Compliance Assessment Report CAR_NRW0041225

Permit being assessed: AB3093CA.
For: Tremorfa Anaerobic Digestion Facility, held by Welsh Water Organic Energy (Cardiff) Limited
At: Tide Fields Road, Tremorfa, Cardiff, CF24 5SB.

Type of assessment carried out: Report/Data Review, Reason: Routine.
On 31/12/2022.
Parts of permit assessed: Annual Returns

NRW Lead Officer: Lewis Evans.
Report sent to: Siobhan O'Leary-Johns, Organic Waste Specialist on 17/02/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	
A1 - Specified by permit	C3 Minor (Suspended)	2.4.1

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
1	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
A1	Provide sufficient samples to complete the Priority Hazardous Pollutants.	26/05/2023

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Welsh Water Organic Energy (WWOE)

Permit Reference: EPR/AB3093CA

The purpose of this compliance assessment report (CAR) is to assess the annual returns, quarterly waster returns that WWOE submit to Natural Resources Wales (NRW) in the 2022 year.

Waste Returns were submitted within the time period specified in the permit and annual reports were also submitted on the 31st of January 2022.

Air Emissions

Air emission testing was carried on the 15th of July 2022.

Emission Point	Parameter	Limit Value	Result	Sample Date & Time
A2	Particulate Matter PM_{10}	No Limit	0.76	15/07/22 12:38 – 13:38
A2	Total VOC's	1000mg/m^3	758.95	15/07/22 12:38 – 13:38
A2	Carbon Monoxide	1400 mg/m^3	808.46	15/07/22 12:38 – 13:38
A2	Sulphur Dioxide	350 mg/m^3	10.93	15/07/22 12:38 – 13:38
A2	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	469.26	15/07/22 12:38 – 13:38
A5	Carbon monoxide	50 mg/m^3	N/A – in operation LT 10% of the year	15/07/22 12:38 – 13:38
A5	Total VOC's	10 mg/m^3	N/A – in operation LT 10% of the year	15/07/22 12:38 – 13:38
A5	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	N/A – in operation LT 10% of the year	15/07/22 12:38 – 13:38

All recorded values were within the permitted limits.

Water Usage

Water usage on site was 15,625m^3 for the year.

Waste Returns

Accepted and compliant

Performance Reporting

Parameter	Units
Power Output – Electricity	8090.5MWh
Energy Efficiency	36.32% MWh/m^3 Biogas
Electrical Energy – Exported to DCWW/Cardiff East	6,912.9MWh
Electrical Energy – Drawn from the grid	265.5MWh
Operational running time of the flare	Hours 538 (6.14%)
Amount of biogas combusted in the CHP unit per day	9240 m3/day – daily average through CHP
Biogas generated	3,856,927 m3
Total waste treated	24,209.96 tonnes
Solid digestate	425.76 tonnes
Liquid digestate	23,407.25 tonnes

During the 2022 year, the site has had the Combined Heat and Power (CHP) engine undergoing a E60 service and the de-packaging unit being replaced which meant an eight-week period of downtime and contingency for the site. During this downtime the site was unable to generate as much power which resulted in an increase import from the grid and an increase to the flaring, up from 222hours in 2021 to 538hours in 2022. However, this is still below the 10% (876 hours) running time before monitoring has to be done on the flare.

The site has a standby boiler on site which will be used on site for when the main CHP engine will be undergoing service or in failure. Once the variation will be issued the commissioning of this will take place.

Three incidents of contingency have occurred during 2022, one being issues with the CHP engine which resulted in pasteurisation issues, the second was due to issues with the de-packaging unit at the front end of the process, this follows by the third with the de-packaging unit being replaced while the CHP was undergoing a service.

Site is looking to reduce the volumes of reject material on site.

Waste Treatment BREF

Welsh Water Organic Energy (WWOE) Improvement Conditions

Welsh Water Organic Energy's permit was varied following the publication of the revised Best Available Techniques (BAT) Reference Documents (BREF) for Waste Treatment. The associated BAT conclusions to this document were published on 17 August 2018 in the Official Journal of the European Union. This variation incorporates the changes required by the Industrial Emissions Directive following a statutory review of permits in the Waste Treatment sector. These include the amendment of the wording of several permit conditions relating to notifications, changes to emissions limits and monitoring requirements. Based on the information provided in the Regulation 61(1) response, Natural Resources Wales (NRW) set a series of improvement conditions for WWOE to complete. These conditions and their responses are set out below.

Improvement Condition 1

In accordance with the requirements set out within BAT 3 of the Waste Treatment BREF Document (EU 2018), the operator shall submit for approval in writing by Natural Resources Wales, a screening assessment considering channelled emissions to air from the biofilter (open and closed biofilters), and confirm if sources are within 250 metres of a sensitive receptor in accordance with 'M9: environmental monitoring of bioaerosols at regulated facilities'.

WWOE Response:
WWOE produced a report in accordance with *'M9: environmental monitoring of bioaerosols at regulated facilities'.* However, as stated in Box5.1 in M9: Environmental monitoring of bioaerosols at regulated facilities states "We would not normally regard a place where people are likely to be present for less than 6 hours at one time as being a sensitive receptor." From this, people that work in the facilities that surround your site are at risk of being exposed for more than 6 hours a day from the biofilter emissions and therefore a site specific bioaerosol risk assessment (SSBRA) will be required. WWOE would therefore carryout IC2.

NRW are satisfied that the requirements of the Improvement Condition have been met.

Improvement Condition 2

Upon completion of IC1, if confirmed that there are nearest sensitive receptors within 250 meters of sources of bioaerosol emissions, the Operator is required to complete and submit for approval in writing by Natural Resources Wales a site specific bioaerosol risk assessment (SSBRA).

WWOE Response:
WWOE submitted both a SSBRA and a Bioaerosol Report to NRW, and this is now deemed complete.

NRW are satisfied that the requirements of the Improvement Condition have been met.

Improvement Condition 3

The operator shall submit to Natural Resources Wales for approval information to evidence compliance with the following BAT requirements in accordance with requirements specified within BAT Conclusions of the Waste Treatment BREF Document (EU 2018):

BAT 1 - *Implement and adhere to an environmental management system (EMS) that incorporates all of the following features:*

- (VIII) Whole life cycle considerations when designing a new plant;
- (X) Waste stream management;
- (XI) Inventory of waste water & waste gas streams;
- (XII) Residues Management Plan;

WWOE Response:
To satisfy this BAT conclusion WWOE submitted their IMS Management Systems Manual Review Document which lays out the scope of the management system, implementation, responsibilities etc for the site. The document will be reviewed annually to ensure procedures are kept up to date.

NRW are satisfied that the requirements of BAT 1 have been met and consider BAT 1 complete.

BAT 2
In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques described within BAT 2 Table.

WWOE Response:
WWOE submitted the following documents to NRW, which address the BAT conclusion:

- **Part A - waste characterisation and pre-acceptance procedures**
  The food waste plant has the following procedures in place which address this point - WWOE (3) 05 Weighbridge Procedure, WWOE (3) 06 Waste acceptance procedure, WWOE (3) 07 Waste acceptance criteria – Please see attached.
- **Part B** - **implement waste acceptance procedures -** WWOE (3) 06 Waste acceptance procedure – please see attached.
- **Part C - waste tracking system and inventory –** WWOE (3) 05 Weighbridge Procedure and WWOE (3) 06 Waste acceptance procedure
- **Part D - Output quality management system –** The site is PAS110 accredited – WWOE(02) 01 PAS110 Management System Description, provides details on the system that is in place. This is audited externally as required to maintain PAS110 accreditation.
- **Part E - Ensure waste segregation -** The waste accepted consists only of local authority kerbside collections, there is a procedure in place for Rejects management, WWOE (3) 18 – Rejects management, which details the segregation and removal of 3 ABPR material which is stored in the reception hall and digestate fibre which is stored in the separator room.
- **Part F - waste compatibility prior to mixing or blending of waste –** Please refer to procedures WWOE (3) 06 Waste acceptance procedure, WWOE (3) 07 Waste acceptance criteria, WWOE (3) 18 – Rejects management.
- **Part G - Sort incoming solid waste –** The waste accepted consist only of local authority kerbside collections, therefore procedures WWOE (3) 06 Waste acceptance procedure and WWOE (3) 18 – Rejects management provide details who waste is handled on site.

NRW are satisfied that the requirements of BAT 2 have been met and consider BAT 2 complete.

BAT 3

In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the following features:

- *Information about the characteristics of the waste to be treated and the waste treatment processes;*
- *Information about the characteristics of the waste water streams;*
- *Information about the characteristics of the waste gas streams; and*
- *This assessment should specifically consider channelled emissions to air from the biofilter and the potential for bioaerosol releases. If your biofilter (open and closed biofilters) is within 250 metres of a sensitive receptor you are required to undertake and submit a site specific bioaerosol risk assessment and any monitoring must be in line with'M9: environmental monitoring of bioaerosols at regulated facilities'.*

WWOE Response:
Waste accepted to site is kerbside food and kitchen waste collected by two local authorities, which undergoes pre-treatment to sort and remove unsuitable waste and then undergoes Anaerobic Digestion in the treatment process. Previous submission of PAS110 Digestate quality management system details the characteristics of the waste and the treatment process. There is only one point source emission of wastewater to foul sewer. WWOE have submitted sample results from Dŵr Cymru Welsh Water (DCWW). As DCWW only sample 6monthly, WWOE have introduced sampling to supplement the 6monthly sampling. WWOE provided DPM records flow, temperature, gas concentration etc at each treatment process in the DPM logs. Annual stack monitoring is also carried out and reported in the annual returns. WWOE also submitted their SSBRA.

NRW are satisfied that the requirements of BAT 3 have been met and consider BAT 3 complete.

BAT 5

In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.

WWOE Response:
Procedures in place that address the environmental risk of handling and transfer of waste include – WWOE (3) 05 Weighbridge Procedure ,
WWOE (3) 06 Waste acceptance procedure,
WWOE (3) 07 Waste acceptance criteria,
WWOE (3) 18 – Rejects management which have been previously provided –
also attached is WWOE (3)15 Spillage procedure which details how any spillages are handled.

NRW are satisfied that the requirements of BAT 5 have been met and consider BAT 5 complete.

BAT 6

For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the

inlet to the final treatment, at the point where the emission leaves the installation).

WWOE Response:
See below on WWOE emissions to sewer.

NRW are satisfied that the requirements of BAT 6 have been met and consider BAT 6 complete.

BAT 7
BAT is to monitor emissions to water with at least the frequency given within BAT 7 Table, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.

WWOE Response:
In WWOE's permit, they have two emission points which are a surface water to public sewer and a foul sewer. The trade effluent discharge consent is regulated by Dwr Cymru Welsh Water (DCWW) and is monitored by them. The surface water discharge from the bund is from rainwater harvesting for on site use. When it is full then water is diverted via an overflow to the surface water discharge. The foul sewer discharge is again managed by DCWW which WWOE have an agreement with. Trade effluent is monitored by DCWW on a 6 monthly basis as they class the discharge 'low' and with low volumes. WWOE have implemented quarterly monitoring to supplement the trade effluent sampling.

BAT 14
In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques described within BAT 14 Table.

WWOE Response:
the overall operation of the receiving, storing and processing of the waste is carried out within the food hall building, and all treatment process tanks are covered and contained. WWOE Odour Management plant (previously submitted to NRW) provides details on each of the process steps, containment and operation of the biofilter. The OMP covers and supports the requirements of BAT 14 as stipulated in the table relating to sources of emissions, containment, equipment and maintenance of the plant.
The site also has in place good housekeeping and daily checks of the whole site – entrance yard and roadway in – any spillages or litter is picked up daily.

NRW are satisfied that the requirements of BAT 14 have been met and consider BAT 14 complete.

BAT 19
In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques described within BAT 19 Table.

WWOE Response:

a. **Water Management** – Potable water supply is recorded and monitored and unusual

activity investigated. A rain water harvesting system is in place and all waster used for hosing down/clean up is all captured and stored in a dilution tank for use in the process. Future planned action is to install a liquid waste tank to reduce the requirement for portable water to be used in the process.

b. **Water Recirculation** – Rain water harvesting system and all drainage in the food hall directed to dilution tank, and water returned from Odour control unit to dilution tank**.**
c. **Impermeable** surface – The large bunded area whare the process tanks are located is impermeable and all clean surface water is directed to the rain harvesting system, and contaminated water there is an agreement with DCWW to dispose of to sewer, all runoff in the food hall is captured and directed to the dilution tank.
d. **Techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels** – Minimal waste water is generated and is used within the process, overflow from the dilution tank is discharged to sewer as trade effluent. The process area that houses the bioreactors/pasteurises is bunded and spillages can be contained (see spillage procedure).
e. **Roofing of waste storage and treatment areas –** The waste storage and processing area is contained in a sealed/roofed building
f. **Segregation of water streams –** Clean surface water is contained and used in the process, washdown water is also captured and stored in a dilution tank.
g. **Adequate drainage infrastructure –** Please see drainage plan – majority of surface water is captured and used in the process – if not required there is an overflow from the rain harvesting tank to surface water drainage. Overflow from the dilution tank which contains contaminated washdown water and spent water from the odour control unit is discharge to sewer under a trade effluent consent
h. **Design and maintenance provisions to allow detection and repair of leaks –** The main process tanks – bioreactors/pasteurisers are located in the sites bunded area. The majority of pipework, pumps, sumps is located aboveground within the bunded area. There are level sensors located in the bund area which detect leeks and generate alarms which go direct to notifying the team and cover by an on call system out of hours.
i. **Appropriate buffer storage capacity –** generation of waste water from the process is generally low, leachate and washdown water from the food hall and spent water from the odour control unit. All contaminated water is captured and stored in the dilution tank and used in the AD treatment process, overflow from the dilution tank is discharged to foul sewer under a trade effluent consent. This is low in volume and monitored by DCWW.

NRW are satisfied that the requirements of BAT 19 have been met and consider BAT 19 complete.

BAT 20

In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques described within BAT 20 Table.

WWOE Response:

Minimal wastewater is generated within the process. The main contribution is from the food hall area - leachate and runoff from the process area, wash down from cleaning in the area

and spent water from the odour control unit. The wastewater that is generated is captured in a dilution tank and is used in the AD process. Wastewater that is not used within the process is discharged to sewer under a trade effluent consent regulated by DCWW. The wastewater is organic in nature – as it is generated from food processing and therefore suitable treatment of it is via a biological wastewater treatment plant. The receiving wastewater treatment works is Cardiff East WwTW operated by DCWW. The treatment works receives domestic sewage and trade effluent generated from commercial industry. The biological treatment process on site is activated sludge, which biologically breaks down the contaminants. To ensure the discharge from the food waste plant is suitable and within acceptable parameters DCWW samples and regulates the discharge.

NRW are satisfied that the requirements of BAT 20 have been met and consider BAT 20 complete.

BAT 21

In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques described within BAT 21 Table.

WWOE Response:

a. **Protection measures – malevolent acts, fire/explosion, emergency situation** – please see attached WWOE (3) 38 Out of Hours security procedure, WWOE (3) Emergency response procedure, WWOE (03) 03 Fire Evacuation Procedure
b. **Management of incidental/accidental emissions -** WWOE (3) Emergency response procedure, WWOE (3) 15 Spillage procedure
c. **Incident/accident registration and assessment system –** WWOE participated in the wider DCWW electronic assure system that logs, reports and analyses all aspects of H&S incidents, including safety conversations, incidents, near misses**,** Hazard interventions. These involve logging the details of incidents, who was involved, resulting actions and internally analysed as a company to inform H&S issues. Reports are generated for each part of the business to assess performance and actions that have arose. Attached is a summary of the Commercial HSW update Feb 2022 – which included WWOE.

NRW are satisfied that the requirements of BAT 21 have been met and consider BAT 21 complete.

BAT 22

In order to use materials efficiently, BAT is to substitute materials with waste.

WWOE Response:
Inherently the process uses waste material to produce gas and generate electricity, and a digestate product that can be used for land conditioning. WWOE will be varying their permit to add a liquid waste storage tank, this will significantly reduce the use of potable water in the process.

NRW are satisfied that the requirements of BAT 22 have been met and consider BAT 22 complete.

BAT 23
Energy Efficiency Plan and Energy Balance Record

WWOE Response:
WWOE submitted the sites Sustainability and Carbon management plan, the methodology statement relating to it and the latest annual performance report. Actions detailed in this plan will help reduce the carbon impact, and therefore support the Authority in mitigating climate change, the Contractor's Solution. The objective of the Contractor's Solution is to divert Contracted Waste from landfill and to mitigate the Project's impact on health and the environment.

NRW are satisfied that the requirements of BAT 23 have been met and consider BAT 23 complete.

BAT 24
Maximise the reuse of packaging as part of a Residues Management Plan.

WWOE Response:
The food wate arrives to site in bulk refuse trucks, and is sorted and segregated. Rejects and material not suitable for processing through the AD plant is removed from site – again by bulk removal to another suitable waste disposal site for processing and/or incineration. Due to the nature of the operation there is very minimal 'packaging' and not of a nature to be reused. Other deliveries to site such as chemicals, the supplier removes the packaging and it is returned for further use, for example spent IBC's of ferric.

NRW are satisfied that the requirements of BAT 24 have been met and consider BAT 24 complete.

BAT 33
In order to reduce odour emissions and to improve the overall environmental performance, by selecting the waste input (to ensure its suitability for biological treatment).

WWOE Response:
In reference to carrying out the pre-acceptance, acceptance and sorting of the waste input (see BAT 2) so as to ensure the suitability of the waste input for the waste treatment, e.g. in terms of nutrient balance, moisture or toxic compounds which may reduce the biological activity. As previously submitted, Site procedures , WWOE (3) 06 Waste acceptance procedure, WWOE (3) 07 Waste acceptance criteria, WWOE(02) 01 PAS110 Management System Description – providing details on assessing the waste to ensure it is suitable for treatment through the AD process and will not impact the treatment so as to cause issues that may result in odour issues.

NRW are satisfied that the requirements of BAT 33 have been met and consider BAT 33 complete.

BAT 35
In order to reduce the generation of waste water and to reduce water usage, BAT is to use all of the techniques described within BAT 35 Table.

WWOE Response:

A. **Segregation of water streams** – Surface water is collected and used within the process – via the rain water harvesting system. Overflow from the system is discharge to surface water sewer. Waste water generated from washdown water, runoff from the food hall and spent water from the odour control unit is captured via internal drainage and directed to the dilution tank for use within the process. Overflow from the dilution tank is discharge to foul sewer under a trade effluent agreement.
B. **Water Recirculation** – as describe above both surface water and waste water generated from the process is utilised through the AD treatment process.
C. **Minimisation of the generation of leachate** - food waste is stored and processed with in a covered building with automatic doors, significantly eliminating rainwater adding to the generation of leachate from the process.

NRW are satisfied that the requirements of BAT 24 have been met and consider BAT 24 complete.

BAT 38

Reduce emissions to air and to improve the overall environmental performance. The Operator shall submit for written approval a methodology for meeting the process parameters listed in Schedule 3b Table S3.3, as per BAT 38 for the anaerobic treatment of waste. The methodology shall identify each of the process parameters and detail the frequency and techniques in place to record the data. Where a process parameter cannot be monitored justification should be provided and/or a suitable alternative proposed. The methodology should include trigger levels for each of the parameters with associated procedures in place if trigger levels are exceeded.

WWOE Response:
The process and monitoring that covers BAT 38 and specifically Table S3.3 in schedule 3b of the permit is as follows -

- **Biofilter** – A visual inspection of the biofilter media is a weekly task completed alongside a check on the levels of nutrients in the dosing tank. DPM of our daily readings for pressure, temperature and flow is attached (biofilter summary). These are constantly monitored by the SCADA and we can produce historical trends as required. Also, section 5.2 of the WWOE (3) 32 Odour Management Plan details a visual monthly check of the biofilter media for moisture content.
- **Digester feed** – Please see attached DMP for reception tank (biogas monitoring) - pH and TS% monitored daily
- **Biogas from digesters** - Please see attached DMP for reception tank - monitoring key parameters and gases
- **Digesters, Storage tanks and waste reception building –** please see attached Biogas monitoring DPM, also with regarding odour monitoring - OMP in place.
- **Digestate -** WWOE (2) 01 PAS110 Digestate Quality monitoring system description – which details the quality system and monitoring for the digestate output and in general the whole Anaerobic digestion process. PAS110 is externally audited for accreditation to be maintained.

Onsite lab equipment is supplied by Hach and maintained and serviced – please see

attached the last site report and details of the AT1000 system.
In situ monitoring of gases from Tank gas analysers – maintenance/calibration is carried out 6 monthly.
The above summary and attached further information supports the requirements of BAT 38 of maintaining, in particular insitu/automatic monitoring to maintain optimum digester treatment and alarm if parameters are out of range so the site can take appropriate action.

WWOE also submitted table 3.3 in the permit with trigger limits.

NRW are satisfied that the requirements of BAT 38 have been met and consider BAT 38 complete.

Improvement Condition 4
The Operator shall complete and submit a Phase 1 screening test report for priority hazardous pollutants and any other relevant priority hazardous substances discharged to sewer. For any substance which is not screened out by the screening tests, further modelling (as described in the risk assessment guidance "Surface water pollution risk assessment for your environmental permit") should be undertaken, and the results of the modelling submitted to NRW for approval. The Operator shall submit for written approval a methodology for the appropriate monitoring requirements for discharges to sewer. Where a process parameter cannot be monitored justification should be provided and/or a suitable alternative proposed. The methodology should include trigger levels for each of the parameters with associated procedures in place if trigger levels are exceeded.

Due to the extended dry periods experienced in 2022, WWOE have been unable to obtain a sufficient number of samples required to undertake a surface water pollution risk assessment. Consequently, WWOE have been given more time to complete this improvement condition.

ACTION 1: Please provide a response by the **26th of May 2023.**

Consequently, a noncompliance category 3 score is being applied against permit condition 2.4.1. since the BATC implementation date in August has now passed. However, NRW will suspend this score since WWOE are taking steps to satisfy improvement condition 4 requirements. If WWOE fail to complete the required work the suspension maybe lifted, and the score applied.
Please let me know if timescales are achievable.

Update 16th of February 2023 from WWOE:
"Just to give you an update – as you are probably aware, from the end of last year to the beginning of this this year the FWP was not fully operational for most of the time – major services were taking place on the CHP and other plant and the installation of the new 'front' end.
The work is just about completed and there have been some changes that have impacted parts of the operation including discharge to sewer. Prior the work carried out discharge was minimal and intermittent – approximately LT 15 m3 per week – recently this has reduced further, the site has not discharged to sewer during the work being carried out - minimal discharge was generated and used within the process and at present all recycled water is being used in the process. So currently no discharge to sewer is taking place. We are monitoring the water balance through the site and aiming to continue to use all wastewater

generated through the process. We will likely need to keep the discharge to sewer point for emergency overflow if anything happens within the system and we will talk to DCWW regarding this.
I struggled previously to sample due to the very low and intermittent volume discharged and at present with no discharge I have not been able to take any samples for the analysis for completing the H1."

NRW Response: A meeting will be set up to discuss testing once operation of the plant has returned to normal and sufficient discharge volumes are available

Improvement Condition 5

The operator shall submit to Natural Resources Wales for approval an updated Site Boundary and Layout Plan clearly showing all points source emissions from the site.

WWOE Response:
WWOE submitted an updated Site Boundary and Layout plan to NRW. Also included in the email was the updated S3.2 Table.

NRW are satisfied that the requirements of the Improvement Condition have been met.

END

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?
In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):

A: Permitted activities
- A1 Specified by permit

B: Infrastructure
- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management
- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management
- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions
- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity
- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting
- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency
- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response
Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice
You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line
If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?
If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards
We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.