

Compliance Assessment Report CAR_NRW0039420

Permit being assessed: AN0280001

For: COG MOORS STW CDIFF RD DINAS POWYS, held by DWR CYMRU CYFYNGEDIG

At: COG MOORS STW, CARDIFF ROAD, DINAS POWYS, BARRY, CF64 5RP.

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

On 16/12/2021, between 11:00 and 12:40.

Parts of permit assessed: Conditions 1, 3 - 8, 11, 12, 14, 16

NRW Lead Officer: Adam Evans, accompanied by: Charlotte Rhodes.

Report sent to: Sean Howard, Performance Manager, on 18/02/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-A1 - Management - General management	Assessed (A)	
WQ-B1 - Operations - Permitted activities	Action only (X)	
WQ-B2 - Operations - The site	Assessed (A)	
WQ-B3 - Operations - Operating techniques	Assessed (A)	
WQ-C1 - Emissions and monitoring - Emissions to water	Assessed (A)	
WQ-D1 - Information - Records	Assessed (A)	
WQ-D2 - Information - Reporting	Assessed (A)	
WQ-D3 - Information - Notifications	Assessed (A)	

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

2. What action is required?

Criteria	Action needed	Complete by
WQ-B1	- Please provide photographs to confirm correct FE sample point at Cog Moors. - Please provide photographic evidence of FE sample point labelling (as stated in permit). - Please provide an accurate NGR of FE sample point.	18/03/2022

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

Site Inspection

On Thursday 16th December 2021, a routine site inspection was conducted of Cog Moors WwTW's final effluent permit (AN0280001), by Environment Officers Adam Evans and Charlotte Rhodes. During the visit, NRW officers were accompanied by Sean Howard, Performance Manager (DCWW).

Inlet:

The site is predominantly fed by flow from the Barry and Cardiff West catchments. At the inlet was the site's MCERTS flow meter, which was reading 91x10 l/s during the time of inspection (see Photo 1). The display for the monitor is located on the wall of the site office. Grit is removed by two grit traps and there were three 6mm rotary screens for solids removal. Sean did mention that the site does have mild issues with grit bypassing the traps, resulting in tank draining once a year to remove any excess grit settled in them. After the 6mm screens was the storm sewage separating weir, which was set to a flow rate of 2145 l/s, however, this was not visible during the inspection.

Primary Settlement:

At Cog Moors there are four large rectangular primary settlement tanks (PSTs). Sean informed the officers that they measure 45mx10mx10m in size/volume. All four PSTs were in use during the inspection. There was a large amount of scum on the surface being successfully held back by the scum boards (see Photo 2). No scum/surface solids were seen bypassing the scum boards. The flow of water travels to the opposite end of the PSTs and weirs over, flowing to the secondary treatment stage (see Photo 3).

Secondary Treatment:

Flow travels down from the PSTs to the secondary treatment stage (aeration lanes) and is assisted by the site's interstage pumping station (four pumps), up to the aeration lanes. At Cog Moors there are five aeration lanes, which are each split into three zones. During the inspection, all aeration lanes were in operation. However, it was noted that there was no aeration/bubbling in Lane 1-Zone 2, during the visit (see Photo 4). Sean informed officers that this was due to a leaking air hose. During the inspection, there were contractors on site attempting to fix the hose. Sean said that the repair had been difficult, due the site being situated on a floodplain, so there had been high levels of ground water infiltration to the excavations. Sean informed officers that even though Lane 1-Zone 2 was out, there had been no issues or changes in the quality of final effluent. The repair was due to be completed by the end of the day. From the aeration lanes flow was taken to the final settlement tanks (FSTs).

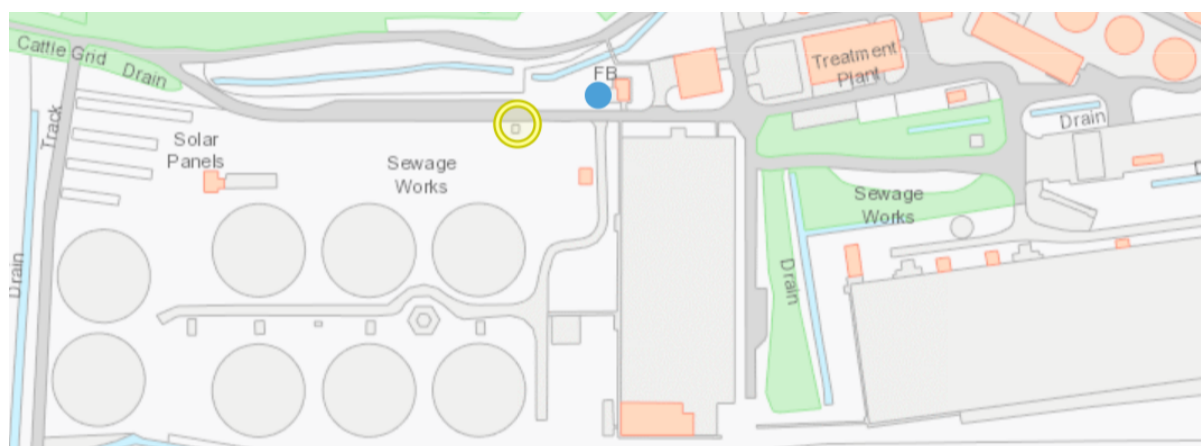
Final Settlement:

Cog Moors has eight FSTs, of which, seven were in use during the inspection. FST 3 had been drained to repair a failed centre bearing (see Photo 5). This tank will be out of use for up to six weeks, due to logistical issues with crane hire etc. Sean said that there is plenty of capacity in the other seven tanks to treat incoming flows over the oncoming weeks. Sean also informed officers that the sludge blanket levels were recorded weekly with the use of a "sludge judge". **NRW Officer Adam Evans, recommended that the sludge blankets be monitored by ultrasonic level sensors, due to the size and therefore risk of the site, if not installed already**

(see list of recommendations). The effluent leaving the FSTs appeared visually clear and of good quality (see Photo 6).

Final Effluent:

After the FSTs, the final effluent (FE) flows into a large open well (see Photo 7), before entering the pipe to discharges it to the coastal waters at Lavernock Point. Between the FSTs and the well, is the location of the site's FE sampling point. The FE sampling point, was shown to the officers as a tap, located at the blue dot on the map below. However, the permitted FE sample point is at NGR: ST 1596 6960, shown by the yellow circle.



This confused NRW officers because the location identified to them as the "FE Sample Point", had no formal labelling (that was seen) and used a tap to discharge the effluent, which is not a common practice. **Please can DCWW send Adam Evans a photo to confirm correct FE sample point, provide photos of the labelling and an accurate NGR (see list of actions).**

Sludge:

Sludge generated at Cog Moors, is used both in the aeration lanes and processed in the in-house AD plant. Sludge imports are also taken at Cog Moors for disposal via the AD plant.

Emergency Procedures and Pollution Prevention:

There is a standby generator on site for use during a power cut, as the site is run on mains power. However, this generator only has the capacity to power the primary treatment process. All site drainage is contained on site and drains into the works for treatment. All hazardous chemicals were stored in locked containers with appropriate bunding.

Site Documentation & Systems:

The site diary was reviewed during the inspection. It was kept up to date and no unrecorded issues were found. All records of site run charts were up to date and available for inspection with no issues. All live monitoring of the site was operational during the inspection. Although this was not seen during the inspection, it is noted that Cog Moors has an up-to-date MCERTS certificate for the flow meter at the inlet to the works.

Recommendations:

1. Sludge blankets be monitored by ultrasonic level sensors, due to the size and therefore higher risk of the site, if not installed already.

2. Sludge blankets be checked more regularly than once a week with a “sludge judge”.

Actions:

1. Please provide photographs to confirm correct FE sample point at Cog Moors – **Deadline 18/03/2022.**
2. Please provide photographic evidence of FE sample point labelling (as stated in permit) – **Deadline 18/03/2022.**
3. Please provide an accurate NGR of FE sample point – **Deadline 18/03/2022.**

Photos:

Photo 1: MCERTS flow monitor display.

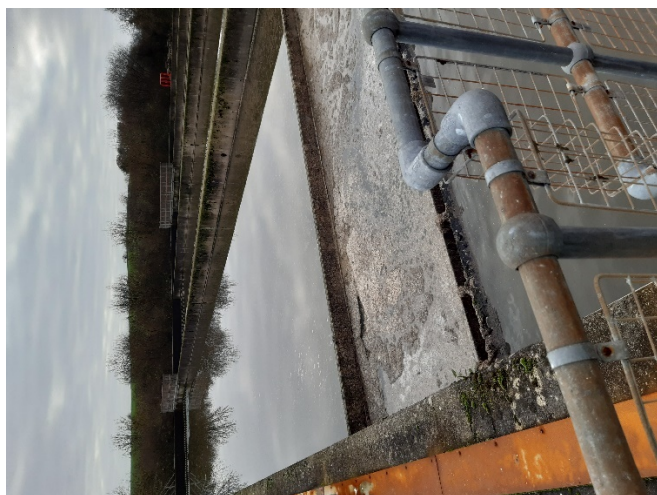


Photo 2: Scum boards in operation.



Photo 3: Weir at PSTs – Flow heading to aeration lanes.



Photo 4: Aeration lane 1, Zone 2 not aerating.



Photo 5: FST 3 drained for centre bearing repairs.



Photo 6: FE leaving one of the operational FSTs.



Photo 7: Well containing FE before discharge to Lavernock Point.

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.