

Compliance Assessment Report CAR_NRW0044115

Permit being assessed: AF4024801

For: Creigiau Sewage Treatment Works Hoel Settled Storm, held by DWR CYMRU CYFYNGEDIG

At: Cardiff Rd, Creigiau, Cardiff, CF15 9NL.

Type of assessment carried out: Audit, Reason: Incident Response (Incident number: 2400160).

On 23/12/2023.

Parts of permit assessed: Conditions 2.1.1, 3.1.4 & 4.3.1

NRW Lead Officer: Charlotte Rhodes.

Report sent to: DCWW CARS Mailbox, DCWW CARS Mailbox, on 26/04/2024.

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	2.1.1
WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water	C4 No impact	3.1.4
WQ-D3 - Water Quality - Information - Notifications	C4 No impact	4.3.1

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	Consider updating the permit (or the Final Effluent permit for this site, AN0032201) to consider discharge in the event of an emergency such as this if likely to be required again.	Already completed
WQ-C1	We advise that readily available back-up power for monitoring equipment should be considered to ensure accurate records are maintained throughout.	Already completed
WQ-D3	We advise that in future, communications should be clear regarding incident status and updated as required i.e. whether a discharge is occurring and therefore requires upgrade to a Self Report.	Already completed

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**Incident details**

Initial OPNOT was received at 11:28 on 23rd December 2023, stating that a fire in the control room had resulted in a spill to storm and consequently the Nant y Glaswg watercourse.

An update was then received at 11:55 to say that South Wales Fire and Rescue Service were on site and the fire had been extinguished, but power to the site was down and investigations were underway. At this stage, flows were contained to storm tanks and **not spilling to storm**.

At 12:52 a further update stated: *“National grid fault confirmed as cause of incident and engineer has been notified for attendance as an urgent incident”*. Tankers were on route to support a limited discharge of effluent to the environment; a suitable generator and equipment to supply backup power were also being sourced while National Grid addressed the supply fault. The supplementary supply generator arrived on site at 15:38 and was operational at 16:53 – supporting the full site at 18:33.

The final update was received on 29th December 2023 at 10:18 stating that all damaged electricals had been replaced and mains power was fully restored.

It later became apparent through emails exchanged between Officers and DCWW that there was a communication error and the OPNOT was not upgraded to a self-reported incident as intended, because a storyboard had been requested internally which is standard practise following DCWW incidents.

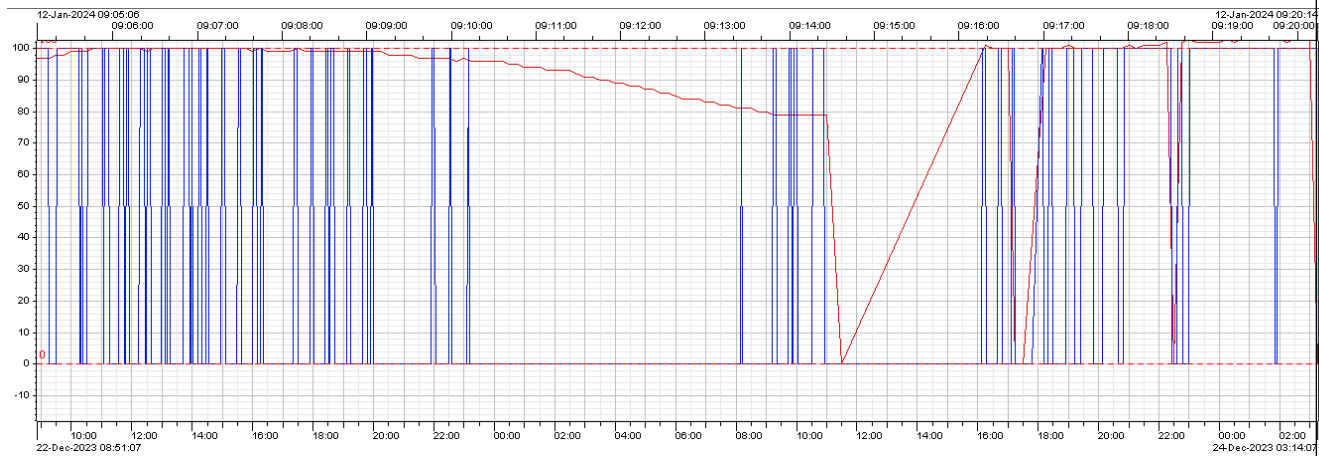
The storyboard was sent to NRW on 12th January 2024, along with a Third Party [incident] Claim and confirmation that there was a period of untreated discharge into the Nant y Glaswg. Officer Rhodes responded with a request for an incident summary report or similar from National Grid regarding their repair but was told this was not possible as the engineer only provided verbal feedback in this instance and reportedly it is not standard practise for them to provide written reports for such incidents. Their verbal feedback was transposed into the DCWW storyboard as follows:

“After emailing national grid requesting more information on the cause of the fire. We received a call back from an area manager to provide feedback. The manager advised that the fire was caused by electrical arcing. This is because the yellow phase contact failed where the electrical cable enters the electric meter within the station. This failure caused heat to increase over time and had melted away the yellow protective strip along the cable, exposing the electricity cable so that electricity could arc and start a fire. The electrical cable before the meter is a national grid asset and had to be maintained by them.”

This was considered sufficient to accept the Third Party Claim given the lack of available written confirmation from National Grid; there were also photos of the control room fire submitted within the DCWW storyboard, copied below.



Telemetry was unavailable for the duration of the incident (11:30 – 16:00) due to the power failure, as seen below, with the storyboard stating: *“It is difficult to be sure on how much the asset spilled without treatment. Looking at telemetry it seems power was restored through generators at about 4pm. Telemetry was lost during the power outage so the telemetry for the storm tanks has filled in the gap with a linear line for when the power was out. It is likely the storm tanks filled quite quickly once power was lost so the untreated spill event lasted somewhere between 5-6 hours.”*



Condition 3.1.4 states that *“The operator shall take appropriate measures to ensure that the event recorder remains fully operational at all times within the reference period specified in table S3.1. Any failures shall be remedied as soon as reasonably practicable.”* Since telemetry is unavailable for the duration of the incident this constitutes a non-compliance. Acknowledging that the Third-Party Claim was accepted by NRW, we do not have any Actions to note going forward but do advise that readily available back-up power for monitoring equipment should be considered to ensure accurate records are maintained throughout. With this in mind, the 4 hours it took to get a suitable alternative power supply to site should be minimised as far as possible.

We also determine a **non-compliance** with **Condition 4.3.1** in that, whilst NRW was notified as soon as reasonably practicable regarding the failure of equipment as a result of the fire, this was not raised to a self-reported incident as soon as it was realised the site was discharging to storm and thus having an adverse environmental effect. We advise that in future, communications should be clear regarding incident status and upgraded as necessary.

Additionally, there is no emergency provision within this permit and as such, we consider this incident non-compliant with **Condition 2.1.1** such that the discharge did not consist of settled storm sewage.

Environmental Impact

Ammonia readings for both the date of the incident and the following day were submitted within the storyboard – table below. Photos also showed discolouration to the watercourse and an evidential impact, particularly considering the discharge time of approximately 5.5 hours, however the watercourse was also in spate the following day due to heavy rain which reduced the overall impact.

Sample taken	Location	Result	Date and time
Ammonia Parts Per Million	Discharge to watercourse	3.93	23/12/2023 (photo missing)
Ammonia Parts Per Million	Downstream 100m	2.26	23/12/2023 14:00
Ammonia Parts Per Million	Upstream of treatment works	0.00	23/12/2023 14:17
Ammonia Parts Per Million	Final effluent sample point	9.99	23/12/2023 14:24
Ammonia Parts Per Million	Discharge to watercourse	0.72	24/12/2023 10:04
Ammonia Parts Per Million	Downstream 100m	0.57	24/12/2023 10:10
Ammonia Parts Per Million	Upstream of treatment works	0.01	24/12/2023 10:17
Ammonia Parts Per Million	Final effluent sample point	2.37	24/12/2023 10:23

In the storyboard summary this impact was acknowledged, and the root cause confirmed as the National Grid asset fault, in addition to the next steps planned by DCWW to work to prevent reoccurrence:

“Based on the ammonia samples taken and the photos of the watercourse, there was impact to the receiving watercourse following the power outage. There was untreated waste discharge to the final effluent line for around 5.5 hours before a generator could be brought to site and installed. Samples and photos taken the next day show that impact had significantly reduced, but because there was rain in the area that day, the asset was utilizing its storm discharge. Ammonia levels were much lower than the previous day. National grid confirmed that their asset had a fault which they have now resolved. We have sent a message out to Above Ground Assets teams to inspect the electrical supply when they attend their assets, to mitigate the risk of this happening elsewhere. If issues are identified these will be reported to National Grid.”

Advisory Comments

Whilst the Third-Party cause of this incident has been accepted and unlike other sites, within the permit for this asset there is not a condition referring to discharge in the case of an emergency relating to power supply, we do note two non-compliances with this permit. As such, wish to provide the following Advisory Comments (marked as 'Already Completed' actions):

1. **Condition 2.1.1** - Consider updating the permit (or the Final Effluent permit for this site, AN0032201) to consider discharge in the event of an emergency such as this if likely to be required again.
2. **Condition 3.1.4** - We advise that readily available back-up power for monitoring equipment should be considered to ensure accurate records are maintained throughout.
3. **Condition 4.3.1** - We advise that in future, communications should be clear regarding incident status and updated as required i.e. whether a discharge is occurring and therefore requires upgrade to a Self Report.

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.