

Compliance Assessment Report CAR_NRW0050564

Permit being assessed: CM0024401

For: Cilcain Wastewater Treatment Works, **held by:** DWR CYMRU CYFYNGEDIG

At: Hesp Alyn Farm, Pantymwyn Road, Cilcain, Mold, Flintshire, CH7 5NL.

Type of assessment carried out: Check Monitoring/Sampling,

Reason: Routine.

On 06/01/2026.

Parts of permit assessed: 3.1.3 a) For the emission limits in schedule 3 table S3.1 to which this condition applies, no sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with and c) For any sample of the discharge taken to be considered for the purposes of (a) above, the operator shall notify Natural Resources Wales in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

NRW Lead Officer: Amy Chisnell.

Report sent to: CARS mailbox, CARS mailbox, on 16/02/2026.

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

Part of permitted activity assessed (criteria)	Assessment result	Non-compliant permit condition
WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water	Assessed (A)	
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-C1	Ensure OSM sampler informs operator of potential issues when required following appropriate procedures	31/03/2026

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

On 06/01/2026, an OSM sample was collected from Cilcain (Pantymwyn) WwTW which returned the below results:

Ammonia: 23.3 mg/l

Total Suspended Solids (TSS): 49 mg/l

Biological Oxygen Demand (BOD): 62 mg/l

The ammonia and BOD were above the consented limit of 20 mg/l and 40 mg/l respectively.

The sample was taken during a yellow weather warning for snow and ice across north Wales, including Flintshire, which had heavy snow and ice across the county.

DCWW notified NRW of the exceedance on the 15/01/2026 and an exceptional circumstances waiver was submitted on the 23/01/2026.

The permit for Cilcain WWTW has the following conditions:

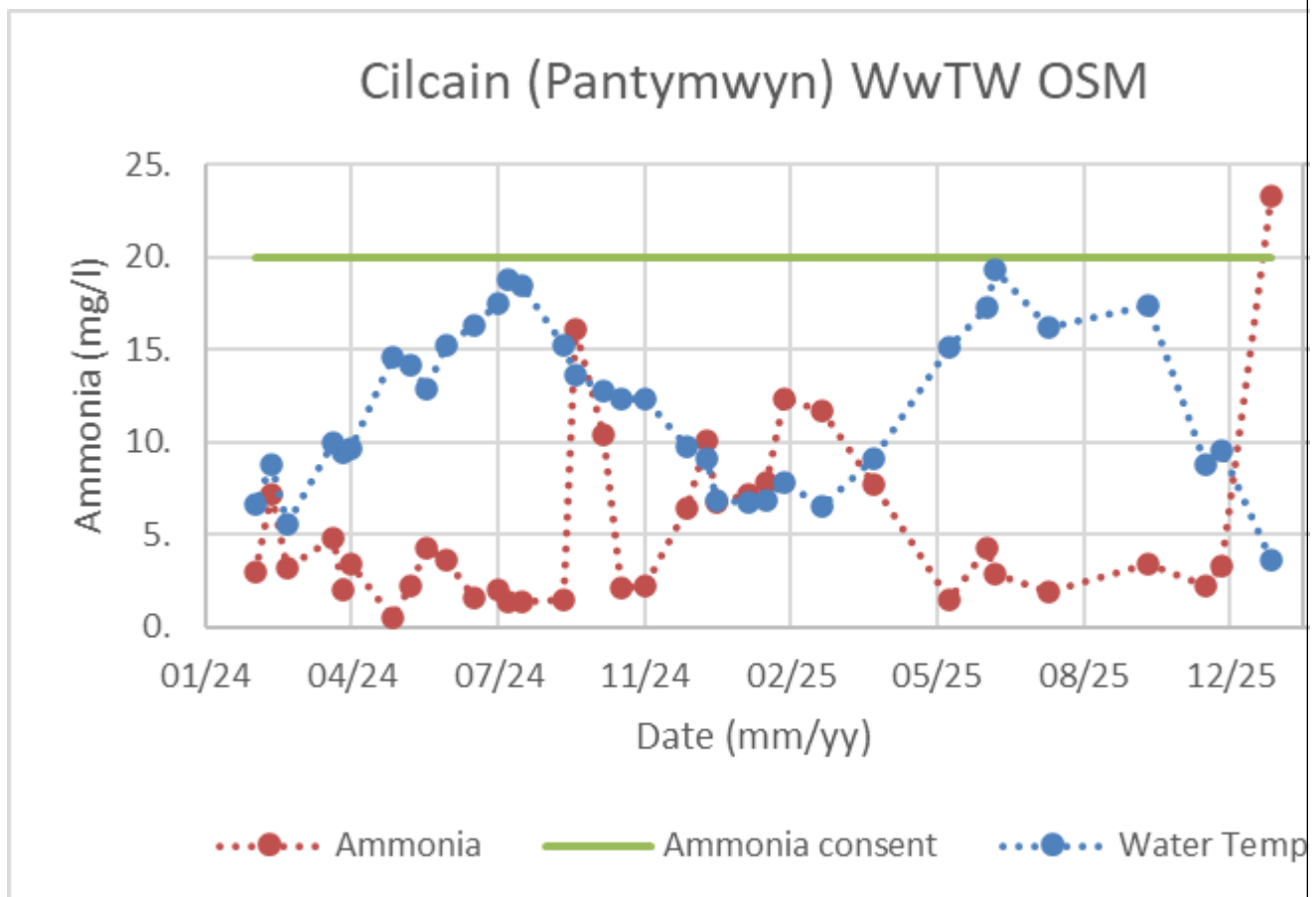
3.1.3

- a. For the emission limits in schedule 3 table S3.1 to which this condition applies, no sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.
- b. On any occasion where unusual weather conditions adversely affect the operation of the waste water treatment works, the operator shall use its best endeavours to mitigate that adverse effect.
- c. For any sample of the discharge taken to be considered for the purposes of (a) above, the operator shall notify Natural Resources Wales in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

The following information was submitted:

Pantymwyn area was particularly bad on the 5th and 6th of January. The roads surrounding site are narrow country roads, a lot of which had not been gritted, leading to treacherous conditions, and meaning that operators only had limited time for site maintenance during the day, if they could get to sites at all. The village and the surrounding area is around 700 feet above sea level, meaning that temperatures were colder and the snow was heavier than in other parts of Flintshire at the time.

When the OSM sample was taken, the recorded water temperature was 3.6⁰C. This is significantly colder than any other sample taken in the last 2 years. The below figure shows the water temperature of OSM samples in the last 2 years with it's corresponding ammonia result. The figure shows that usually the water temperature is much higher than 3.6⁰C (the previous lowest being 5.6⁰C, and the average being 11.8⁰C). The ammonia is usually well within consent, and follows a rough pattern of being lower at higher temperatures, and higher at lower temperatures, barring a few anomalies. Clearly showing a pattern of biological treatment being worse at lower temperatures.



At 3.6⁰C, the microbial activity in the biofilter would have been slowed down considerably, massively effecting the biological treatment capacity of the biofilter. This would have led to a higher ammonia and BOD concentration coming from the filter, due to the inhibition of the

microbial population.

The site is a 3 x per week visit, on Monday, Wednesday and Friday, thus the site was not visited on the day of the OSM sample, which was a Tuesday. There was no escalation from the OSM sampler on the day, so DCWW operations did not know that an OSM sample had been taken. Therefore, a DCWW operator did not visit site on the day of the OSM failure, and the challenging conditions due to the snow and ice would have made it difficult anyway. As DCWW did not view the site on the day of the failure, and considering the weather conditions, it is possible that snow and ice had effected the treatment equipment on the day of the failure, leading to worse treatment capabilities. We had seen on other sites that snow and ice had stopped filter arms, settlement tank bridges and frozen pipes. It is possible that the filter arms had been frozen or stopped by snow on the 6th January, leading to stationary arms, limiting the biological treatment capacity even further, leading to high ammonia and BOD concentrations in the effluent.

The operator visited the site the day after the OSM sample, on 7th January, and had an ammonia of 7.6 mg/l. By this time the yellow weather warning for snow and ice had passed, and temperatures had started to rise. Thus, by this time, snow and ice would have mainly cleared, and so any issues that had been on the 6th, would have cleared. The temperatures rising would also have increased microbial activity in the biofilter, improving the ammonia and BOD treatment, taking concentrations well below consent levels.

We believe that the OSM sample taken 06/01/2026 is unrepresentative of how the site usually performs. The cold weather, combined with the ice and snow, would have severely impacted the biological treatment capacity at site, leading to a high ammonia and BOD concentration in the effluent. The site usually performs well with it's ammonia and BOD consent. In this instance, we are requesting that OSM sample 8638002 is waived.

NRW has reviewed the information provided and agree to accept the waiver.

Action: Please ensure OSM sampler informs operator of potential issues when required, following appropriate procedures to allow the operator to use its best endeavours to mitigate adverse effect(s).

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 required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
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

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 Monitoring
- WQ-C5 Installation of monitoring boreholes

WQ D: Information

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

Enforcement response

Any non-compliance with a permit condition 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 twenty working days to let you know if we agree to your request.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** 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.