

## Compliance Assessment Report CAR\_NRW0045244

**Permit being assessed:** AN0280003

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: Incident Response (Incident number: 2406118).

On 20/09/2024.

Parts of permit assessed: Conditions 2, 4, 6 and 7.

**NRW Lead Officer:** Charlotte Rhodes.

**Report sent to:** DCWW CARS Mailbox, DCWW CARS Mailbox, on 20/09/2024.

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

| Part of permitted activity assessed (criteria)                                          | Assessment result | Permit condition |
|-----------------------------------------------------------------------------------------|-------------------|------------------|
| WQ-B1 - Water Quality - Operations - Permitted activities                               | C3 Minor          | 2                |
| WQ-C4 - Water Quality - Emissions and monitoring - Installation of monitoring boreholes | Action only (X)   |                  |
| WQ-D2 - Water Quality - Information - Reporting                                         | Action only (X)   |                  |
| WQ-D1 - Water Quality - Information - Records                                           | Action only (X)   |                  |
| WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water                   | Action only (X)   |                  |
| WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water                   | 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-B1    | Ensure sufficient maintenance of equipment in order to minimise pollution risks associated with the operation of the works.                                                                                                                                          | 20/03/2025  |
| WQ-C4    | Please clarify what is meant by "access restrictions" with respect to incident sampling – as permit Condition 4 determines that there should be a designated sampling point on site and that access should be maintained in order to obtain a representative sample. | 22/10/2024  |
| WQ-D2    | Please explain the reasoning for the significant delay in self-reporting this incident and what will be done to ensure that, in                                                                                                                                      | 22/10/2024  |

| Criteria | Action needed                                                                                                                                                                                                                     | Complete by |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|          | future, such incidents are reported in a timely manner.                                                                                                                                                                           |             |
| WQ-D1    | In line with Condition 7, please provide maintenance records/program for the intermediate pumps from September 2022 to September 2023.                                                                                            | 20/11/2024  |
| WQ-C1    | It is unclear from this whether the emergency discharge passes through the storm tanks during an event in line with Condition 6. Please provide a full page version of the schematic from the WOM included within the storyboard. | 22/10/2024  |
| WQ-C1    | Although the site was already in storm conditions when this failure occurred, please detail the change in volume of storm discharge before, during, and after the pump failure.                                                   | 20/11/2024  |

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

#### **Introduction**

On 3<sup>rd</sup> May 2024, NRW received a self-report from Dŵr Cymru to state that a pump failure had occurred at Cog Moors Wastewater Treatment Works (WwTW) leading to a discharge to storm, and was under investigation, logged as WIRS reference **2406118**. This therefore relates to permit reference **AN0280003(01)**, which allows this asset to discharge sewage in an emergency subject to the permitted conditions.

#### **Incident timeline**

Between 03:30 and 07:00 on 2<sup>nd</sup> May 2024 a pump failure occurred at the intermediate pumping station on the biological treatment process of Cog Moors WwTW. This resulted in a portion of the primary settled effluent bypassing the aeration lanes and then discharging via storm in addition to the existing storm flows ongoing at the time, due to heavy rain.

Despite this, it was not self-reported to NRW until a WATPOL was received on 3<sup>rd</sup> May at 17:04, including that *“This also appears to have caused a bypass of the storm UV plant during this period. Full investigations to be completed next week and a detailed update will be provided once details have been confirmed. Further updates to follow.”* The WIRS was initially categorised as High level due to the site’s proximity to a SSSI and designated Bathing Water, to reflect the likely impact at the time even though by the time of reporting the discharge had ceased.

An update was received on 10<sup>th</sup> May at 11:16 stating: *“Investigations have taken place onsite the following week and have found that there was a pump failure on the Intermediate Pumping Station of Cog Moors STW before the Biological Treatment onsite. Root cause of pump failure is still currently being investigated onsite*

*and specialist contractors are attending site early next week to remove the failed pump and complete investigations. 3 pumps remain online at the Intermediate Pumping Station and only 1 pump is currently isolated and out of service which is the affected pump.*

*PFF is being achieved by site with no further incidents or issues occurring onsite since the initial incident. Temporary mitigation of a hire pump has been requested for site to replace the 4th isolated pump in failure. Further updates to follow once contractor investigations have taken place.”*

*A further update was received on 17<sup>th</sup> May, stating that “temporary mitigation hire pump has been installed and operational since Monday 13<sup>th</sup> May. External contractor have attended site on Thursday 16<sup>th</sup> May to remove gearbox from faulty pump, which has now been taken to their workshop for a full strip down and report. We are expecting to receive a report from [contractor] on Monday 20<sup>th</sup> May detailing the root cause of failure. Further updates to follow.”*

*A final WATPOL was then received on 6<sup>th</sup> June 2024 at 10:35: “Prolonged investigations by onsite MEI and external contractors have determined the root cause of this incident to be an electrical failure on critical equipment at the intermediate pumping station which feeds the biological treatment process. This electrical failure has now been rectified onsite and we have experienced no further issues since the initial incident which led to emergency discharge. No further updates.”*

*A storyboard was submitted on 4<sup>th</sup> July 2024 at 09:57, summarising the above and including an excerpt from the Works Operating Manual (WOM) which outlines that UV treatment is only applied during normal storm conditions and in the event of an emergency overflow during UV operation – as in this instance – a controlled shutdown of the UV plant will automatically trigger.*

### **Conclusions**

In summary, the cause of the incident was found to be a “complete electrical failure of critical pump” which required a removal from service and temporary mitigation pump installation. Dŵr Cymru determined that there was a minor impact to the environment due to the ongoing very wet weather and site already discharging to storm at the time, even ticking “No environmental impact” later on in the storyboard. However, given the site’s proximity to a SSSI and designated Bathing Waters, and bearing in mind the automated UV shutdown meant that storm discharge during this time into said Bathing Waters was not UV treated, we would not accept a No Impact Claim for this incident.

There is also no explanation given for the delay in self-reporting this incident more than 24 hours after its occurrence, which is not acceptable as there was no means of investigating the true impact by this time and samples were not taken by Dŵr Cymru during the incident due to “access restrictions”.

On assessment against the permit conditions, it has been determined that whilst the situation could be considered an emergency and potentially unforeseen, the situation is not covered by the allowances of permit for Discharge of Sewage in an Emergency. The permit covers electrical power failure of the site or mechanical breakdown of the pumps only.

Consequently, this has been recorded as a **non-compliance with Condition 2**. The discharge of partially treated effluent in addition to storm sewage discharge was during storm conditions, no secondary reports of pollution at the time were received, therefore a categorisation of Minor (Category 3) has been given. The incident WIRS ref 24006118 has been categorised as ‘Event’.

Additionally, although a schematic from the WOM is included within the storyboard it is unclear from this whether the emergency discharge passes through the storm tanks during an event in line with **Condition 6**. Please provide a full page version of this schematic for review.

#### **Actions**

1. Please clarify what is meant by “access restrictions” with respect to incident sampling – as permit **Condition 4** determines that there should be a designated sampling point on site and that access should be maintained in order to obtain a representative sample.
2. Please explain the reasoning for the significant delay in self-reporting this incident and what will be done to ensure that, in future, such incidents are reported in a timely manner.
3. In line with **Condition 7**, please provide maintenance records/program for the intermediate pumps from September 2022 to September 2023.
4. Please provide a full page version of the schematic from the WOM included within the storyboard.
5. Although the site was already in storm conditions when this failure occurred, please detail the change in volume of storm discharge before, during, and after the pump failure.

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](mailto: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](mailto: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.