

Compliance Assessment Report CAR_NRW0045171

Permit being assessed: BP0236601

For: Swansea Waste Water Treatment Works, held by DWR CYMRU CYFYNGEDIG
At: Dwr Cymru Welsh Water, Waste Water Treatment Works, Fabian Way, Crymlyn Burrows, Swansea, Swansea, SA1 8QP.

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

On 11/09/2024.

Parts of permit assessed: Emissions to Water

NRW Lead Officer: Sarah Bennett.

Report sent to: CARS@dwrwymru.com, CARS Mailbox, on 11/09/2024.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water	Assessed (A)	

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

2. What action is required?

No action required.

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

The purpose of this Compliance Assessment Report is to record our response to a request from you to consider if a potential non-compliance with UV Conditions 2.3.3 (b & c) between the 15th and the 16th of July 2024 should result in a reported numeric failure of the works. The conditions are as follows:

- a. The full dose limit in schedule 3 table S3.3b must be exceeded in at least 99% of the specified measurements in any period of 12 consecutive months.
- b. No more than 10% of measurements taken consecutively during any 24-hour period from midnight to midnight should fall below the 50% dose limit specified in schedule

3 table S3.3b.

The data is used by NRW to carry out a compliance assessment at the end of the year when all the data has been submitted. A non-compliance with these permit conditions would result in a numeric failure at Swansea WwTW.

On the 12th of August 2024 you sent us a report detailing the nature of the circumstances which you believe could result in a UV dose numeric consent condition failure not resulting from any failure in effluent treatment or any effluent control systems prior to the UV dose controls or UV equipment.

In the report you explained that on 'Tuesday 16th July at approximately 07:00 Operations Staff noticed that the data being recorded for the UV plant at Swansea WWTW was flat lining ie the data readings were the same every 15 minutes. The UV plant was checked and it was noticed that an override had been triggered on the plant which sets the readings to repeat the last reading every 15 minutes prior to the override being triggered. The reason for the override being triggered has not been confirmed but its believed that a power interruption may have been responsible.' You provided us with the UV data recorded for the period in question.

You notified us of this event by telephone on Wednesday 17 July at 0938. We do not appear to have received a UVMOT.

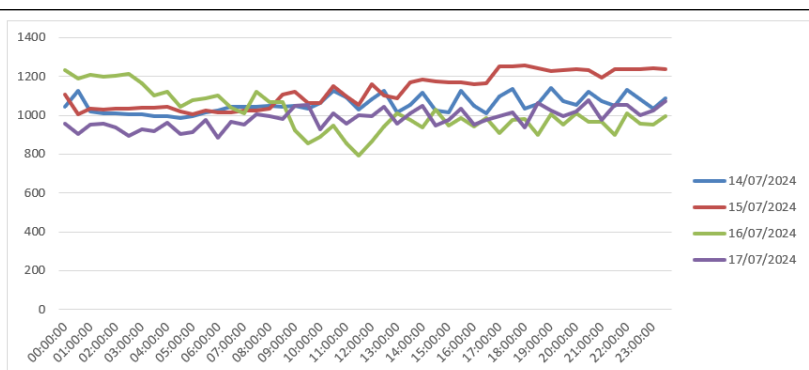
Your report then includes the following information:

'The data shows that the data started flat lining from 21:45 (BST) and continued to record in this manner until 06:45 (BST) on 16th July. Following a similar incident in March, a telemetry alarm was set up to raise a high level (priority 7) alarm when the override had been triggered. This would notify staff in work or on standby of a problem and site attendance is mandatory. The alarm history for 15th July is shown below and the alarm came in at 21:42 on 15th July:-

16-Jul-2024 10:12:10	847496	SWEST 1,099...	SWANSEA BAY SWK - PROFIBUS COMMS TO BLOWER UNIT NO.4 FAILED	ALARM	4	Clear	16-Jul-2024 14:01...	12	AGA EQUI
15-Jul-2024 20:27:43	81876	SWEST 1,099...	SWANSEA BAY SWK - UV APPLIED DOSE LOW	ALARM	6	Clear	15-Jul-2024 22:47...	None	
15-Jul-2024 14:57:10	831982	SWEST 1,099...	SWANSEA BAY SWK - UV1 COMMON MAJOR FAULT	ALARM	4	Clear	22-Jul-2024 16:05...	12	AGA EQUI
16-Jul-2024 11:27:09	831982	SWEST 1,099...	SWANSEA BAY SWK - UV1 COMMON MAJOR FAULT	ALARM	4	Clear	23-Jul-2024 14:10...	12	AGA EQUI
15-Jul-2024 21:42:28	8817	SWEST 1,099...	SWANSEA BAY SWK - UV1 FLOW IN OVERRIDE MODE	ALARM	7	Clear		None	
15-Jul-2024 21:42:28	8818	SWEST 1,099...	SWANSEA BAY SWK - UV1 UVT IN OVERRIDE MODE	ALARM	7	Clear		None	
16-Jul-2024 07:12:24	844057	SWEST 1,099...	SWANSEA BAY WWTW - INL SCG DEWTR 2 WASH FLW SWITCH LOW	ALARM	4	Clear	23-Jul-2024 07:48...	None	
15-Jul-2024 14:42:09	847463	SWEST 1,099...	SWANSEA BAY WWTW - INLET SCREEN 3 LEVEL INSTRUMENT FAILED	ALARM	3	Clear		12	AGA EQUI
15-Jul-2024 15:12:10	81947	SWEST 1,099...	SWANSEA BAY WWTW - PREMATURE SPILL TO STORM	ALARM	4	Clear	22-Jul-2024 16:05...	65	WASTE H
16-Jul-2024 12:27:10	847656	SWEST 1,099...	SWANSEA BAY WWTW - PROFIBUS COMMS TO BLOWER UNIT NO.2 FAILED	ALARM	3	Clear	16-Jul-2024 15:12...	12	AGA EQUI
16-Jul-2024 12:27:10	847657	SWEST 1,099...	SWANSEA BAY WWTW - PROFIBUS COMMS TO BLOWER UNIT NO.3 FAILED	ALARM	3	Clear	16-Jul-2024 15:12...	12	AGA EQUI
16-Jul-2024 01:57:30	81867	SWEST 1,099...	SWANSEA BAY WWTW - SPR CENTRIFUGE 1 UNAVAILABLE	ALARM	6	Clear	17-Jul-2024 10:45...	12	AGA EQUI

Unfortunately when the alarm was configured it was set as a transient alarm. This does not result in the Smarthub notifying anyone or requesting site attendance. This was an error in the original configuration of the alarm that was not detected until it was actually raised. The result was that there was no attendance to the alarm and the issue was only detected the following morning when Operational Staff were on site. This alarm has now been configured correctly and it has been dynamically tested to confirm that it works.

Since no one attended site during the night there was no evidence gathered to confirm the UV plant was operational. The Operator attending the UV plant early morning on 16th July confirmed the UV plant was operating before resetting the system. Evidence to confirm the UV plant was operational between 21:30 on 15th to 06:00 on 16th July can be demonstrated by the power consumption of the whole site. The graph below shows the rate of power being consumed in KW between 14th and 17th July:-



The UV plant draws approximately 150kW so there would have been a noticeable drop in power consumed if the UV plant had been offline during the period of flat lined data. The power being consumed is actually above the average rate of use during the period of data flat lining. On this basis DCWW request that NRW accept this request for exceptional circumstances to apply to this incident.'

You have presented us with records of power consumption for the works which, whilst they cannot provide the required UV monitoring data, strongly suggest that the UV plant was operational during this period of poor data.

You have told us that the mitigation put in place to prevent a loss of data after a similar event in March 2024 (see CAR_NRW0044364) failed. We accept, on this occasion, that the mitigation failure was unforeseeable. Now that you are aware of the issue, we would not expect this to happen again in the foreseeable future.

You have requested that when we carry out the end of year UV compliance assessment that the numeric UV failures discussed in this CAR be removed from the compliance register for the following reasons:-

- You have demonstrated that the UV plant was operational between 21:30 on 15th to 06:00 on 16th July despite no UV measured applied dose data being recorded to support this. This is based on power consumption.

Given that the risks of the non-compliance do not align with the penalties DCWW could incur as a result of NRW reporting the non-compliance to OFWAT, I consider it incumbent on us to review the information you have provided and provide a response to your request.

I accept that the evidence you have submitted shows that the UV was on. I recommend that your request be accepted and any numeric failures resulting from the poor data be removed from the compliance register, i.e., the failure should not be submitted to OFWAT as a numeric failure.

Thank you.

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 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.