

Compliance Assessment Report CAR_NRW0043249

Permit being assessed: AG0009101

For: Cowbridge Wastewater Treatment Works, held by DWR CYMRU CYFYNGEDIG

At: Lake Farm, St Athan Road, Cowbridge, CF71 7HY.

Type of assessment carried out: Site Inspection, Reason: Routine.

On 06/12/2023, between 10:15 and 12:00.

Parts of permit assessed: Conditions 2.1, 2.2, 2.3, 3.3.3, 3.3.4

NRW Lead Officer: Charlotte Rhodes, accompanied by: Hannah Jenkins.

Report sent to: Mark Mason, Catchment Performance Manager, on 07/02/2024.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-C1 - Emissions and monitoring - Emissions to water	Action only (X)	
WQ-B3 - Operations - Operating techniques	Action only (X)	
WQ-B3 - Operations - Operating techniques	Action only (X)	
WQ-B3 - Operations - Operating techniques	Action only (X)	
WQ-B3 - Operations - Operating techniques	Action only (X)	

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

2. What action is required?

Criteria	Action needed	Complete by
WQ-C1	DATA REQUEST: Please submit data for Storm tank levels, Full flow to Treatment, Inlet flow, EDM and the Storm weir overflow setting as requested and within the given timeframe.	07/03/2024
WQ-B3	Confirm and evidence the screen aperture size in line with Table S3.3 of the permit.	07/03/2024
WQ-B3	Please explain what prevents the storm tanks draining down during winter.	07/03/2024
WQ-B3	Please explain why there was so much flow (greater than the overflow setting) still coming into the works after 2 days of no rain before inspection.	07/03/2024
WQ-B3	Please clarify if flows from the Mecana unit are pumped or use gravity flow to return back to the Final Effluent Sample Point.	07/03/2024

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

Site Report

Officers H Jenkins and C Rhodes were met by DCWW Catchment Performance Manager along with Process Scientist, Operator and Operational Supervisor, Cardiff Area at Cowbridge Wastewater Treatment Works (WwTW), permit number AG0009101.

Weather was dry and cold with intermittent rain on the 2nd – 4th during the week preceding.

Current permit was issued 22/07/2020, following a Capital scheme to upgrade the site treatment and include Phosphate removal processes. The previous final effluent permit (AG0009101) was modernised and consolidated with the permit for the discharge of settled storm sewage from the site (AF3010501).

Inlet & Primary Tanks

It was noted on the previous inspection in February 2019 [ref CAR_NRW0034290] that flows from Llanblethian sewage pumping station (SPS) were measured at a new inlet whereas flows from Brookfield Park SPS (both terminal pumping stations) remained via an old inlet unmeasured. Dŵr Cymru representatives confirmed that this is no longer the case, and both are received at the “new” inlet installed when the site was upgraded. Flows from 'Brookfield Park SPS', 'Inlet works return', 'storm pumps Llanblethian' and 'foul pumps Llanblethian' were labelled at the inlet. All flows are then screened [**Condition 2.3.2 (d)**] mechanically, but were not accessible to check aperture size - **see Actions**.



The rag skips did not appear to have been emptied for some time as there was vegetation growing, but reportedly take a long time to fill up as there is not much rag coming through, so are emptied as and when required.

Condition 3.3.3 – MCERTS flow meter is a Magflow situated between the inlet and the primary tanks.

Certification is within date, it was last audited externally in 2020 and valid until 2025.



Condition 3.3.4 – It was noted that there is no bypass available for the Magflow to be cleaned and maintained in the current configuration. There appears to be a bypass valve as part of the adjacent Ferric dosing unit, it was queried if this was installed as intended in the recent scheme or if the bypass should be available to maintain the MCERTS flow metre. It was also discussed how maintenance could be made possible which we were informed is due to take place in 2024 - **see advisory comments**.

Both primary tanks seemed to be in good working condition with auto-de-sludge in place, which we were informed also includes sludge density monitoring, with manual sludge judging done periodically as required. It was observed that one of the sweeping brushes was misaligned on one of the primary tanks, allowing some fungus to form; this was mentioned to an operative while at site who agreed to rectify it.



We were informed that there are two ferric dosing points, one is currently in use between the two primary tanks [pictured above] and it was discussed that the second is not currently in use.

Storm Tanks

All 4 storm tanks were full at the time of visit and were at varying levels of septic with scum accumulated on the top, in a thick blanket on one tank [pictured below, left]. During our inspection when asked how long it takes for storm tanks to empty [evidenced by scum on top], the response given was that the tanks never drain down fully during winter. **Could you explain why?**

Condition 2.3.2 (b)(c) – Could you please explain why there was so much flow (greater than the overflow setting) still coming into the works after 2 days of no rain before inspection?



Condition 2.2.1 - Both final effluent and storm effluent were discharging from the permitted locations.

The storm outfall was easily accessible via a gate and steps and was discharging a large volume at the time of visit – pictured. The River Thaw was in spate, there was no visible discolouration at the outfall, however an odour was noticeable.



Secondary & Tertiary Treatment

All 4 filter beds were in operation at the time of visit and appeared to be flowing unhindered, however there was significant vegetation on all of them, particularly those closest to the Final Effluent point/furthest East - pictured below. Operatives said that prior to the installation of a fourth filter bed during recent works this was not an issue. **See advisory comments.**



Filter beds then drained to humus tanks with mechanical sweepers which appeared to be operating effectively [pictured below, left]. The Final Effluent and UWWTR Sample Point is clearly labelled and accessible, however the final effluent outfall is not accessible and viewing this from the opposite riverbank identified vegetation holding back flow and creating a build-up of foam before reaching the watercourse. **See advisory comments.**



Final Effluent Flow is then pumped via an intermediate pumping station to tertiary treatment of two Mecana (pile cloth media filter) units [pictured above, right] before returning to the sample point - **please clarify** if by pump or gravity flow. These units contain auto de-sludge and automatic level control and appeared to be in good working condition.

The Final Effluent and Urban Wastewater Treatment Directive (UWWTD) sample point was clearly labelled [pictured below, left] however there was no marked sample point for the Settled Storm Discharge - **see advisory comments**. Pictured below, right, is the view of the Final Effluent Point from the opposite riverbank.



Actions summary:

1. **Data request:** please submit the following data for the timeframe of 00:00 06/12/2023 to 00:00 10/01/2024
 - a. Storm tank level(s) - height - (m or %)
 - b. Full Flow to Treatment - MCERTS - l/s
 - c. Inlet flow - MCERTS - l/s
 - d. EDM discharges - times
 - e. Storm weir setting/overflow setting
2. Confirm the screen aperture size in line with Table S3.3 of the permit.
3. Please explain what prevents the storm tanks draining down during winter.
4. Please explain why there was so much flow (greater than the overflow setting) still coming into the works after 2 days of no rain before inspection.
5. Please clarify if flows from the Mecana unit are pumped or use gravity flow to return back to the Final Effluent Sample Point.

Other advisory comments

- It is recommended that maintenance of the Magflow is made possible at the earliest opportunity to prevent deterioration in the accuracy of flow measurement.
- Clear vegetation at the Final Effluent Discharge Point and arrange access for regular maintenance as best practise.
- Clear vegetation from the filter beds and ensure regular maintenance is carried out to prevent any impact on treatment.
- It is considered best practise for all sample points set out in Table S3.4 / Condition 3.3.4 of

the permit to be clearly labelled on site.

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

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend non-compliance for up to six months to allow time for remedial action to be taken. These will be re-instated if the action is not completed.

Full list of water quality action criteria (used in section 1 and 2):**WQ A: Management**

- WQ-A1 General management

WQ B: Operations

- WQ-B1 Permitted activities
- WQ-B2 The site
- WQ-B3 Operating techniques
- WQ-B4 Improvement programme
- WQ-B5 Pre-operational conditions

WQ C: Emissions and monitoring

- WQ-C1 Emissions to water
- WQ-C2 Emissions to land
- WQ-C3 Emissions of substances not controlled by emission limits
- WQ-C4 Installation of monitoring boreholes

WQ D: Information

- WQ-D1 Records
- WQ-D2 Reporting
- WQ-D3 Notifications

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.