

Compliance Assessment Report CAR_NRW0041214

Permit being assessed: FP3232KG.

For: Cardiff East Wastewater Treatment Works CHP Facility, held by Dwr Cymru

Cyfyngedig

At: Dwr Cymru Welsh Water, Tide Fields Road, Rover Way, Cardiff, Cardiff, CF24 2RX.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 30/12/2022.

Parts of permit assessed: Annual Returns

NRW Lead Officer: Lewis Evans.

Report sent to: Keith Harris, AD Performance Manager on 17/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.2.2 (a)
E1 - Emissions - Air	C3 Minor	3.1.2
E1 - Emissions - Air	C3 Minor	3.5.1(a)
C2 - General Management - Management system and operating procedures	C3 Minor	1.1.1

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

Total number of non-compliances recorded	Total non-compliance score
4	12.1

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
G4	Improve management systems at site to ensure annual returns are submitted on time.	12/04/2023
E1	Submit Part B to NRW as soon as possible.	23/03/2023
E1	Please ensure testing is completed within the time period set out in the permit.	12/04/2023
C2	Please update the sites EMS to ensure testing and results are submitted to NRW within the timescales set out in the permit.	12/04/2023

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

Dŵr Cymru Welsh Water Cardiff East Wastewater Treatment Works CHP Facility

Permit Reference: EPR-FP3232KG

Dŵr Cymru Welsh Water (DCWW) submitted their Annual Air emissions, Water, Energy and Performance indicators to Natural Resources Wales (NRW) on the 2nd of February 2023. The deadline for submitting the returns is the 31st of January 2023. Since the 31st of January is an established compliance date there should be no excuse for missing this deadline. **As the returns were submitted after this deadline, a Category 4 noncompliance will be issued under permit condition 4.2.2 (a).**

Air Emissions

The table below are the results submitted by DCWW. Text in bold indicates exceedances/breaches which will be explained further down in the form.

Emission Point	Parameter	Limit	Result	Date and Sample Time
A1	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	270.42mg/m ³	17/01/2023 13:20-14:20
A1	Carbon Monoxide	1100mg/m ³	1004.9mg/m ³	17/01/2023 13:20-14:20
A1	Sulphur Dioxide	340mg/m ³	44.21mg/m ³	17/01/2023 13:20-14:20
A2	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	291.2mg/m ³	17/01/2023 15:00 – 16:00
A2	Carbon Monoxide	1100mg/m ³	1160.78mg/m³	17/01/2023 15:00 – 16:00
A2	Sulphur Dioxide	340mg/m ³	47.92mg/m ³	17/01/2023 15:00 – 16:00

A3	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	424.55mg/m ³	14/12/2022 16:00 – 17:00
A3	Carbon Monoxide	1100mg/m ³	651.06mg/m ³	14/12/2022 16:00 – 17:00
A3	Sulphur Dioxide	340mg/m ³	32.1mg/m ³	14/12/2022 16:26 – 17:00

The annual air emission testing received from DCWW displays a number of failures.

Carbon Monoxide Exceedance

The Carbon Monoxide parameter from the A2 stack has breached the emission limit value of 1100mg/m³ with a result of 1160.78mg/m³. DCWW had notified NRW through a telephone call which was trailed by a schedule 5 notification following the breach. DCWW explained that gas emission testing had been carried out on engine number 2 (emission point A2) and that the limits for CO had been breached. They go on further to explain that retesting of the engines will take place as early as possible to confirm that the engines have returned to normal operating parameters. Early investigations highlight a slight pressure drop across the intercooler. This may have caused a blockage which could contribute to the incomplete combustion that raised the CO levels. DCWW have contacted their engine maintenance contractors to install a new intercooler in the engine. DCWW state that as NO_x was well within limits which shows that once the combustion efficiency is rectified the engine should run comfortably within limits. NRW are still waiting to receive the Part B of the schedule 5.

Action: Please submit the Part B to NRW as soon as possible.

As a result of the exceedance in the annual testing done for the Carbon Monoxide emission, and the limited impact on the environment, a Category 3 Noncompliance will be applied against the permit condition 3.1.2.

Air Emission Testing

Emission points A1 and A2 were tested on the 17th of January 2023 which was outside the reporting period for 2022. Also, the duration for testing Sulphur Dioxide was only 34minutes opposed to the hourly mean reference period set out in the permit. **Action: Please ensure testing is done for the full period that is set out in the environmental permit.**

DCWW know that the emission testing is required as part of their permit and to be completed within the reporting year. Testing late on in the year will pose a risk to sites as if there are any issues found on the engines or if there are any other delays which may hinder testing to be completed, may result in the testing companies unable to carry out the required testing within the period as set out in the environmental permit, which has resulted in the noncompliance DCWW have received.

Consequently, due to the failure of testing the engines within the specific period set out in the permit and the limited impact on the environment a Category 3 Noncompliance will be applied against the permit condition 3.5.1 (a).

Permit condition 1.1.1 (a) states *“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;”*. Over the last two years DCWW have failed to report their full air emissions to NRW due to engine issues on site. As the site undertake their annual monitoring late in the year, any issues that are found on site during testing, decrease the chance of this testing being completed by the 31st of December. As explained above DCWW need to review their management plans especially regarding the scheduling of the annual emission testing on site.

ACTION: Please update the sites EMS to ensure testing and results are submitted to NRW within the timescales set out in the permit.

Consequently, as this is a common issue running at this site a Category 3 score will be applied against permit condition 1.1.1 (a) for the failing to manage the testing schedule which demonstrates environmental protection.

As a consequence of these repeated failures NRW intend to undertake an EMS audit later in the year. NRW need to be confident that the current procedures and management systems, including planned preventative maintenance, are adequate and being implemented in a way that continuously *identifies and minimises risks of pollution*.

Reporting Forms

Water 1

Total Water usage on site was 26,115.12m³ in 2022. This is down almost half from the previous year at 51,331m³.

Energy 1

Electricity usage on site was 47,793.29MWh when converted to Primary Energy. Natural Gas using a further 23,125.95MWh of energy. There was no usage of Gas Oil or Recovered Fuel Oil.

Performance 1

Parameter	Result
Power output - heat	20,835.74MWh
Power output - electricity	18,675.66MWh
Energy Efficiency (MWh/m ³)	0.004 MWh/m ³ biogas
Electrical energy exported from the grid (MWh)	647.09 MWh
Electrical energy drawn from the grid (MWh)	19,913.87 MWh
Water Usage	26,115.87 m ³
Water Generated	0 m ³ /MWh
Energy usage	
Generation of Residues (tonnes)	12,442 tonnes
Generation of wastewater (m ³)	9,049,065.98m ³
Operational time of waste gas burner (emergency flare) (% of operational time)	9.49% of operational time
Total raw material used (tonnes)	24,396.09 tonnes

The site has had generation hindered towards the tail end of 2022 and the beginning of 2023 due to a third VCB. During this time, the site carried out a service rebuild of one of the CHP engines which had been de-rated due to the effects of high siloxanes from the Covid-19 pandemic. This has allowed the engine to be recommissioned to full power adding to site capacity and efficiency. The site does not have a backup circuit breaker on site to mitigate any downtime that may occur.

Waste Treatment BREF

Dŵr Cymru Welsh Water (DCWW) Improvement Conditions

Dŵr Cymru Welsh Water'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 out a number of BAT Conclusions within Improvement Conditions set out in the permit. These conditions and their responses are set out below.

Improvement Condition 1

The operator shall submit to Natural Resources Wales for written approval, information to evidence compliance with the following BAT Conclusions, in accordance with requirements specified within 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:

- *(IV)(h) Emergency preparedness & response*
- *(VII) Following development of cleaner technologies;*
- *(VIII) Whole life cycle considerations when designing a new plant;*
- *(IX) Regular sectoral bench marking;*
- *(X) Waste stream management;*
- *(XI) Inventory of waste water & waste gas streams;*
- *(XII) Residues Management Plan;*
- *(XIII) Accident Management Plan.*

DCWW Response:

DCWW are accredited to ISO14001. They had also submitted their IMS Integrated Management Systems document and submitted further associated documents which link together with the IMS. The documents will be reviewed 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.

DCWW Response:

DCWW operate to the Biosolids Assurance Scheme (BAS). Several documents have been submitted to indicate DCWW follow the techniques described in the table within BAT 2.

BAF 001 - Source Material Risk Assessment Overview.pdf, BAF 002 - Category A Domestic Wastewater & Industrial Wastewater Risk Identification & Risk Control Form, BAF 003 - Category B Septic Tank Material & Water Treatment Sludges Risk Assessment & Risk Control Form, BAF 004 - Category C Feedstock Material Step 1 Pre-Acceptance Assessment Form, BAF 005 - Category C Feedstock Material Step 2 Risk Identification And Risk Control Form, BAF 006 - BAS Sample Event Log.pdf, Cardiff Advanced Digester Sludge Treatment Facility HACCP Plan.

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*

DCWW Response:

DCWW follow their BAF 002- Domestic Wastewater & Industrial Wastewater (Category A)

Risk Assessment & Risk Control Form.pdf and BAF 003 - Category B Septic Tank Material & Water Treatment Sludges Risk Assessment & Risk Control Form.pdf procedures to determine the characteristics of the waste to be treated. BAF 002 also details the information about the characteristics of the waste streams. DCWW provide annual monitoring results to NRW.

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

BAT 4

In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques described within BAT 4 Table.

DCWW Response:

a) Optimised storage location; -

BAS: Ch3. Biosolids Transportation and Storage – England and Wales

b) Adequate storage capacity –

The PR24 driver SUIAR_IMP the construction of adequate and compliant storage facilities and development of alternative sludge treatments and outlets storage and explore new technologies is expected to see this develop to allow for further storage due to Regulation 4(1)(a) (Farming Rules for Water) of The Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations 2018 and The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 with their own volume of Guidance for Farmers and Land Managers – these are in transitional measures at the moment and do not take effect in Wales until January 2023 and August 2024

c) Safe storage operation

Storage on site is covered by BAS: Ch3. Biosolids Transportation and Storage – England and Wales And storage offsite in field heaps on farms is regulated by S3 Waste Exemption: Storing Sludge

d) Separate area for storage & handling of packaged hazardous waste

NA – no hazardous waste enters site – the only EWC code we can accept is 19 08 05 Sludges from treatment of urban waste water which is an AN Absolute Non-Hazardous waste code. Sewage sludge is not packaged. Waste generated on site is processed in line with EN (3) 02 - Waste Management Procedure.docx which covers hazardous waste. These are limited to waste oil and fluorescent bulbs.

NRW are satisfied that the requirements of BAT 4 have been met and consider BAT 4 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.

DCWW Response:

DCWW follow the procedures as set out in BAS: Ch3. Biosolids Transportation and Storage – England and Wales.

Training records for staff are all held on a central system and can be demonstrated during the site visit. In addition under our BAS management system we also have a separate training matrix which can also be demonstrated.

We have also started the journey of implementing an EUSkills Competence Management System and recently LRQA have been appointed as our external auditor. We are on the journey of finalising our policies and procedures ready for our accreditation audit later this year and delivering awareness training which will enhance the skills and competencies of all our team and pull everything we do together in one place, such as training and emergency procedure awareness.

Transfer of sludge waste between sites is covered under WTN and only undertaken by approved framework contractors, the activity is managed by DCWW bioresources team.

All sludge at Cardiff WwTW is either received as liquid waste into the WwTW inlet and logged through JRP loggers which records volume and composition and then retreated through the WwTW or via sludge cake directly into the AAD import facility. Sludge cake received directly into the AAD import facility is recorded over a weighbridge which is also logged on the JRP system and records wet weight of cake coming into site and the origin of where it has come from, spot samples undertaken by operational staff are then used to calculate the dry solids coming into and being processed by the site. Sludge is then processed through the AAD plant and Biosolids are recycled to agriculture which is all tracked again on the JRP weighbridge system as it leaves site and on our stockpile trackers which form part of our BAS management system. All this data is subject to rigorous annual Jacobs Assurance Audits prior to submission to OWFAT for APR reporting. Attach waste transfer procedure and ENF005 internal waste transfer note.

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

BAT 13

Techniques to prevent, or where not practicable reduce odour emissions.

DCWW Response:

We do not use chemicals for odour control because they are recovered to agricultural land. Applicability – “Not applicable if it may hamper the desired output quality.”

NRW are satisfied that the requirements of BAT 13 have been met and consider BAT 13 complete.

BAT 15

BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques described within BAT 15 Table.

DCWW Response:

This includes the provision of a gas recovery system with sufficient capacity and the use of high-integrity relief valves. We utilise all energy produced on site with no export. We generate electricity for the Cardiff WwTW power needs. This system is sized correctly since we only had to flare 2% of the time. If further generation is possible or future possibility for export to grid or injection of biogas to grid then our Energy Team will facilitate this. This includes the provision of a gas recovery system with sufficient capacity and the use of high-integrity relief valves. A new flare has been commissioned recently.

NRW are satisfied that the requirements of BAT 15 have been met and consider BAT 15 complete.

BAT 19 (BAT 19 (d) is covered under IC2)

In order to optimise water consumption, to reduce the volume of wastewater 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.

DCWW Response:

All wastewater is recirculated back to the head of the WwTW for treatment. Final tertiary treated sewage effluent is used in place of potable water used in the CAMBI process, for dilution water, in the cooling system & poly make up. Some site fire hoses are also supplied as such. See **Cardiff Major Flows.pdf**. No uncontaminated surface water (roof water) has been redirected away from sewer since the site would become tide-locked twice each day. As such all roof water also goes straight back to the head of the WwTW.

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.

DCWW Response:

The following documents were submitted to NRW:

Cardiff Environmental Emergency Procedures 2022.pdf

ENF 003 - Testing Emergency Procedures .xlsx

EN (3) 03-Delivery Handling and Storage of Oils and Chemicals.pdf

EN (3) 04 - Environmental Incidents - Near Miss V11.docx

AD(3) 02 - Abnormal Monitoring Results AD Plant Escalation Procedure.doc

ENF 003 - Testing Emergency Procedures .xlsx

DCWW have emergency plans, which were observed during a site visit. This is due to the documents being security marked as confidential but could not be sent over email and to be viewed over teams if required to be audited. DCWW use the Assure system which holds information on any incidents/accidents.

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.

DCWW Response:

In preference to potable water consumption, we utilise final tertiary treated sewage effluent in the CAMBI process, for dilution water, belt press wash water in the cooling system & poly make-up. Some site fire hoses are also supplied as such. See Cardiff Major Flows.pdf

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.

DCWW Response:

Our Welsh Water AMP 7 investment program Energy Plan which we provide to OFWAT. This plan isn't site/facility level but provides the level of improvement that we are targeting as a company and the metrics used to monitor progress. Our 22 strong Energy Team is developing improvement plans for each facility. From an efficiency plan point of view we have a tracker which is summarised into the Power BI report. This covers every asset with an energy need. For energy generation sites (6 AD plants) a weekly flash report is produced.

We undertake a minimum of four yearly Energy Savings Opportunity Scheme audits. Additionally, DCWW measure the efficiency of all our CHP engines is tracked and they are currently operating around 30% electrically efficient which is considered efficient operation. Key markers like oil life monitoring are also used and are showing the site is performing acceptably. We continually look for opportunities to improve and have investment available where savings can be gained from more energy efficient equipment on a spend to save basis. DCWW also have an energy optimisation task force whose role is to analyse equipment performance and look at alternative equipment available to highlight other similar opportunities.

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.

DCWW Response:

Minimal amounts of packaging. All sent for recovery in preference to disposal with our current hazardous and non-hazardous waste tender contractor. - Cardboard and pallets go for recycling; IBCs go for reuse although we have been trialling bagged Poly in reference to IBCs. See Cardiff Facility Environmental Management Plan 2021.pdf

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

BAT 34

In order to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H₂S and NH₃, BAT is to use one or a combination of the techniques described within BAT 34 Table.

DCWW Response:

DCWW have a siloxane scrubber on to reduce the emissions arising from the AD process on site.

NRW are satisfied that the requirements of BAT 34 have been met and consider BAT 34 complete.

BAT 35

In order to reduce the generation of wastewater and to reduce water usage, BAT is to use

all of the techniques described within BAT 35 Table.

DCWW Response:

There is no wastewater routinely generated. This site is unique in that it is on a WwTW so wastewater is recirculated back to the head of the WwTW for treatment. Final tertiary treated sewage effluent is used in place of potable water used in the CAMBI process, for dilution water, belt press wash water in the cooling system & poly make-up. Some site fire hoses are also supplied as such. See Cardiff Major Flows.pdf

No uncontaminated surface water (roof water) has been redirected away from sewer since the site becomes tide locked twice each day. As such all roof-water also goes straight back to the head of the works. Generally the liquid and solid waste streams of EWC 19 06 05 (liquor) and 19 06 06 (digestate) are not segregated for recovery under SUIAR but can be in the event of breakdown or maintenance.

In preference to potable water consumption we utilise final tertiary treated sewage effluent from wastewater treatment process in the CAMBI process, for dilution water, belt press wash water in the cooling system & poly make-up. Some site fire hoses are also supplied as such. See **Cardiff Major Flows.pdf** There is no leachate generated in our AAD process

NRW are satisfied that the requirements of BAT 35 have been met and consider BAT 35 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.

DCWW Response:

DCWW have the process monitoring requirements held internally with suitable trigger levels to ensure the process is running as required.

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

Improvement Condition 2

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

- BAT 19 d) Techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels. Depending on the risks posed by the liquids contained in tanks and vessels in terms of soil and/or water contamination, this includes techniques such as:
 - overflow detectors;
 - overflow pipes that are directed to a contained drainage system (i.e. the

- relevant secondary containment or another vessel);
- tanks for liquids that are located in a suitable secondary containment; the volume is normally sized to accommodate the loss of containment of the largest tank within the secondary containment;
- isolation of tanks, vessels and secondary containment (e.g. closing of valves).

DCWW Response:

DCWW have supplied drawings of the new 1m wall that has since been installed on site. A large area of concrete has also been put down to the West of the site which has been structured to push and spill back onto the site. Any spills are then drawn towards the drains on site which are sent to the head of the works. The length of the 1m wall stretches from the West of the site following the coast path to the east of the site. Additional protection in the form of Treif Kerbs have been included from the digester to the Cake Bay which provides protection to the ground in case of any spills in this area. Maintenance regime including details on infra-red drone surveys, lithium tracing DCWW will run site maintenance utilising SAP where all ME&I/operational maintenance inspections and checks are scheduled and recorded across the DCWW asset base. Visual inspections of the containment areas and associated equipment will be added to the routine operational inspection rounds for all IED sites and maintained in SAP for future reference. Mechanical, Electrical & instrumentation maintenance will be in line with DCWW maintenance standards.

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

Improvement Condition 3

The Operator shall complete and submit for approval:

- a baseline report containing information necessary to determine the current state of soil and groundwater contamination;
- or
- Provide a summary report referring to information previously submitted where you are satisfied that such information represents the current state of soil and groundwater contamination;

so as to enable a quantified comparison to be made with the state of soil and groundwater contamination upon definitive cessation of activity.

DCWW Response:

The ARUP DCWW Cardiff East CHP Site Condition Report (1).doc from October 2009 has been obtained from the public register. Whilst it appeared to be incomplete and lack its own executive summary and have appendix D missing (perhaps it was provided in paper copy and these results were inserted in the folder?). That aside what information that it does contain details the land that Cardiff WwTW sits on was geological formations until it was reclaimed from the sea with slags and steel works wastes 9.5 - 11.6m deep. I am satisfied that it gives an adequate description of the state nature of the site at the time of our construction of the AAD plant. During the Dwr Cymru Capital Alliance scheme on site between February and August 2022 they will be undertaking some excavation and generation of waste which will be analysed in order to determine contamination levels prior to correct disposal in line with WM3 and we would be more than happy to share this

with NRW. Regarding cessation of the activity then unless there is a dramatic shift in how the UK manages its urban waste water from agglomerations such as Cardiff then sewage will continue to arrive down the sewer to Cardiff WwTW and the sludge will need treating ad-infinitum.

NRW are satisfied that the requirements of the Improvement Condition.

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.