

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Carmarthenshire County Council

**Phase 1 Effluent Treatment Plant
Nantycaws Landfill Site
Llanddarog Road
Carmarthen
SA32 8BG**

Permit number

EPR/PP3338CQ

Nantycaws Landfill Site Phase 1 Effluent Treatment Plant

Permit number EPR/PP3338CQ

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The Phase 1 Effluent Treatment Plant will treat leachate from the closed phase of Nantycaws Landfill Site. The original effluent treatment plant has been redesigned and will be upgraded to comprise a Submerged Aerobic Filter system, which will be regulated by the Environmental Permit.

Leachate will be initially aerated in an underground tank, using a blower coupled to fine bubble diffusers, to remove iron. The leachate will then be transferred to a settlement tank to settle out suspended solids, which will be periodically removed from the tank and disposed of in the active phase of the Nantycaws Landfill Site or other appropriately licensed facility, before being passed to the Submerged Aerobic Filter tanks (SAF tanks). The SAF tanks will each be aerated by a grid of fine bubble diffusers mounted on the base of the tank, coupled to an air blower. The tanks will be packed with plastic media to provide a high surface area for micro-organisms to grow and nitrify the leachate, thereby reducing the ammonium concentration and making the effluent suitable for discharge to the Afon Bantwen. The discharge will be monitored on a twice per week basis and a sample will be analysed on a monthly basis by an independent laboratory to ensure it meets the requirements of the Environmental Permit and does not cause pollution of the Afon Bantwen.

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/PP3338CQ	Duly made 25/04/2012	Application for leachate treatment plant
Schedule 5 Notice requiring provision of additional information	25/04/2012	Additional information required on operating techniques, monitoring regime, leachate analysis results, Habitats Risk Assessment, Technical Competence etc
Partial Response to Schedule 5 Notice	09/05/2012	Additional information received on operating techniques, monitoring regime, leachate analysis results
Requirement for further additional information	22/05/2012	Reconfirm that additional information required on Habitats Risk Assessment and Technical Competence
Additional information	09/08/2012	Habitats Risk Assessment, Rev 1

received		(dated 3 August 2012)
Requirement for further additional information	04/09/2012	Clarification of dilution rate used in the Habitats Risk Assessment
Additional information received	10/09/2012	Habitats Risk Assessment, Rev 2 (dated 10 September 2012)
Response to Schedule 5 Notice	11/09/2012	Site Condition Report
Response to Schedule 5 Notice	14/09/2012	Proof of SPOC registration
Response to request for additional information	20/09/2012	Details of pollution prevention measures at tankering
Permit determined	28/09/2012	Permit issued to Webs Limited
Variation application EPR/PP3338CQ/V002	Duly made	Variation to increase their total daily volume of discharge and increase their iron limit. Also, to increase their treatment capacity by addition of tanks and also amend the permit boundary to correctly reflect the site layout.
Variation determined EPR/PP3338CQ/V002	12/04/2016	Variation issued.
Application EPR/PP3338CQ/T003	Duly made 02/07/2018	Application to transfer the permit in full to Carmarthenshire County Council
Transfer determined EPR/PP3338CQ/T003	08/08/2018	Full transfer of permit complete
Regulation 61 Notice sent to the Operator	05/04/2019	Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for Waste Treatment.
Regulation 61 Notice response	23/10/2019	Response received from the operator.
Additional information received	14/09/2020	Additional response following request for further information
Natural Resources Wales initiated variation determined EPR/PP3338CQ/V004	20/05/2021	Varied and consolidated permit issued

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/PP3338CQ

This is the consolidated permit referred to in the variation and consolidation notice for EPR/PP3338CQ/V004 authorising

Carmarthenshire County Council (“the operator”)

whose principal office is

**County Hall
Carmarthen
SA31 1JP**

to operate an installation at

**Phase 1 Effluent Treatment Plant
Nantycaws Landfill Site
Llanddarog Road
Carmarthen
SA32 8BG**

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

Name	Date
Holly Noble	19/05/2021

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 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 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.
- (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2 and
- (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.
- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

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 table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in table schedule 3 S3.1 of a substance listed in schedule 3 table S3.1 shall not exceed the relevant limit in table S3.2.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 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 table S3.1
- 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 table S3.1 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 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production / treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

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

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

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

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

4.3 Notifications

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

- (i) inform Natural Resources Wales,
- (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
- (iii) take the measures necessary to prevent further possible incidents or accidents;

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

- (i) inform Natural Resources Wales, and
- (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
Where the operator is a registered company:
 - (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
 Where the operator is a corporate body other than a registered company:
 - (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
 In any other case:
 - (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) Natural Resources Wales shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 Natural Resources Wales shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, Natural Resources Wales shall be notified within one month of:
 - (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately” in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A1	S5.4 A1 (a)(i)	Storage and treatment of leachate in a facility with a capacity of over 50 tonnes per day D8: Biological treatment of waste	Leachate arising from the closed part of Nantycaws Landfill. Waste types as specified in Table S2.2
Directly Associated Activity			
A2	Water discharges to controlled waters	Discharges of treated leachate from the leachate treatment plant	From leachate treatment plant to point of entry to controlled waters

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Annex 3b 'Nantycaws Lagoon Level Control Diagram', Annex 3c 'Nantycaws V-Notch Detail', and Annex 6b 'Daily Check Sheet' of the application document	22/02/12
Application	Annex 6a 'Leachate Treatment Plant Report (revised issue 2, dated 12 April 2012)'	17/04/12
Response to Schedule 5 Notice dated 25/04/12	Response to Schedule 5 Notice 'Nant y Caws Landfill Site' (dated 9 May 2012) and Drawing Nos C3158-00, Rev B (Nantycaws Leachate Treatment Plant General Layout), C3158-01, Rev A (Nantycaws Leachate Treatment Plant Below Ground Tanks), C3158-02, Rev B (Nantycaws Leachate Treatment Plant Base Pad Details)	09/05/12
Response to query dated 20/09/12	Pollution prevention measures associated with tankering	20/09/12
Report 1 – Proposed changes	All	16/10/14
Report 2 – Permit variation: Environmental Risk Assessment	Excluding section 4	16/10/14
Letter in response to more information needed email – reference 1372lt1	All	21/11/14

Table S1.2 Operating techniques

Description	Parts	Date Received
Response to regulation 61(1) Notice – request for information dated 05/04/2019 detailing how the Operator will comply with the BAT conclusions for Waste Treatment, under Directive 2010/75/EU of the European Parliament and of the Council	All	23/10/2019
Additional information for regulation 61(1) Notice	All	14/09/2020

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC1	The operator shall install a flow proportional sampler at the discharge point to Afon Bantwen sufficient to undertake flow-proportional sampling in accordance with the Environment Agency's Technical Guidance Note M18 (May 2012).	Complete CAR 24 April 2013 Report ID 5114
IC2	The operator shall that a permanent impervious and suitably bunded area is constructed for the reception of road tankers for the transfer of leachate. The operator shall ensure that the bunding shall fully enclose any area in which spillage may occur during loading / offloading. The bund shall be constructed in a manner that will permit any spillage to be immediately intercepted and held safely until measures are implemented in accordance with emergency planning provisions.	Complete CAR 24 April 2013 Report ID 5114
IC3	The operator shall provide a written report demonstrating that installed engineered containment systems meet the following criteria: 1. All bunded areas have a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater. 2. All connections and fill points should be within the bunded area and no pipework penetrates the bund wall. 3. The integrity of the lining systems installed within the lagoons are free from damage that may affect their integrity. Should the report identify that any of the criteria are not met, an action plan to ensure compliance with the above criteria shall also be provided.	Complete CAR 24 April 2013 Report ID 5114
IC4	Regarding the discharge of effluent during a storm event via W1 the Operator shall provide the following: • Details of the expected frequency of storm discharge events based on previous years monitoring • Based on previous years monitoring, suggest flow rates which could be considered to indicate the start and end of a storm event • Provide modelling to demonstrate that the requested limits for a storm event would not have a negative impact upon water quality of the receiving water body • The Operator shall design and provide details of a recording system to record the frequency and duration of storm events The above will be submitted in writing to Natural Resources Wales for approval. Once approved the Operator shall define storm events and implement the recording system as agreed.	31/07/2021

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC5	The operator shall submit to Natural Resources Wales a written procedure(s) describing how they intend to meet the following BAT requirements in accordance with requirements specified within BAT Conclusion of the Waste Treatment BREF Document (EU 2018): • BAT 1 Environment Management System • BAT 21 Emissions from Accidents and Incidents • BAT 23 Energy Efficiency	17 February 2022 or 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 effluent treatment plant

Maximum quantity	36,500 m ³ per annum
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 07	landfill leachate
19 07 03	landfill leachate other than those mentioned in 19 07 02

Schedule 3(a) – Emissions and monitoring effective until 16 August 2022

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on site plan in schedule 7 emission to Afon Bantwen	Effluent Treatment plant	Ammonium (N-NH ₄)	4.0 mg/L ^{Note 1}	Spot sample	Twice per week, no two within the same day (on-site test) Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		pH	6 – 9	Spot sample	Twice per week, no two within the same day (on-site test) Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Total suspended solids	30 mg/L	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		BOD	20 mg/L	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Iron	3.0 mg/L	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
		COD	No limit set	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Total daily volume of discharge	250 m ³ /day	24-hour total	Continuous	MCERTS self-monitoring of effluent flow scheme

Note 1: Limit may be increased during storm events as agreed in writing with Natural Resources Wales following completion of Improvement Condition IC4

Table S3.2 Annual limits

Substance	Medium	Limit (including unit)
Total suspended solids	Water	1,095 kg in a year
Ammonium	Water	146 kg in a year
Iron	Water	28 kg in a year

Schedule 3 (b) – Emissions and monitoring effective from 17 August 2022

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on site plan in schedule 7 emission to Afon Bantwen	Effluent Treatment plant	Ammonium (N-NH ₄)	4.0 mg/L ^{Note 1}	Spot sample	Twice per week, no two within the same day (on-site test) Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		pH	6 – 9	Spot sample	Twice per week, no two within the same day (on-site test) Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Total suspended solids	30 mg/L	24-hour flow proportional composite	Once per month	EN 872
		BOD	20 mg/L	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Iron	3.0 mg/L	Spot sample	Once per month (laboratory analysis)	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		COD	180 mg/L	24-hour flow proportional composite	Once per month	As per the Technical Guidance Note M18 – Monitoring of discharges to Water and Sewer
		Total nitrogen	25 mg/L	24-hour flow proportional composite	Once per month	EN 12260 or EN ISO 19905-1

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
		Total phosphorus	2 mg/L	24-hour flow proportional composite	Once per month	EN ISO 15681-1 or EN ISO 15681-2 or EN ISO 6878 or EN ISO 11885
		Total daily volume of discharge	250 m ³ /day	24-hour total	Continuous	MCERTS self-monitoring of effluent flow scheme

Note 1: Limit may be increased during storm events as agreed in writing with Natural Resources Wales following completion of Improvement Condition IC4

Table S3.2 Annual limits

Substance	Medium	Limit (including unit)
Total suspended solids	Water	1,095 kg in a year
Ammonium	Water	146 kg in a year
Iron	Water	28 kg in a year

Schedule 4 (a) – Reporting until 16 August 2022

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 water Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July

Table S4.2: Annual production/treatment

Parameter	Units
-	-

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Water and Land	Form water 1 or other form as agreed in writing by Natural Resources Wales	12/04/2016
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	20/09/2012
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 4 (b) – Reporting effective from 17 August 2022

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 water Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July

Table S4.2: Annual production/treatment

Parameter	Units
Total amount of waste treated	m ³

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh
Water usage	Annually	m ³
Generation of residues	Annually	tonnes
Generation of wastewater	Annually	m ³

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Water and Land	Form water 1 or other form as agreed in writing by Natural Resources Wales	17/08/2022
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	17/08/2022
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	17/08/2022
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	17/08/2022
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.

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

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

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

“disposal” or “D” 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.

“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.

“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.

“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 property” has the meaning in Annex III of the Waste Framework Directive

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

“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.

“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

“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

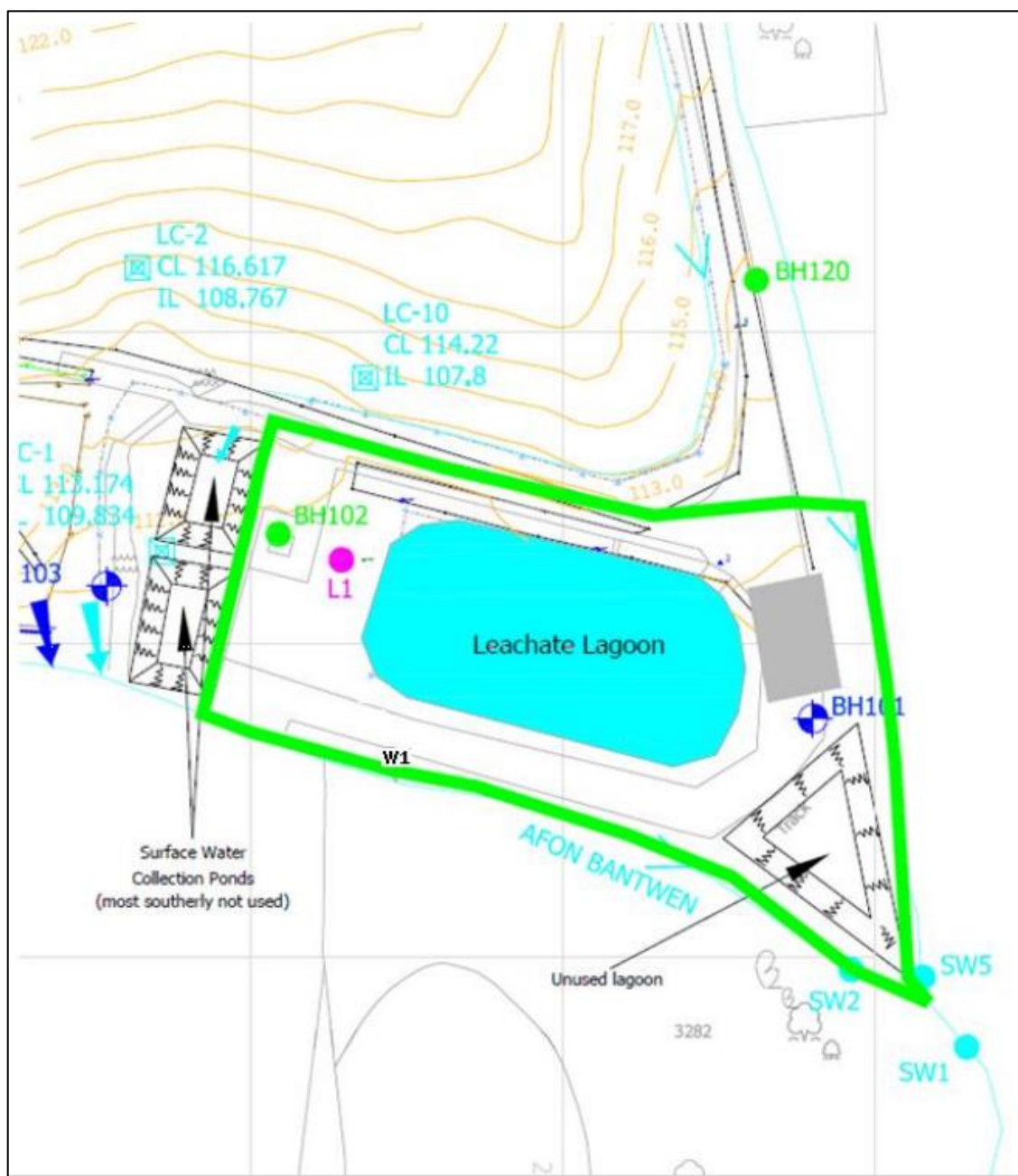
"year" means calendar year ending 31 December.

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



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