for implementation.	
IC8c	The operator shall implement any improvements identified within the report approved under IC8b in accordance with the Environment Agency's written approval and provide written confirmation to the Environment Agency that the improvements have been completed. (Note, approval of reports under this improvement condition does not preclude the need for permit variation application(s) to operate the improvements identified in the report and/or include any necessary emission limit values).	Within 6 months of the report in relation to IC8b being approved by the Environment Agency or such other date as agreed in writing with the Environment Agency
Improvement condition to address methane slip emissions from gas engines burning biogas		
IC9	The operator shall submit a written plan for approval by the Environment Agency which establishes the methane emissions in the exhaust gas from engines burning biogas and or biomethane and compare these to the manufacturer's specification and benchmark levels. The plan shall develop proposals to assess the potential for methane slip and take corrective actions where emissions of methane above the manufacturer's specification are identified. The operator shall establish methane emissions in the exhaust gas and methane slip using the following standards: • EN ISO 25139 • EN ISO 25140	Within 6 months of issue of this permit or as agreed in writing with the Environment Agency
Improvement condition for review of effectiveness of abatement plant		
IC10	The operator shall carry out a review of the abatement plant (OCU – emission point A9) on site, to determine whether the measures have been effective and adequate to prevent, or where this is not possible to minimise, emissions released to air (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC). The operator shall submit a written report to the Environment Agency following this review for assessment and approval. The report shall include but not be limited to the following aspects:	Within 6 months of permit issue or such other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• Full investigation and characterisation of the waste gas streams. • Evidence that the emission of pollutants in the waste gas stream is being prevented or where this is not possible minimised by the abatement plant. • Abatement stack monitoring results (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC). • Abatement process monitoring results (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC). • Details of air quality quantitative impact assessment including modelling and a proposal for site-specific "action levels" (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC). • Odour monitoring results at the site boundary. • Records of odour complaints and odour related incidents. • Recommendations for improvement including the replacement or upgrading of the abatement plant. • Timescales for implementation of improvements to the abatement plant. The operator shall implement any improvements in line with the timescales as approved by the Environment Agency. (Note that approval of reports under this improvement condition does not preclude the need for permit variation applications to implement the improvements identified in the report. Any variation may include the insertion of necessary emission limit values).	
Improvement condition for monitoring digestate stability		
IC11	The operator shall submit a written report, with supporting evidence, on the stability of whole digestate, (i.e. prior to dewatering), and obtain the Environment Agency's written approval to it. The report shall assess whether biogas emissions from post digestion storage or treatment of digestate is likely to have been minimised. The report shall include but not be limited to: • An assessment of residual biogas potential in accordance with the OFW004-005 [N6] methodology specified by *BSI PAS 110: Producing Quality Anaerobic Digestate* or an equivalent methodology for assessing residual biogas potential of the digestate.	Within 6 months of permit issue or such other date as agreed in writing with the Environment Agency

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
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Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	**Annual throughput shall not exceed 135,612 tonnes**
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Biodegradable wastes that is significantly contaminated with non-compostable or digestible contaminants, in particular plastic and litter shall be no more than 5% w/w and shall be as low as reasonably practicable by 31 December 2025. • Wastes containing wood-preserving agents or other biocides and post-consumer wood. • Wastes containing persistent organic pollutants. • Wastes containing Japanese Knotweed or other invasive plant species listed in the Invasive Species (Amendment etc.) (EU Exit) Regulations 2019. • Manures, slurries and spoiled bedding and straw from farms where animals have notifiable diseases as stipulated in the Animal By-Products (Enforcement) (England) Regulations 2013. • Pest infested waste.
Waste code	**Description**
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 (sewage sludge only)
19 06	**wastes from anaerobic treatment of waste**
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (digested sewage sludge only)
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 05	sludges from the treatment of urban waste water
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (sewage sludge only) subjected to mechanical treatment only from a process that treats waste which are listed in this table, Table S2.2

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**
Existing medium combustion plant which are engines fuelled on biogas (1 MW to 5 MW)						
Point A1 on site plan in Schedule 7 SO 52081 38874	CHP engine 1 stack – 1.725 MWth [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m^3 [note 2]			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Sulphur dioxide	162 mg/m^3 [note 3]			
		Carbon monoxide	1400 mg/m^3			BS EN 15058
		Total VOCs	No limit set	--	--	BS EN 12619
Point A2 on site plan in Schedule 7 SO 52086 38867	CHP engine 2 stack 1.725 MWth [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m^3 [note 2]			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Sulphur dioxide	162 mg/m^3 [note 3]			
		Carbon monoxide	1400 mg/m3			BS EN 15058
		Total VOCs	No limit set	--	--	BS EN 12619
Existing combustion plant (less than 1 MW)						
Point A3 on site plan in Schedule 7 SO 52060 38840	Boiler 1 stack 0.57 MWth Burning biogas	--	--	--	--	--
	Boiler 1 stack 0.57 MWth Burning gas oil	--	--	--	--	--
	Boiler 2 stack 0.57 MWth	--	--	--	--	--

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**
Point A4 on site plan in Schedule 7 SO 52062 38837	Burning biogas					
	Boiler 2 stack 0.57 MWth Burning gas oil	--	--	--	--	--
Existing medium combustion plant other than engines and gas turbines fuelled on gas oil (1 MW to 5 MW) operating less than 50 hours per annum						
Point A7 on site plan in Schedule 7 SO 52065 38851	Emergency Generator 1 2.18 MWth Burning gas oil [note 4]	--	--	--	--	--
Point A8 on site plan in Schedule 7 SO 52068 38853	Emergency Generator 2 2.18 MWth Burning gas oil [note 4]	--	--	--	--	--
Point A5 on site plan in Schedule 7 SO 52112 38847	Emergency flare stack 1 [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Average over sample period	[note 5]	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619
Point A6 on site plan in Schedule 7 SO 52115 38844	Emergency flare stack 2 [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Average over sample period	[note 5]	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619
Point A9 on site plan in Schedule 7 SO 52088 38809	Channelled emissions from the biofilter and carbon filter [note 7]	Hydrogen sulphide	No limit set	Average over sample period	Once every 6 months	CEN TS 13649 for sampling NIOSH 6013 for analysis
		Ammonia	20 mg/m^3	Average over sample period	Once every 6 months	EN ISO 21877
		Odour concentration	No limit set	--	Once every 6 months	BS EN 13725

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**
Point A9 on site plan in Schedule 7 SO 52088 38809	Channelled emissions to air from treatment of water-based liquid waste	Hydrogen chloride (HCl)	5 mg/m^3 [note 6]	Average over sample period	Once every 6 months	EN 1911
		TVOC	20 mg/m^3 [note 6]	Average over sample period	Once every 6 months	EN 12619
Pressure relief valves [Points A10 – A11 on site plan in schedule 7] SO 52098 38791 SO 52110 38800	Digesters	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	--
Pressure relief valves [Point A12 on site plan in schedule 7] SO 52101 38821	Biogas holder	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	--
Vents from tanks	Oil/Fuel Storage tanks	No parameter set	No limit set	--	--	--

Note 1 – These emission limits are based on normal operating conditions and load - temperature 0°C (273 K); pressure 101.3 kPa and oxygen 5% (for gas engines burning biogas) and oxygen 3% (for emergency flares and medium combustion plants other than engines and gas turbines burning biogas such as boilers).

Note 2 – This emission limit applies until 31 December 2029, unless the gas engine is replaced.

Note 3 – This emission limit applies from 1 January 2030, unless otherwise advised by the Environment Agency.

Note 4 – Operation of the emergency generators shall be limited to less than 50 hours per year for testing purposes only.

Note 5 – Monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours). Record of operating hours to be submitted annually to the Environment Agency.

Note 6 – Monitoring and limits only apply where the substance concerned is identified as relevant in the waste gas inventory IC10.

Note 7 – The monitoring of NH_3 and H_2S can be used as an alternative to the monitoring of the odour concentration subject to the outcome of IC10.

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter [Note 1]**	**Limit (incl. unit) [Note 1]**	**Reference Period**	**Monitoring frequency [Note 2]**	**Monitoring standard or method**
M1 on site plan in schedule 7 emission to River Wye [via Eign WwTW] SO 52079 38853	Centrifuge centrate, thickener liquor and biogas condensate	Oil and grease	No visible oil or grease	--	Weekly	Visual assessment
		Benzene, toluene, ethylbenzene, xylene (BTEX)	--	Spot sample or flow-proportional composite sample	Once every month	EN ISO 15680
		Hydrocarbon oil index (HOI)	10 mg/l		Once every day	EN ISO 9377-2
		Free cyanide (CN^-)	0.1 mg/l			EN ISO 14403-1 or EN ISO 14403-2
		Adsorbable organically bound halogens (AOX)	1 mg/l			EN ISO 9562
		Arsenic (As)	0.1 mg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Cadmium (Cd)	0.1 mg/l			
		Chromium (Cr)	0.3 mg/l			
		Copper (Cu)	0.5 mg/l			
		Lead (Pb)	0.3 mg/l			
		Nickel (Ni)	1 mg/l			
		Zinc (Zn)	2 mg/l			
		Mercury (Hg)	10 µg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 17852 or EN ISO 12846
		Manganese (Mn)	--			EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Hexavalent chromium (Cr(VI))	0.1 mg/l			EN ISO 10304-3 or EN ISO 23913

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter [Note 1]**	**Limit (incl. unit) [Note 1]**	**Reference Period**	**Monitoring frequency [Note 2]**	**Monitoring standard or method**
		PFOA and PFOS	--		Once every six months	--
M2 on site plan in schedule 7 emission to River Wye [via Eign WwTW] SO 52041 38858	Storm run off	Oil and grease	No visible oil or grease	--	Weekly	Visual assessment
		Benzene, toluene, ethylbenzene, xylene (BTEX)	--	Spot sample or flow-proportional composite sample	Once every month	EN ISO 15680
		Hydrocarbon oil index (HOI)	10 mg/l		Once every day	EN ISO 9377-2
		Free cyanide (CN^-)	0.1 mg/l			EN ISO 14403-1 or EN ISO 14403-2
		Adsorbable organically bound halogens (AOX)	1 mg/l			EN ISO 9562
		Arsenic (As)	0.1 mg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Cadmium (Cd)	0.1 mg/l			
		Chromium (Cr)	0.3 mg/l			
		Copper (Cu)	0.5 mg/l			
		Lead (Pb)	0.3 mg/l			
		Nickel (Ni)	1 mg/l			
		Zinc (Zn)	2 mg/l			
		Mercury (Hg)	10 µg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 17852 or EN ISO 12846
		Manganese (Mn)	--			EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Hexavalent chromium (Cr(VI))	0.1 mg/l			EN ISO 10304-3 or EN ISO 23913

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter [Note 1]**	**Limit (incl. unit) [Note 1]**	**Reference Period**	**Monitoring frequency [Note 2]**	**Monitoring standard or method**
		PFOA and PFOS	--		Once every six months	--
M3 on site plan in schedule 7 emission to River Wye [via Eign WwTW] SO 52115 38755	SBR treated effluent	Oil and grease	No visible oil or grease	--	Weekly	Visual assessment
		Benzene, toluene, ethylbenzene, xylene (BTEX)	--	Spot sample or flow-proportional composite sample	Once every month	EN ISO 15680
		Hydrocarbon oil index (HOI)	10 mg/l		Once every day	EN ISO 9377-2
		Free cyanide (CN^-)	0.1 mg/l			EN ISO 14403-1 or EN ISO 14403-2
		Adsorbable organically bound halogens (AOX)	1 mg/l			EN ISO 9562
		Arsenic (As)	0.1 mg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Cadmium (Cd)	0.1 mg/l			
		Chromium (Cr)	0.3 mg/l			
		Copper (Cu)	0.5 mg/l			
		Lead (Pb)	0.3 mg/l			
		Nickel (Ni)	1 mg/l			
		Zinc (Zn)	2 mg/l			
		Mercury (Hg)	10 µg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 17852 or EN ISO 12846
		Manganese (Mn)	--			EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Hexavalent chromium (Cr(VI))	0.1 mg/l			EN ISO 10304-3 or EN ISO 23913

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter [Note 1]**	**Limit (incl. unit) [Note 1]**	**Reference Period**	**Monitoring frequency [Note 2]**	**Monitoring standard or method**
		PFOA and PFOS	--		Once every six months	--
M4 on site plan in schedule 7 emission to River Wye [via Eign WwTW] SO 52143 38726	Digester storm bund runoff	Oil and grease	No visible oil or grease	--	Weekly	Visual assessment
		Benzene, toluene, ethylbenzene, xylene (BTEX)	--	Spot sample or flow-proportional composite sample	Once every month	EN ISO 15680
		Hydrocarbon oil index (HOI)	10 mg/l		Once every day	EN ISO 9377-2
		Free cyanide (CN^-)	0.1 mg/l			EN ISO 14403-1 or EN ISO 14403-2
		Adsorbable organically bound halogens (AOX)	1 mg/l			EN ISO 9562
		Arsenic (As)	0.1 mg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Cadmium (Cd)	0.1 mg/l			
		Chromium (Cr)	0.3 mg/l			
		Copper (Cu)	0.5 mg/l			
		Lead (Pb)	0.3 mg/l			
		Nickel (Ni)	1 mg/l			
		Zinc (Zn)	2 mg/l			
		Mercury (Hg)	10 µg/l	Spot sample or flow-proportional composite sample	Once every day	EN ISO 17852 or EN ISO 12846
		Manganese (Mn)	--			EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Hexavalent chromium (Cr(VI))	0.1 mg/l			EN ISO 10304-3 or EN ISO 23913

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter [Note 1]**	**Limit (incl. unit) [Note 1]**	**Reference Period**	**Monitoring frequency [Note 2]**	**Monitoring standard or method**
		PFOA and PFOS	--		Once every six months	--
Note 1 – Monitoring and limits only apply where the substance concerned is identified as relevant in the waste water inventory as determined by improvement condition IC8a and IC8b. Note 2 – Monitoring frequency as specified unless the Environment Agency has agreed in writing other alternative appropriate monitoring frequencies.						

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**
Digester feed (digestion process)	pH	As described in site operating techniques	As described in site operating techniques	Process monitoring to be recorded using a SCADA system where relevant.
	Alkalinity			
	Temperature			
	Hydraulic loading rate			
	Organic loading rate			
	Volatile fatty acids concentration			
	Ammonia			
	Liquid /foam level			
Biogas in digester [& biogas storage holders]	Flow	Continuous	In accordance with EU weights and measures Regulations	Process monitoring to be recorded using a SCADA system where relevant. Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Methane	Continuous	None specified	
	CO_2	Continuous	None specified	
	O_2	Continuous	None specified	
	Hydrogen sulphide	Daily	None specified	
	Pressure	Continuous	None specified	
Digestate batch	Volatile fatty acids concentration	One sample at the end of each batch (hydraulic retention time) cycle.	As described in site operating techniques	--
	Ammonia			

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**
Digester(s) and storage tank(s)	Integrity checks	Weekly	Visual assessment	In accordance with design specification and tank integrity checks.
Digester(s)	Agitation /mixing	Continuous	Systems controls	Records maintained in daily operational records.
	Tank capacity and sediment assessment	Once every 5 years from date of commission	Non-destructive pressure testing integrity assessment every 5 years or as specified by manufacturers technical specification.	In accordance with design specification and tank integrity checks.
Waste reception building or area; Digester(s) and storage tank(s)	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane	Every 6 months or otherwise agreed in accordance with the LDAR programme	'Sniffing' and/or Optical Gas Imaging techniques in accordance with BS EN 15446 & BS EN 17628	Monitoring points as specified in a DSEAR risk assessment and LDAR programme. Limit as agreed with the Environment Agency as a percentage of the overall gas production.
CHP engine stack(s)	VOCs including methane	Annually	BS EN 12619	Total annual VOCs emissions from the CHP engine(s) to be calculated and submitted to the Environment Agency.
	Exhaust gas temperature		Traceable to National Standards	--

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**
	Exhaust gas pressure		Traceable to National Standards	--
	Exhaust gas water vapour content		BS EN 14790-1	Unless gas is dried before analysis of emissions.
	Exhaust gas oxygen		BS EN 14789	--
	Exhaust gas flow		BS EN 16911-1	--
Meteorological conditions	Wind speed, air temperature, wind direction	Continuous	Method as specified in management system	Conditions to be recorded in operational diary and records. Equipment shall be calibrated on a 4 monthly basis, in accordance with manufacturer's recommendations or as agreed in writing by the Environment Agency.
Emergency flares	Operating hours	Continuous	Recorded duration and frequency. Recording using a SCADA system or similar system	Date, time and duration of use of auxiliary flare shall be recorded.
	Quantity of gas sent to emergency flare			Quantity can be estimated from gas flow composition, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions.
Pressure relief valves and vacuum systems	Gas pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.
	Re-seating	Weekly inspection	Visual	Operator must ensure that valves are re-seated after release in accordance with the

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**
				manufacturer's design.
	Inspection, maintenance, calibration, repair and validation	Following foaming or overtopping or at 3 yearly intervals whichever is sooner	Written scheme of examination in accordance with condition 1.1.1	After a foaming event or sticking, build-up of debris, obstructions or damage, operator must ensure that pressure relief valve function remains within designed gas pressure in accordance with the manufacturer's design by suitably trained and qualified personnel.
	Inspection, calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event	Written scheme of examination in accordance with condition 1.1.1	Operator must ensure that valves are re-seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage. Operator must ensure that PRV function remains within designed operation gas pressure in accordance with the manufacturer's design by suitably trained/qualified personnel. Inspection, calibration and validation report. In accordance with industry Approved Code of Practice
Storage tanks	Volume	Daily	Visual or flow meter measurement	Records of volume must be maintained.

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Odour abatement plant				
Closed biofilters				
Biofilter (A9)	Gas temperature – inlet and outlet	Daily	Temperature probe / Traceable to national standards	Odour abatement plant shall be regularly checked and maintained to ensure appropriate temperature and moisture content. Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations. Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the Environment Agency.
	Biofilter media moisture	Daily	Moisture meter, Grab test, oven drying or recognised industry method	
	Thatching /compaction	Weekly	Back pressure	
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter	
	pH (biofilter drainage effluent)	Daily	pH metre or litmus paper	
	Efficiency assessment	Annual	Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal)	
	Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	CEN TS 13649 for sampling NIOSH 6013 for analysis	Action levels to be agreed on completion of IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Ammonia – inlet	Every 6 months or as agreed in writing by the	EN ISO 21877	Action levels to be agreed on completion of

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
		Environment Agency.		IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Odour concentration – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	BS EN 13725	Action levels to be agreed on completion of IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
Carbon filters				
Carbon filter (A9)	Carbon bed temperature – inlet and outlet	Continuous	Temperature probe	Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations. Carbon filter(s) to be replaced in accordance with manufacturer's recommendations. Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter	
	Moisture or humidity	Daily	Moisture meter	
	Back pressure	Weekly	Recognised industry method	
	Efficiency assessment	Annual	Emission removal efficiency (BS EN 13725 for odour removal)	

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
				Environment Agency.
	Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	CEN TS 13649 for sampling NIOSH 6013 for analysis	Action levels to be agreed on completion of IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Ammonia – inlet	Every 6 months or as agreed in writing by the Environment Agency.	EN ISO 21877	Action levels to be agreed on completion of IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Odour concentration – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	BS EN 13725	Action levels to be agreed on completion of IC10 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.

Table S3.5 Emissions to sewer, effluent treatment plant or other transfers off-site – Monitoring points			
Effluent(s) and discharge point(s)	**Monitoring type**	**Monitoring point NGR**	**Monitoring point reference**
S1 on site plan in schedule 7 emission to River Wye [Eign WwTW]	Effluent monitoring	SO 52079 38853	Point M1 [Discharge to WwTW] in Schedule 7
S2 on site plan in schedule 7 emission to River Wye [Eign WwTW]	Effluent monitoring	SO 52041 38858	Point M2 [Discharge to WwTW] in Schedule 7
S3 on site plan in schedule 7 emission to River Wye [Eign WwTW]	Effluent monitoring	SO 52115 38755	Point M3 [Discharge to WwTW] in Schedule 7
S4 on site plan in schedule 7 emission to River Wye [Eign WwTW]	Effluent monitoring	SO 52143 38726	Point M4 [Discharge to WwTW] in Schedule 7

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 from CHP engines and boilers Parameters as required by condition 3.5.1.	A1 and A2	Every 12 months	1 January
Emissions to air from odour abatement plant Parameters as required by condition 3.5.1.	A9	Every 6 months	1 January, 1 July
Emissions to air from abatement systems for waste gas treatment plant Reporting only applies where the substance concerned is identified as relevant in the waste gas inventory IC10 Parameters as required by condition 3.5.1.	A9	Every 6 months	1 January, 1 July
Emissions to sewer Parameters as required by condition 3.5.1	M1, M2, M3 and M4	Upon completion of IC8a and IC8b	Upon completion of IC8a and IC8b
Process monitoring – digester tank integrity Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 5 years from the date of commissioning or as per the manufacturer's recommendation, whichever is sooner	1 January
Process monitoring – under and over pressure relief systems Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months Yearly summary report of over-pressure and under-pressure events detailing mass balance release	1 January
Process monitoring – pressure relief systems - leak detection and repair (inspection, calibration and maintenance) Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 3 years	1 January
Process monitoring – leak detection and repair surveys Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months LDAR report to be submitted annually	1 January

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Process monitoring – use of emergency flare Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months	1 January
Non-compostable contamination removal efficiency Parameters as required by conditions 2.3.4 and 2.3.7	--	Every 12 months Yearly report of detailing contamination removal efficiency and progress with plastic reduction contamination	1 January
Total annual VOCs emissions from gas engines (calculated)	As specified in schedule 3 table S3.3	Every 12 months	1 January

Table S4.2 Annual production/treatment	
Parameter	**Units**
Electricity generated	MWh
Liquid digestate	m^3
Solid digestate	tonnes
Recovered outputs	tonnes or m^3

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	tonnes or m^3
Energy usage	Annually	MWh
Raw material usage	Annually	tonnes or m^3
Emergency flare operation	Annually	hours
Electricity exported	Annually	MWh
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%
Auxiliary boiler usage	Annually	hours

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	13/02/2025
Process monitoring	Form process 1 or other form as agreed in writing by the Environment Agency	13/02/2025
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	13/02/2025

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	13/02/2025
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	13/02/2025
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	13/02/2025
Waste returns	E-waste Return Form or other form as agreed in writing by the Environment Agency	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

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

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

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

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

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

“animal waste” means any waste consisting of animal matter that has not been processed into food for human consumption.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“appropriate abatement system” means the appropriate treatment technique for channelled emissions to air defined in 6.6.1 ‘Channelled emissions to air’ from the ‘Best Available Techniques (BAT) Reference Document for Waste Treatment’.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Best available techniques” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:

(a) ‘techniques’ includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;

(b) ‘available techniques’ means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;

(c) ‘best’ means most effective in achieving a high general level of protection of the environment as a whole.

“Biodegradable” means a material is capable of undergoing biological anaerobic or aerobic degradation leading to the production of CO_2, H_2O, methane, biomass, and mineral salts, depending on the environmental conditions of the process.

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

“BREF” means Best Available Techniques (BAT) Reference Document.

“Capacity” means the potential capacity and not historical or actual production levels or throughput. This means that the designed capacity is the maximum rate at which the site can operate. Biological treatment of waste usually takes place over more than one day, so the physical daily capacity can be calculated by dividing the maximum quantity of waste that could be subject to biological treatment at any one time by the minimum residence time. For in-vessel composting, the residence time for sanitisation should be calculated separately and then aggregated to the complete composting time. Further guidance ‘RGN2: Understanding the meaning of regulated facility Definition of regulated facility’ is available.

“channelled emissions” means the emissions of pollutants into the environment through any kind of duct, pipe, stack, etc. This also includes emissions from open top biofilters.

“combined heat and power” (CHP) or Cogeneration means the simultaneous generation in one process of thermal energy and electrical or mechanical energy.

“competent persons and resources” means that a technically competent person accredited to a relevant scheme must attend site and record their attendance, and that all roles and responsibilities are clearly stated in the management systems along with records of operatives’ training. See the guidance on the level of competence and duration of attendance

“compliance date” means 01/01/2025 for existing MCPs with net rated thermal input of greater than 5MWth or 01/01/2030 for existing MCPs with a net rated thermal input of less than or equal to 5MWth.

“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.

“compostable plastics” means waste containing packaging or non-packaging items (or both) with a valid certificate of conformity to EN 13432 or an equivalent standard for compostable and digestible items, the certificate issued by an independent certification body capable of fully biodegrading by a biological process to create compost or digest.

“composting” means the managed biological decomposition of biodegradable waste organic materials, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat and that result in compost.

“composting batch” means an identifiable quantity of material that progresses through the composting system and when fully processed has similar characteristics throughout. For composting systems that operate on a continuous- or plug-flow basis, batches will be taken to mean a series of “portions of production”.

“direct discharge” means discharge to a receiving water body.

“diffuse emissions” mean non-channelled emissions (e.g. of dust, organic compounds, odour) which can result in ‘area’ sources (e.g. tanks) or ‘point’ sources (e.g. pipe flanges). This also includes emissions from open-air windrow composting.

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

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

“DSEAR” means the Dangerous Substances and Explosive Atmospheres Regulations 2002.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“existing medium combustion plant” means an MCP which was put into operation before 20 December 2018.

“generator” means any combustion plant which is used to generate electricity, excluding mobile, unless it is connected to the national grid.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

“Indirect discharge” means a discharge to a sewer or off-site waste water treatment plant.

“Industrial Emissions Directive” and/or “IED” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Leak detection and repair (LDAR) programme’’ means a structured approach to reduce fugitive emissions of organic compounds by detection and subsequent repair or replacement of leaking components. Currently, sniffing (described by EN 15446) and optical gas imaging methods are available for the identification of leaks as set out in BAT 14 and section 6.6.2 of the Waste Treatment BAT Conclusions.

“limited operating hours MCP” means an MCP that meets the requirements of paragraph 8 of Part 2 of Schedule 25A of the Environmental Permitting Regulations.

*“*maturation” means optional period of treatment or storage of separated fibre digestate under predominantly aerobic conditions.

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

“medium combustion plant” or ”MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“new medium combustion plant” means an MCP which was put into operation after 20 December 2018. This includes replacement MCP and Generators.

“operating hours” means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods

“operational area” means any part of a facility used for the handling, storing and treatment of waste.

“operator” means in relation to a regulated facility:

(a) the person who has control over the operation of the regulated facility,

(b) if the regulated facility has not yet been put into operation, the person who will have control over the regulated facility when it is put into operation, or

(c) if a regulated facility authorised by an environmental permit ceases to be in operation, the person who holds the environmental permit

“pests” means Birds, Vermin and Insects.

“PFOA” means Perfluorooctanoic acid.

“PFOS” means Perfluorooctanesulphonic acid.

“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.

“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.

“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^{0}C, during which biological processes, together with conditions in the composting mass, eradicate human and animal pathogens or reduce them to acceptably low levels. The operator also needs to meet ABPR requirements.

“sealed drainage system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system

- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer.

“specified generator” means a group of generators other than excluded between 1 and 50 megawatts or less than 50 megawatts as defined in Schedule 25B(2) of SI 2018 No.110 of the EPR.

“stable” and/or “stabilised” means the degree of processing and biodegradation at which the rate of biological activity has slowed to an acceptably low and consistent level and will not significantly increase under favourable, altered conditions.

“VOC” means Volatile organic compounds as defined in Article 3(45) of Directive 2010/75/EU – ‘volatile organic compound’ means any organic compound as well as the fraction of creosote, having at 293.15K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.

“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” and/or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

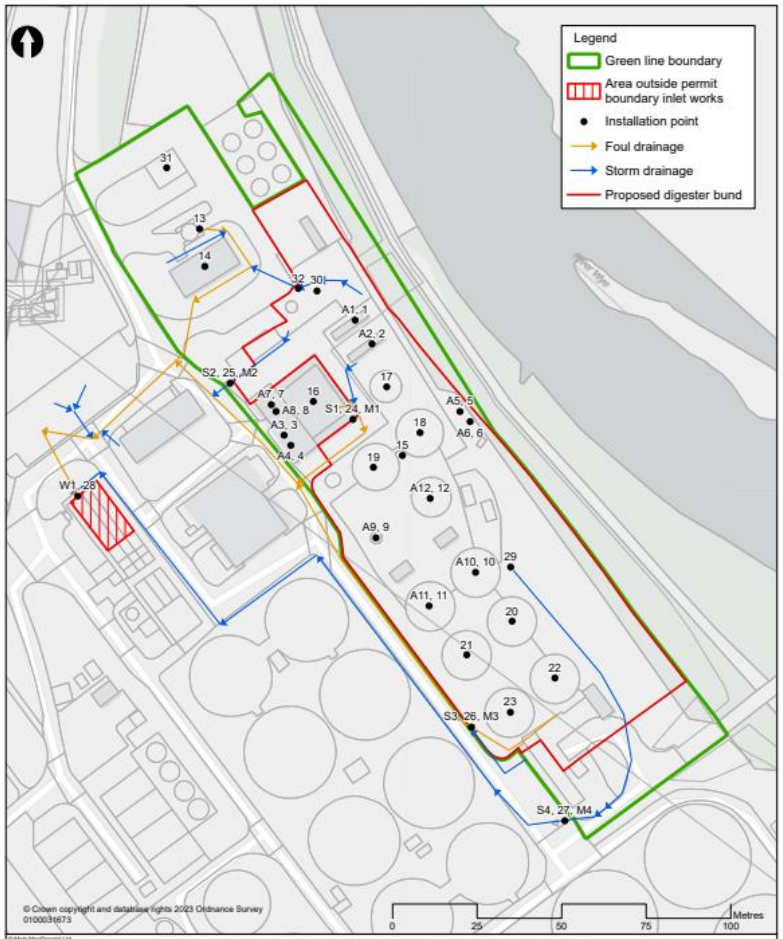
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

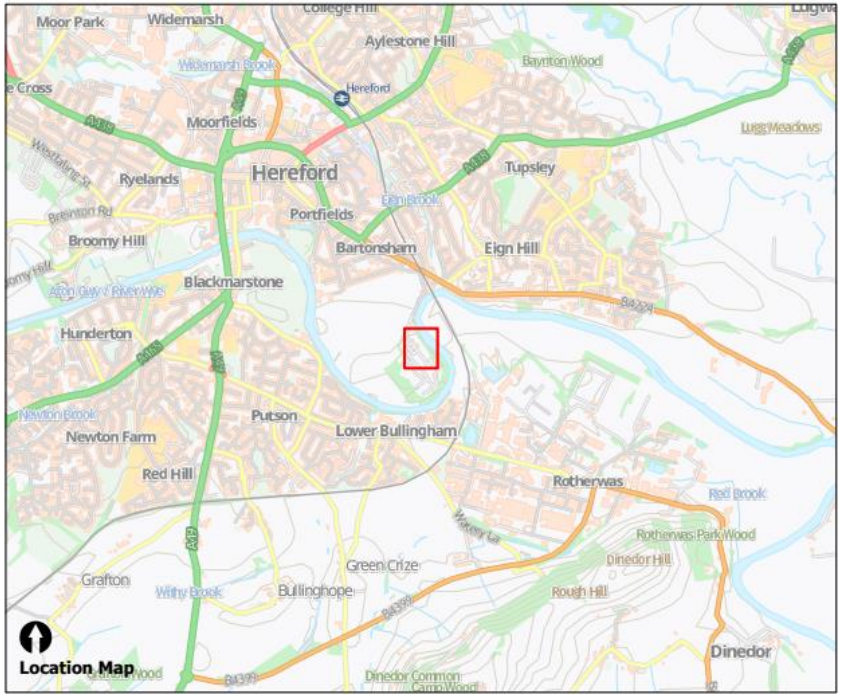
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid fuels and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration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

“year” means a calendar year ending on 31 December.

Schedule 7 – Site plan



Emissions Ref	Emissions Points	Monitoring Ref	Monitoring Points	Assets Ref	Assets	X	Y
A1	CHP 1			1	CHP 1	352081	238874
A2	CHP 2			2	CHP 2	352086	238867
A3	Boiler 1			3	Boiler 1	352060	238840
A4	Boiler 2			4	Boiler 2	352062	238837
A5	Gas Flare Stacks			5	Gas Flare Stacks	352112	238847
A6	Gas Flare Stacks			6	Gas Flare Stacks	352115	238844
A7	Generator 1			7	Generator 1	352065	238851
A8	Generator 2			8	Generator 2	352068	238853
A9	OCU			9	OCU	352088	238809
A10	Digester 1 Wessoe Valve			10	Digester 1	352110	238800
A11	Digester 2 Wessoe Valve			11	Digester 2	352098	238791
A12	Gas Bag Wessoe Valve			12	Gas Bag	352101	238821
				13	Cake Silo	352035	238901
				14	Centrifuges x2	352035	238891
				15	Strainpresses x3	352095	238834
				16	Sludge Thickeners x2	352073	238850
				17	Thickened Sludge Tank	352088	238856
				18	Screened Sludge Tank 1	352098	238842
				19	Screened Sludge Tank 2	352085	238833
				20	Centrifuge Feed Tank	352123	238785
				21	SBR Balance Tank	352109	238776
				22	SBR 1	352136	238769
				23	SBR 2	352123	238759
S1	Centrifuge centrate and thickener liquor emission point	M1	Centrifuge centrate and thickener liquor monitoring point	24	Centrate collection sump	352079	238853
S2	Storm runoff emission point	M2	Storm runoff monitoring point	25	Site drainage discharge point	352041	238858
S3	SBR treated effluent emission point	M3	SBR treated effluent monitoring point	26	SBR discharge Point	352115	238755
S4	Digester bund storm runoff emission point	M4	Digestate bund storm runoff monitoring point	27	Digester bund discharge point	352143	238726
				29	Surface water PS	352127	238801
W1	Foul drainage emission point outside of site boundary			28	STW inlet pump station	351999	238822
				30	Raw sludge sump	352071	238886
				31	Cake clamp	352025	238919
				32	Sludge import point	352084	238883



Title							
Eign IED Site Layout Emissions and Drainage Plan				Capital Delivery Alliance Cynghrair Cyflawni Cyfalaf Ty Awen, Spooner Close, Coed Kernew, Newport, NP108FZ			
Date	Drawn	Checked	Approved	Scale at A4	Drawing Number	Status	Rev
10/10/2024	L James	G Timms	A Manns	1:1,200	100381175-006-MMD-00-XX-DR-Y-0004	INF	02

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Annex 1 of MCP

1. Rated thermal input (MW) of the medium combustion plant.	CHP 1 – 1.725MWth CHP 2 – 1.725MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP engine fuelled on biogas
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Gaseous fuels other than natural gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	CHP 1 – August 2009 CHP 2 – August 2009
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code.	37.00
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	CHP 1 - 8,760 hours per year CHP 2 - 8,760 hours per year
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	**Company name and registered office:** Dwr Cymru Cyfyngedig Dwr Cymru Welsh Water Linea, Fortran Road, St. Mellons, Cardiff, Wales, CF3 0LT **Address where the plant is located:** Eign Sludge Treatment Centre, Eign Wastewater Treatment Works, Outfall Works Road, Hereford, Heredfordshire, HR1 1RY

END OF PERMIT