Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Dwr Cymru Cyfyngedig

Afan Sludge Treatment Centre
Afan Waste Water Treatment Centre
Harbour Road
Phoenix Walk
Port Talbot Steelworks
SA13 1RA

Permit number

EPR/ZP3032KQ

Afan Sludge Treatment Centre

Permit number EPR/ZP3032KQ

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Afan Sludge Treatment Centre (STC) is located within Port Talbot, adjacent to the Bristol Channel at the Afan Waste Water Treatment Works (WwTW). The WwTW is operated under the Urban Wastewater Treatment Regulations (UWwTR) and has a standalone water discharge permit.

Permitted activities include the STC and associated Combined Heat and Power (CHP) plant. Activities comprise of imports, physio-chemical and wet anaerobic digestion (AD) treatment, and the storage of waste.

The STC treats liquid waste derived from the on-site wastewater treatment process and imported undigested and digested sludge cake. The maximum throughput capacity for the site is 488 tonnes per day.

On-site sludge is stored in a sludge cake silo and imported sludges are stored in 2 enclosed hoppers ("cake import centre"). On-site sludge is pre-treated using polymers for thickening.

Sludge is transferred to the Thermal Hydrolysis Plant (THP) for treatment which consists of a pulper, 4 reactor tanks and flash tank. Treated sludge from the THP is diluted using disinfected final effluent and then cooled further. Sludge is then transferred to either of the 2 primary anaerobic digestor tanks where it is digested for a minimum of 13 days. Digested sludge is pumped to an open aerated digested sludge holding tank and then to a belt press building for dewatering. The resultant dewatered sludge cake is discharged into cake bays. From the cake bays, cake is transferred to a roofed cake storage pad and is exported off-site periodically by road trailer for use as fertiliser.

Odour control units are used to treat air from various treatment processes.

Biogas generated from the AD process is stored in 1 No. dual membrane gas storage bags. The biogas is then transferred to the CHP engines where it is combusted in 2 spark ignition engines with a rated thermal input of 3.745 MWth each. The CHP engines are used to generate electricity via an alternator. Waste heat is recovered from the CHP engines (from the engine exhaust and cooling jacket) is used to supplement the 2 composite steam boilers (3.9MWth thermal input each). These are all existing Medium Combustion Plant (MCP) but are not required to meet the requirements of the MCP Directive until January 2030. The biogas is treated prior to combustion by a dedicated Siloxane removal plant, with carbon filter. A high temperature waste gas burner is also available to flare off excess biogas.

All process liquors, condensate and all water run-off from within the secondary containment bund will be directed via the sealed drainage system to the liquor returns well for treatment at the on-site Waste Water Treatment Works. Clean uncontaminated surface water run-off from the roof drainage system will be discharged to land via 4 soakaways.

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**
Permit determined EPR/ZP3032KQ/A001	26/05/10	Permit issued to Dŵr Cymru Cyfyngedig
Environment Agency variation determined EPR/ZP3032KQ/V002	27/03/13	Environment Agency initiated variation to implement changes introduced by the Industrial Emissions Directive (IED) 2013
Variation determined EPR/ZP3032KQ/V003	19/02/14	Variation issued to include abatement process for the removal of siloxane.
Application EPR/ZP3032KQ/V004	Duly made 13/08/18	Application to amend the parts of the permit relating to the height of biogas flare and operating process of the surplus gas burner combustion chamber.
Variation determined EPR/ZP3032KQ	24/09/18	Varied permit issued.
Application EPR/ZP3032KQ/V005 (PAN-027050)	Duly made 25/02/2025	Application to add Anaerobic Digestion process (installation activity) to permit.
Additional information received in response to Schedule 5 Notice sent on 19/03/2025	01/05/2025	Updated site plans and operating technique documents.
Additional information received in response to Schedule 5 Notice sent on 19/03/2025	01/10/2025 03/10/2025	Implementation plans and additional information relating to the secondary containment system.
Additional information received in response to informal information request sent on 12/04/2026	17/04/2026	Updated Main Supporting Document and further clarification regarding on-site operation.
Additional information received in response to informal information request sent on 24/04/2026	15/05/2026 21/05/2026	Updated information regarding Environmental Management System and updated Site Plan.
Variation determined EPR/ZP3032KQ/V005	TBC	Variation and consolidated installations permit issued.

End of introductory note.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/ZP3032KQ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/ZP3032KQ/V005 authorising

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 a regulated facility at

Afan Sludge Treatment Centre
Afan Waste Water Treatment Centre
Harbour Road
Phoenix Walk
Port Talbot Steelworks
SA13 1RA

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

Signed	Date
TBC	TBC

Authorised on behalf of Natural Resources Wales

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

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

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

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and 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 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 Natural Resources Wales

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

2.3.3 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.

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.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in Schedule 1 Table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

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

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

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

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

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

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

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

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.2.4 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 Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

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

3.4 Noise and vibration

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

3.4.2 The operator shall:

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

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

3.5 Monitoring

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

(a) point source emissions specified in tables S3.1,S3.2 and S3.3; and

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

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

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

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

3.6 Pests

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

3.6.2 The operator shall:

(a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;

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

4. Information

4.1 Records

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

(a) be legible;

(b) be made as soon as reasonably practicable;

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

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

(i) off-site environmental effects; and

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

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

4.2 Reporting

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

4.2.2 For the following activity referenced in schedule 1, table S1.1, A1, a report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year. The report(s) shall include as a minimum:

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

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

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

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

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

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

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

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

4.2.5 For the following activities referenced in schedule 1, table S1.1 (A1), within 1 month of the end of each quarter, the operator shall submit to Natural Resources Wales using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 For the following activities referenced in schedule 1, table S1.1, A1:

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

(i) inform Natural Resources Wales,

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

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

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

(i) inform Natural Resources Wales, and

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

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

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

4.3.3 For the following activities referenced in schedule 1, table S1.1, A1, Natural Resources Wales shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in the permit; or

(c) any significant adverse environmental effects.

4.3.4 Any information provided under condition 4.3.3 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

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

4.3.6 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

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.

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

(a) Natural Resources Wales shall be notified at least 14 days before making the change; and

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

4.3.8 Natural Resources Wales shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "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(1)(b)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving (i) biological treatment	Anaerobic Digestion (AD) (with a capacity exceeding 100 tonnes per day) of permitted waste types followed by burning of biogas produced from the process as a fuel to produce energy. **R3:** Recycling/reclamation of organic substances which are not used as solvents	From receipt of permitted waste through to AD and recovery of by-products. Wastes as specified in Schedule 2 Table S2.2. Includes treatment in Thermal Hydrolysis Plant (THP), 2 primary anaerobic digestion tanks, an open aerated digested sludge holding tank and dewatering process within a belt press building. Biogas generated by process is used as a fuel to generate electricity. Total maximum daily throughput of 488 tonnes of permitted waste per day. Total annual throughput capacity of 438,000 tonnes.
Directly Associated Activity			
AR2	Storage of waste pending recovery or disposal	**R13:** Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on site where it is produced)	Undertaken in relation to activity reference A1. From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site. Waste types as specified in Schedule 2 Table S2.2. Storage of residual wastes from pre-treatment to dispatch off-site for recovery. Storage of waste shall be in enclosed equipment or an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system.

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**
AR3	Physical treatment of waste for the purpose of recycling	Thickening of incoming waste received from the on-site WwTW using polymers. Heat treatment (thermal hydrolysis) in a Thermal Hydrolysis Plant (THP). The plant consists of a pulping tank, four reactor tanks and a flash tank. Pre-treatment of waste for dilution (pre and post hydrolysis) and cooling (post hydrolysis). Post-treatment of waste using a using a belt press for dewatering. Gas cleaning by biological or physical (carbon filtration) or chemical scrubbing **R3:** Recycling/reclamation of organic substances which are not used as solvents	Undertaken in relation to activity reference A1. From 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. 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.
AR4	Digestate storage	Storage of processed liquid and solid digestate in storage tanks. **R13:** Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on site where it is produced)	Undertaken in relation to activity reference A1. From the receipt of processed digestate produced by the on-site AD process to despatch off-site. Includes storage of processed solid digestate in an enclosed vessel with odour abatement (cake barn) and storage of processed liquid digestate in storage tanks on an impermeable surface with sealed drainage system
AR5	Raw material storage	Storage of raw materials including chemicals, lubrication oil, diesel and activated carbon	From receipt of raw materials to despatch for use within the facility.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR6	Biogas storage and supply system	Storage of biogas produced from on-site anaerobic digestion **R13:** Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on site where it is produced)	Undertaken in relation to activity reference A1. From receipt of biogas produced at the one on-site AD process to despatch for use within the facility. Storage within 2 on-site dual membrane biogas storage bags or roof space of the digesters. Emissions of unburnt biogas shall be minimised.
AR7	Siloxane removal plant	Gas cleaning by removal of siloxane from biogas using an activated carbon filter. **R3:** Recycling/reclamation of organic substances which are not used as solvents	Gas from the on-site AD process prior to use as fuel.
AR8	Steam and electrical power supply	The combustion of biogas in combined heat and power (CHP) engines and boilers for the production of steam, hot water and electricity for use within the installation and export to national grid. **R1:** Use principally as a fuel or other means to generate energy	Undertaken in relation to activity reference A1. From receipt of biogas produced at the on-site AD process to the release of combustion gases. 2 combined heat and power (CHP) engines with a thermal input of 3.74 MWth each and 2 auxiliary boilers with a thermal input of 3.9 MW thermal each.
AR9	Emergency flare operation	Use of an auxiliary flare required only for periods of breakdown or maintenance of the CHP engines **D10**: Incineration on land	Undertaken in relation to activity reference A1. From receipt of biogas to the release of combustion products from the flare stack
AR10	Odour abatement	Operation of 2 odour control units.	From collection of air from onsite processes to treatment and release of treated air to atmosphere.
AR11	Surface water collection system	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

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Section 5 of the Part B Application Form	20/10/09, (duly made 27/11/09)
Application	Odour Management Plan (100123523_MSD_OdourMP_AFA_September 2024) Leak Detection and Repair Plan Summary September 2024 Waste Acceptance and Pre-acceptance Procedure (10012523_WAP_AFA September 2024)	27/09/2024
Additional information	B16399-123532-ZZ-XX-AS-ZA-CI1012 - Afan ADBA Assessment October 2024 Note 1 B16399-123532-ZZ-XX-RP-WA-HY1008 - Afan WwTW Sludge Containment Assessment September 2024 Note 1	29/01/2025
Response to Schedule 5 Notices	B16399-123532-XX-AB-MA-ZA-OA0038 - Flood Gate Control Philosophy March 2025 Residue Management Plan (100123523_MSD_ResidueMP_AFA March 2025) Process controls and risk management methods as described in the Environmental Risk Assessment (100123523_ERA_AFA March 2025) Accident Management Plan (100123523_AMP_AFA March 2025)	03/04/2025
	Site specific operating techniques as detailed in supporting document 'Best Available Techniques Assessment' (100123523_BAT_AFA August 25) Afan Sch 5 response - wastewater steams Qu5 190825 Drainage Plan (B14411-123532-XX-XX-DR-CA-CI9005 Afan Sch 5 response - drainage plan Qu 3 290725) Process Flow Diagram (B17497-123532-ZZ-ZZ-DI-PA-PR1007 Afan Sch 5 response - PFD Qu4 130825)	01/10/2025
	B17497-123532-XX-XX-RP-KA-DH0035 Afan Sch 5 response - firefighting water Qu 1 021025 V1 Note 1	03/10/2025
Response to information request	Sections 1.2, 1.3,5.3,5.6,5.8 and 5.10 in Main Supporting Document (100123523_MSD_AFA April 2026) Afan IED NRW Program Submission	17/04/2026
Note 1: Final containment design and implementation to be finalised upon completion of improvement condition reference IC1a		

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1a	The operator shall provide finalised designs for the secondary containment systems proposed in the documents: • "B16399-123532-ZZ-XX-RP-WA-HY1008 - Afan WwTW Sludge Containment Assessment September 2024 (1).pdf" September 2024 • "B16399-123532-XX-AB-MA-ZA-OA0038 - Flood Gate Control Philosophy" March 2025. • "B17497-123532-XX-XXX-RP-KA-DH0035 Afan Sch 5 response – firefighting water Qu 021025" October 2025 The finalised designs 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 plans shall also be accompanied with: • A wastewater and digestate buffer storage plan; • An updated site and infrastructure plan; and • A preventative maintenance and inspection regime The designs should be submitted to Natural Resources Wales for approval in writing by the date specified.	Within 3 month of permit issue or as otherwise agreed in writing with Natural Resources Wales
IC1b	The operator shall submit, for written approval, an updated BAT assessment in order to evidence how the finalised designs and specifications ensure compliance with BAT 19 of the Waste Treatment BREF/BAT conclusions Document (EU 2018), specifically techniques to: d) reduce likelihood and impact of tank/vessel overflows and failures; f) segregation of waste water streams; g) adequate drainage infrastructure; and i) appropriate buffer storage capacity	Within 3 month of permit issue or as otherwise agreed in writing with Natural Resources Wales
IC1c	The operator shall submit a report by a qualified engineer (or equivalent) confirming that the proposed containment system has been constructed to the standards and descriptions in the final containment design documents agreed in writing with NRW under IC1a. The report should reference the CIRIA C736 (2014) guidance. The operator shall submit the report to Natural Resources Wales for approval in writing by the date specified.	Within 12 months of completion of IC1a and IC1b or as otherwise agreed in writing with Natural Resources Wales
IC2a	In relation to BAT 1xi and BAT 3(ii) of the Waste Treatment BREF/BAT conclusions Document (EU 2018), the operator shall submit a finalised sampling program in relation to waste water streams for approval with Natural Resources Wales. The finalised plan shall update document '100123523_ SamplingPlan_AFA (September 2024)' and be in accordance with the methodology described in document 'Afan Sch 5 response – wastewater streams Qu5 190825'.	Within 12 months of permit issue or as otherwise agreed in writing with Natural Resources Wales
IC2b	Following completion of IC2a, the monitoring program shall be carried out in accordance with the agreed waste water sampling plan. The operator shall confirm with Natural Resources Wales when the sampling program is completed.	Within 12 months of completion of IC2a or as otherwise agreed in writing with Natural Resources Wales

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC2c	Following completion of IC2b, the operator shall submit a report for written approval by Natural Resources Wales. The report shall include, but not be limited to; • the waste water sampling results; • a completed H1 risk assessment and a summary of the modelling outputs where appropriate; • a summary of what mandatory emissions limits (BAT AELs) and monitoring requirements for indirect discharges to water are relevant to the site as set out in BAT 20 and BAT 7 of the Waste Treatment BREF/BAT conclusions Document (EU 2018); and • conclusions on whether the waste water discharged to discharge point S1 will have any adverse impact on the receiving waters following discharge from the Afan Waste Water Treatment Works. The assessment shall be made against the parameters specified in the relevant environmental standards specified in the following 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); and • 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 report shall also include any proposals and/or additional measures required to prevent or minimise any significant emissions from the installation and ensure compliance with the relevant BAT AELs specified in BAT 20 of the Waste Treatment BREF/BAT conclusions Document (EU 2018) along with timescales for implementation.	Within 3 months of completion of IC2b or as otherwise agreed in writing with Natural Resources Wales
IC2d	Following completion of the IC2c, the operator shall implement any improvements identified within the report approved under IC2c Written confirmation shall be submitted to Natural Resources Wales that the improvements have been completed.	Within 3 months of completion of IC2c or as otherwise agreed in writing with Natural Resources Wales
IC2e	The operator shall submit an updated BAT assessment in order to evidence compliance with BAT 1xi, BAT 3(ii), BAT 20 and BAT 7 of the Waste Treatment BREF/BAT conclusions Document (EU 2018).	Within 3 months of completion of IC2c or as otherwise agreed in writing with Natural Resources Wales

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC3a	The operator shall carry a full investigation and characterisation of waste gas streams of the abatement plants OCU1 (EP6) and OCU2 (EP7): • to determine whether proposed measures have been effective and adequate to prevent, or where this is not possible, minimise, emissions released to air (including but not limited to odour, ammonia, hydrogen chloride (HCl) and TVOC); • to satisfy requirements specified in to BAT 1xi and BAT 3(iii) of the Waste Treatment BREF/BAT conclusions Document (EU 2018); • to determine applicability of BAT AELs set out in BAT 34 and 53 of the Waste Treatment BREF/BAT conclusions Document (EU 2018); • to determine what monitoring requirements as set out in BAT 8 of the Waste Treatment BREF/BAT conclusions Document (EU 2018) apply The operator shall confirm with Natural Resources Wales when this is completed.	Within 6 months of permit issue or as otherwise agreed in writing with Natural Resources Wales
IC3b	Following completion of IC3a, the operator shall submit a report for written approval by Natural Resources Wales. The report shall include (but not be limited to): • the details of the improvements made, including any improvement or replacement of any of the abatement plants; • updated waste gas treatment descriptions including performance details; • the results from the investigation specified in IC3a • abatement process monitoring results; and • an updated Odour Impact Assessment following guidance set out in Horizontal Guidance Note 4 Odour Management or any subsequent amendment or replacement of that guidance	Within 3 months of completion of IC3a or as otherwise agreed in writing with Natural Resources Wales
IC3c	The operator shall submit an updated BAT assessment in order to evidence compliance with BAT 1xi, BAT 3(iii), BAT 34, BAT 53 and BAT 8 of the Waste Treatment BREF/BAT conclusions Document (EU 2018).	Within 3 months of completion of IC3a or as otherwise agreed in writing with Natural Resources Wales

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC4	In accordance with BAT 15 of the Waste Treatment BREF/BAT conclusions Document (EU 2018), the operator shall carry out a review on the operation of the gas management infrastructure to determine whether improvement measures have been effective and adequate to maximise biogas energy recovery rather than disposal by flaring. The operator shall submit a written report to Natural Resources Wales for written approval. The report shall include (but not be limited to): • Determining whether the upgraded biogas clean-up system and works to address legacy pressure issues has been effective in maximising biogas energy recovery and reducing disposal by flaring; • Identify any further improvements requires and timescales for implementing the identified improvements; and • Further evidence that the works have satisfied BAT conclusions 15 and 16 of the Waste Treatment BREF/BAT conclusions Document (EU 2018) Should further improvements be proposed and agreed in writing with Natural Resources Wales, they are to be implemented in accordance with the approved timescale.	Withing 6 months of permit issue or as otherwise agreed in writing with Natural Resources Wales
IC5	The Operator shall submit to Natural Resources Wales a climate change risk assessment that includes current and future climate change projections. The assessment must be site specific and uses the most up to date climate projections to: • plan and manage the risks associated with a 2°C rise by 2050; • assess the risks associated with a 4°C rise by 2100; • avoid lock-in to future proof your site; • consider internal, external, and consequential climate change impacts; and • develop a plan to regularly update the assessment based on new data or emerging climate trends	Within 6 months of permit issue or as otherwise agreed in writing with Natural Resources Wales

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC6	The Operator shall submit a monitoring and management plan for non-CO_2 greenhouse gas emissions, including emissions of methane (CH_4) and other non-CO2 GHGs such as FGases. This plan, as a minimum, shall contain monitoring and management controls for: • Methane emissions as a result of slip from any combustion activities. This will include details of monitoring provisions (including reference to any appropriate standards including but not necessarily limited to EN ISO 25139 and EN ISO 25140) and frequency, and any continuous improvement measures and actions to improved performance, especially where the methane emissions deviate from the manufacturer's specification • Leak detection and repair. This will include details of the provisions for leak detection, frequency, methods, and quantification and any continuous improvement measures and actions to improved performance and reduce non-CO_2 greenhouse gas releases from the facility. For FGas monitoring and management, any approach will need to comply with all the relevant FGas legislative requirements. The plan shall also include proposals for the review of the plan itself which shall not be greater than 3 years. The plan shall also be incorporated into the environmental management system	Within 12 months of permit issue or as otherwise agreed in writing with Natural Resources Wales

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	-

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 438,000 tonnes
Waste code	**Description**
19	**Waste from waste management facilities, offsite waste water treatment plant and the preparation of water intended for human consumption and water for industry 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
19 08	**Wastes from waste water treatment plants not otherwise specified**
19 08 05	sludges from treatment of urban wastewater
19 12	**Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 12	wastes from mechanical treatment of wastes other than those mentioned in 19 12 11 (sewage sludge only)

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) Note 1	Reference period	Monitoring frequency Note 5	Monitoring standard or method Note 6
A1 CHP Unit 1	Exhaust of spark ignition engines via individual, 24m unimpeded vertical stacks	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500mg/m^3	Hourly Mean	Annual	BS EN 14792
		Sulphur dioxide (SO_2)	339mg/m^3			BS EN 14791
		Carbon Monoxide (CO)	1400mg/m^3			BS EN 15058
A2 CHP Unit 2	Exhaust of spark ignition engines via individual, 24m unimpeded vertical stacks	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500mg/m^3	Hourly Mean	Annual	BS EN 14792
		Sulphur dioxide (SO_2)	339mg/m^3			BS EN 14791
		Carbon Monoxide (CO)	1400mg/m^3			BS EN 15058
A3 Boiler Unit 1	Combustion products from boilers emitted via individual, 24m unimpeded vertical stacks	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	170mg/m^3	Hourly Mean	Annual	BS EN 14792
		Sulphur dioxide (SO_2)	160mg/m^3			BS EN 14791
		Carbon Monoxide (CO)	75mg/m^3			BS EN 15058
A4 Boiler Unit 2	Combustion products from boilers emitted via individual, 24m unimpeded vertical stacks	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	170mg/m^3	Hourly Mean	Annual	BS EN 14792
		Sulphur dioxide (SO_2)	160mg/m^3			BS EN 14791
		Carbon Monoxide (CO)	75mg/m^3			BS EN 15058
A5 biogas flare with a combustion temperature of at least 1,000 °C and a residence time of at least 0.3 seconds	Combustion products from biogas flare via a 7.5m unimpeded vertical stack	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150mg/m^3	Hourly Mean	Annual Note 2	BS EN 14792
		Carbon Monoxide (CO)	50mg/m^3			BS EN 15058
		Sulphur dioxide (SO_2)	339mg/m^3			BS EN 15058
		Operational temperature	>1000°C	Instantaneous reading		

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit) Note 1**	**Reference period**	**Monitoring frequency Note 5**	**Monitoring standard or method Note 6**
A6 Digester 1 Pressure Relief Valve	Biogas release and operational emergency events	Hydrogen sulphide (H_2S)	-	-	-	-
A7 Digester 2 Pressure Relief Valve		No parameters set	-	-	-	-
A8 Odour Control Unit 1 ("OCU1")	Channelled emissions to air from activated carbon filter outlet	Ammonia (NH_3) Note 3	20 mg/Nm^3	-	Every 6 months	EN ISO 218877 or CEN TS 17337
		Odour concentration Note 3	1000Oue/Nm^3			BN 13725
		Hydrogen sulphide (H_2S) Note 3	-			US EPA Method 11 (Impinger method) or CEN TS 13649 (Charcoal tube) or US EPA Method 15
		TVOC Note 4	-			EN 12619
A9 Odour Control Unit 2 (OCU2)	Channelled emissions to air from sulphuric acid scrubber outlet	Ammonia (NH_3) Note 3	20 mg/Nm^3	-	Every 6 months	EN ISO 218877 or CEN TS 17337
		Odour concentration Note 3	1000Oue/Nm3			BN 1375
		Hydrogen sulphide (H_2S) Note 3	-			US EPA Method 11 (Impinger method) or CEN TS 13649 (Charcoal tube), US EPA Method 15
		TVOC Note 4	-			EN 12619
A10 Gas Holder Pressure Relief Valve	Biogas release and operational emergency events	No parameters set	-	-	-	-
		Hydrogen sulphide (H_2S)				

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit) Note 1**	**Reference period**	**Monitoring frequency Note 5**	**Monitoring standard or method Note 6**
Note 1: These limits do not apply during start up and shut down. These limits are based on normal operating conditions and load temperature 0°C (273K); 101.3kPa and oxygen: 5 per cent (dry gas). The measurement uncertainty specified in LFTGN08 v2 2010 shall apply						
Note 2: 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 to NRW annually						
Note 3: Monitoring and limits only applicable to ammonia *or* odour. If odour is not monitored, monitoring of ammonia and H_2S is required. Option to be confirmed as part of Improvement Condition 3 (IC3). In the absence of an approved improvement condition response within the agreed timeframe, the listed BAT AELs shall apply						
Note 4: Monitoring and limits only apply where the substance concerned is identified as relevant in the waste gas inventory as determined by Improvement Condition 3 (IC3). In the absence of an approved improvement condition response within the agreed timeframe, the listed BAT AELs shall apply						
Note 5: Monitoring frequency as specified unless other alternative appropriate frequency agreed in writing with Natural Resources Wales						
Note 6: Monitoring standard as specified unless other appropriate standard or method agreed in writing with Natural Resources Wales						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter Note 1**	**Limit (incl. unit) Note 1**	**Reference Period**	**Monitoring frequency Note 1 and Note 2**	**Monitoring standard or method Note 3**
W1 Discharge to land via soakaway	Uncontaminated site surface water from roof drainage system	Oil and grease	No visible oil and grease	-	Weekly	Visual Inspection
W2 Discharge to land via soakaway						
W3 Discharge to land via soakaway						
W4 Discharge to land via soakaway						

Table S3.3 Point Source emissions to sewer – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter Note 1**	**Limit (incl. unit) Note 1**	**Reference Period**	**Monitoring frequency Note 1 and Note 2**	**Monitoring standard or method Note 3**
		Oil and grease	No visible oil and grease	-	Weekly	Visual Inspection

Table S3.3 Point Source emissions to sewer – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter** Note 1	**Limit (incl. unit)** Note 1	**Reference Period**	**Monitoring frequency** Note 1 and Note 2	**Monitoring standard or method** Note 3
S1 Liquor Return Well – discharged to Afan WwTW	Liquors from sludge treatment and surface water from within secondary containment system	Benzene, toluene, ethybenzene, xylene (BTEX)	-	Spot sample or flow-proportional composite sample	Monthly	EN ISO 15680
		Hydrocarbon oil index (HOI)	10mg/l		Daily	EN ISO 9377-2
		Free cyanide (CN^-)	0.1 mg/l			EN ISO 14403-1 or EN ISO 14403-2
		Adsorbable organically bound halogen (AOX)	1 mg/l			EN ISO 9562
		Arsenic (As)	0.1 mg/l			EN ISO 11885, EN ISO 17294-2 or EN ISO 15586
		Cadmium (Cd)	0.1 mg/l			
		Chromium (Cr)	0.3 mg/l			
		Copper (Cr)	0.5 mg/l			
		Lead (Pb)	0.3 mg/l			
		Nickel (Ni)	1 mg/l			
		Zinc (Zn)	2 mg/l			
		Manganese (Mn)	-			
		Mercury (Hg)	10 µg/l			EN ISO 17852 or EN ISO 12846
		Hexavalent chromium (Cr(VI))	0.1 mg/l			EN ISO 10304-3 or EN ISO 23919
		PFOA and PFOS	-		Once every 6 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 IC2a. In the absence of an approved improvement condition response within the agreed timeframe, the listed BAT-AELs shall apply						
Note 2: Monitoring frequency as specified unless other alternative appropriate frequency agreed in writing with Natural Resources Wales						
Note 3: Monitoring standard as specified unless other appropriate standard or method agreed in writing with Natural Resources Wales						

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter** Note 1	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Digester feed	pH	Weekly	None specified	-
	Alkalinity			
	Hydraulic and organic loading rates			

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter** [Note 1]	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Digester	Operating temperature	Continuous	Continuous in-line monitor	-
	Liquid and foam levels			
	Concentration of ammonia	Weekly	Handheld monitor	-
	Concentration of VFAs			
	Alkalinity			
	FOS/TAC ratio (VFA/TA)			
	pH			
Digestate	Concentration of VFAs	Weekly	None specified	-
	Concentration of Ammonia			
Biogas from digesters	Flow	Weekly	Handheld monitor	-
	Quantity			
	Pressure			
	Composition			
	Methane			
	Hydrogen Sulphide			
	Carbon DioxideA			
Biogas from digesting tank, biogas holder, waste reception building and external storage areas	Odour	Daily	Olfactory Monitoring	Odour detection at site boundary
Biogas from Pressure Relief Valves	Duration and frequency of releases	-	-	-
Note 1: There is no requirement to report process monitoring data. The information shall be made available at the installation for inspection				

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1-A10	Annually	1 January
Emissions to sewer Parameters as required by condition 3.5.1.	S1	Annually	1 January

Table S4.2: Annual production/treatment

Parameter	Units
Biogas produced by AD Facility	m^3
Total amount of waste treated	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Power output – Electricity	Annually	MWh
Energy efficiency	Annually	MWh/m^3 biogas
Electrical energy exported to the grid	Annually	MWh
Electrical energy drawn from the grid	Annually	MWh
Water usage	Annually	m^3
Total raw material used	Annually	tonnes
Operational time of emergency flare	Annually	% of operational time
Amount of biogas sent to emergency flare	Annually	m^3
Generation of residues	Annually	tonnes
Generation of waste water	Annually	m^3
Amount of biogas combusted in the CHP unit per day	Annually	m^3 day

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	TBC
Water	Form water 1 or other form as agreed in writing by Natural Resources Wales	TBC
Sewer	Form sewer 1 or other form as agreed in writing by Natural Resources Wales	TBC
Process monitoring	Form process 1 or other form as agreed in writing by the Natural Resources Wales	TBC
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	TBC

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	XX/XX/XXXX
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	XX/XX/XXXX
Waste Subject to Conditions 4.2.5	Waste tonnage return form from the Natural Resources Wales website or other form as agreed in writing by Natural Resources Wales	N/A

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for: **any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment**	
To be notified 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 permit condition	
To be notified within 24 hours of detection	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

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

(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified 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.

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

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

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

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

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

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.
- *"best available treatment, recovery and recycling techniques"* shall have the meaning given to it in the document published jointly by the Department for Environment, Food and Rural Affairs, the Welsh Assembly Government and the Scottish Executive on 27th November 2006, entitled "Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRRT) and Treatment of Waste Electrical and Electronic Equipment (WEEE).

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

"emissions to land" includes emissions to groundwater.

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

"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.

"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.

"hazardous waste" has the meaning given in the Hazardous Waste (Wales) Regulations 2005 (as amended)

"hazardous substance" means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

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

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

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

"Pests" means Birds, Vermin and Insects.

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

"recovery" or "R" 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.

'*residue*' means the solid waste generated by the waste treatment activity and is not directly related to the type of waste treated in the plant.

"*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.

"Waste code" means the six digit code referable to a type of waste in accordance with the list of wastes established by Commission Decision 2000/532/EC as amended from time to time (the 'List of Wastes Decision') and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or *"WFD"* means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

"*Waste Treatment BAT Conclusions*" means the BAT Conclusions for the Waste Treatment sector published as a Commission Implementing Decision EU 2018/1447 in the Official Journal of the EU on 17 August 2018.

"year" means calendar year ending 31 December.

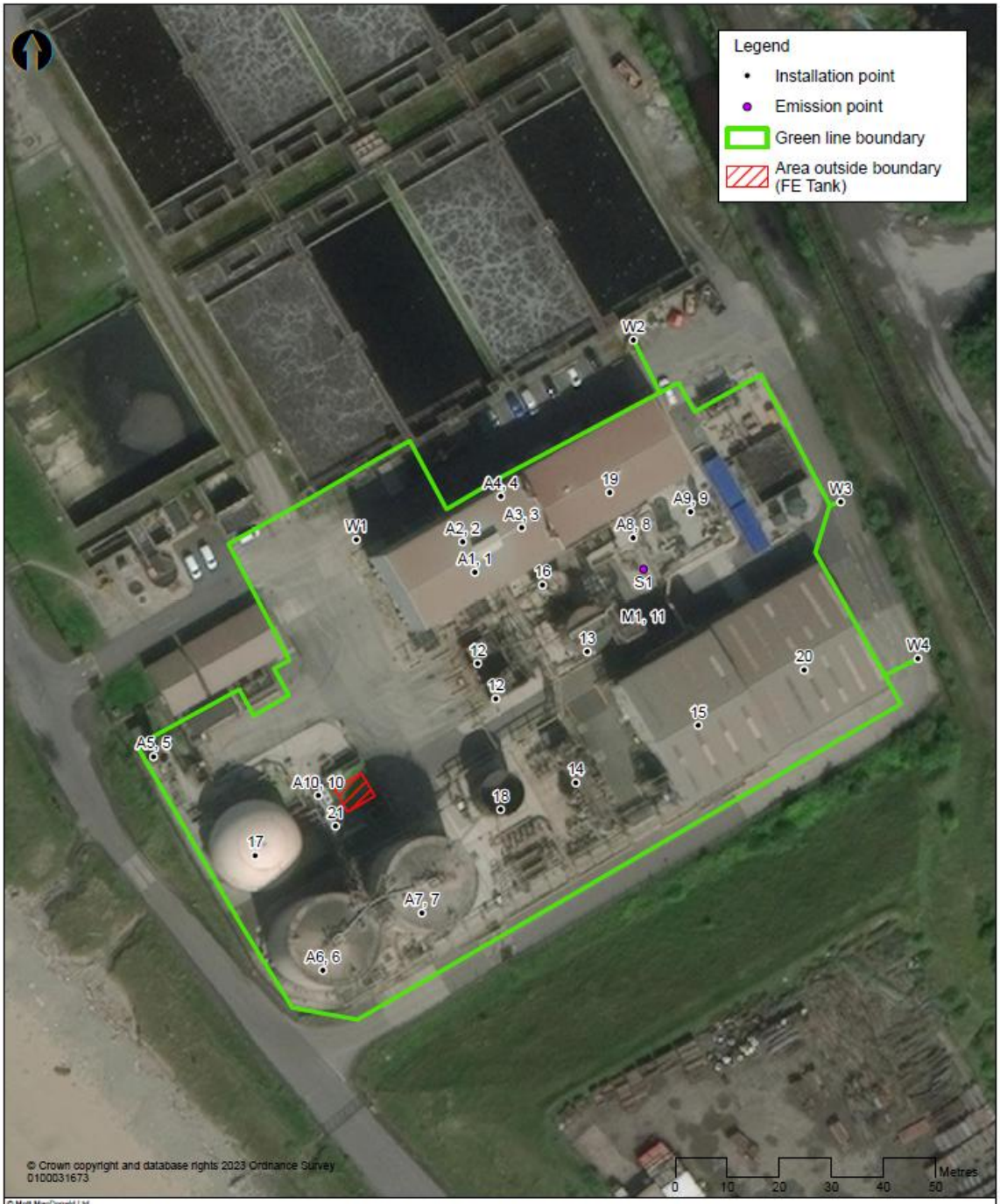
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

(a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

(b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Schedule 7 - Site plan



Title							
Afan IED Site Layout Plan				MOTT MACDONALD	Mott MacDonald House 8-10 Sydenham Road Croydon T +44 (0)20 8774 2000 W mottmac.com		
Date	Drawn	Checked	Approved	Scale at A4	Drawing Number	Status	Rev
21/05/2026	D Evans	S Stone	A Manns	1:1,000	100123423-MMD-00-XX-DR-Y-0001	INF	07

Emissions Ref	Emissions Points	Assets Ref	Assets	X	Y
W1	Soakaway (existing) outside containment area			276108	187353
W2	Soakaway (existing)			276161	187391
W3	Soakaway (new)			276201	187360
W4	Soakaway (existing)			276216	187330
A1	CHP Unit 1	1	CHP Unit 1	276131	187346
A2	CHP Unit 2	2	CHP Unit 2 (not in use)	276128	187352
A3	Boiler Unit 1	3	Boiler Unit 1	276140	187355
A4	Boiler Unit 2	4	Boiler Unit 2	276136	187361
A5	Flare Stack	5	Biogas Flare Stack	276069	187311
A6	Digester 1 PRV	6	Digester 1	276101	187270
A7	Digester 2 PRV	7	Digester 2	276120	187281
A8	OCU Carbon Filter	8	OCU Carbon Filter	276161	187353
A9	OCU Sulphuric Acid Scrubber	9	OCU Sulphuric Acid Scrubber	276172	187358
A10	Gas Holder PRV	10	Gas Holder	276101	187304
S1 M1	Liquor Return Well to Sewer Liquor Monitoring Point	11	Liquor Return Well	276163	187347
		12	Raw Sludge Import Hoppers	276131	187329
		12	Raw Sludge Import Hoppers	276135	187322
		13	THP Feed Silo	276152	187331
		14	Thermal Hydrolysis Plant (THP)	276150	187306
		15	Belt Presses x 3	276173	187317
		16	Indigenous Sludge Silo	276144	187344
		17	Gas Holding Tank	276088	187292
		18	Digested Sludge Holding Tank	276136	187301
		19	2 x Centrifuges	276157	187362
		20	Cake Storage Bays	276194	187328
		21	Siloxane Carbon Filter (No emissions)	276104	187298

END OF PERMIT