Compliance Assessment Report CAR_NRW0048431

Permit being assessed: BB3891CG.

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

At: Green Lane, Dinas Powys, CF64 2TR.

Type of assessment: Audit,

Reason: Routine.

On: 08/05/2025 between 10:00 and 13:00.

Parts of permit assessed: Containment .

NRW Lead Officer: Lewis Evans.

Report sent to: Company Secretary, Advance Digestion Performance Manager, on 30/09/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2B - Installations - Operations - The site	Assessed (A)	
IR1A - Installations - Management - General Management	Action only (X)	

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

Total non-compliances recorded	Total non-compliance score
0	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR1A	Please update EMS to include a section specifically for containment, this can include overall information with reference to existing documents. Additionally, it would be recommended to include a section within this on a catastrophic failure.	22/08/2025

Compliance 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

Dŵr Cymru Welsh Water

Permit Number: EPR/BB3891CG

9th May 2025

Natural Resources Wales (NRW) undertook a containment audit at Dŵr Cymru Welsh Water (DCWW), Cardiff East Wastewater Treatment Works CHP Facility.

The primary objective to assess the storage of waste in line with permit condition 3.2.3:

'All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.'
The focus of the audit was DCWW's management of containment on site through their Environmental Management Systems (EMS) which would include the maintenance, inspections of tanks, accident management plans and other documentation. DCWW have a total of 14 tanks on site.

As part of the audit, DCWW were asked to supply all relevant sections of their EMS, Accident Management Plan (AMP), Planned Preventative Maintenance Regime (PPM) and any other relevant documents associated with the sites containment.

The following documents were received:

- Cog Moors WwTW - EMP
- Cog Moors – Environmental Emergency Procedures
- Digester Emergency Actions Cog Moors Issue 1
- Schedule 5 – Notification Register
- Digester Servicing and Inspections Tracker – Cardiff & Cog Moors

These documents formed the basis for the initial desktop containment audit. Further documentation was examined on site during the onsite audit on the 8th of May 2025, such as training certificates.

The tanks on site have the following volumes:

2x Blended sludge holding tanks	386m^3 each
2x SAS Holding Tanks	670m^3 each

Digesters (A & B)	2,200m^3 each
Digesters (C & D)	2,800m^3 each
2x THP Silos (A & B)	400m^3 each
2x Digestate Sludge holding tanks	500m^3 each
Export Silo	650m^3
Service Water Holding Tank	260m^3

Environmental Management System (EMS)

DCWW submitted their EMS documents prior to the visit. The documents describes DCWW overall management in place. These include sections such as, significant environmental impacts, the potential sources of pollution, Pollution prevention control, Bunds & chemicals on site, waste management as well as several others. The EMS covers main aspects of management for site.

The EMP outlines that all site drainage will return to the head of the works for treatment if any spills/leaks find their way to the drainage. The deliveries are inspected by authorised personnel to ensure that the containers are sound. Leaking containers are refused delivery to site. Additionally, all deliveries to site are supervised by trained, authorised staff. In terms of pollution control, the site has a number of control measures such as the sealed drainage, bunding of chemical and diesel storage and spill trays nearby. Significant spillages are reported as soon as possible and action for clean-up is implemented by trained personnel with a near miss form submitted. This is then recorded on an ENF003 and can be used as a test of the emergency procedure. In the event of a major spillage, e.g. tanker spillage, a specialised contractor would be procured to clear the spill having completed the emergency procedure. Planned preventative maintenance of equipment on site, ensuring equipment is maintained to its optimum capacity. Maintenance of equipment such as the Flare Stack and Biomethane Plant Stack is annually monitored by a UKAS accredited company. Alarms around the site trip if there is a gas leak. The facility has 5000 active alarms linked to the Scada system. Operations will be alerted via the Scada system in the event of abnormalities.

The site have four digestors, of these, two of the oldest digestors have 50% of the tank underground while the other two digestors (approx. 5years old) are all above ground (may be up to 1m underground).

Training Records

Training records were seen on site for operational staff. The following relevant training records were seen;

- Competence Management system (every 3yrs)
- Competent Operator Level
- DSEAR
- WWS AD Technical Operator Competency
- Chemical Delivery & handling
- Major Hazard Awareness & Barrier Workshop
- BAS Awareness

- COSHH

As the operational staff on site have completed the relevant training, this gives NRW confidence in the operator carrying out the daily, weekly, monthly checks on the tanks to highlight any issues, as well as the measures in place to clear up any spillages/incidents.

Action 1: Please update EMS to include a section specifically for containment, this can include overall information with reference to existing documents. Additionally, it would be recommended to include a section within this on a catastrophic failure.

Maintenance inspections and procedures

The digestors on site have a visual check on a weekly basis to check the integrity, for leaks and any other issues. However this is not a scheduled task for operational staff to complete. It was recommended that this is added to the job cards so there is an auditable trail available upon a future audit. Several repair jobs have taken place on the primary holding tanks on site (as seen in the picture below). Additional inspections is recommended with the tanks that have had some repair. Although the repairs are high up on the tanks, if a leak were to occur lower down, there is the potential for significant digestate to be spilled, especially when the tanks are located near to the site boundary.

For the main digestors, a survey is done approximately every 10years. This will depend on the grit levels within the tanks. Lithium testing is done to determine the levels of grit within the digestors and subsequently if a clean out is required. If so, DCWW may also conduct a structural survey of the tanks to check the integrity.

The IBC's which hold chemicals on site have been covered in a yellow jacket which protects the IBC from the elements and keeps rainwater away from the bund. This is good practice as the bund will not need to be emptied out and the space is fully available for the chemical in the event of a spill.

Secondary Containment

The secondary containment on site is covered by an approved (in permitting) heightened treif kerb which is designed to push any flow back towards the site. The containment looked to be in good condition on the site walk over. Monthly checks are completed on the bunds. This was seen on site through records. Any comments are also recorded and a note is produced to action the comment.

Control of deliveries

The treatment works have two ways of accepting waste sewage onto site. The primary way is via the sewage network (via the wastewater facility adjacent to the site). The second method is via tankers arriving on site and depositing the sewage sludge into bunkers. The primary method was not inspected on this visit, however, the second method was.
When questioned on how deliveries of sludge is brought onto site, the process was similar to that in Cardiff East CHP site. Lorries arrive on site, they enter the weighbridge then they are directed onsite and are told which bay they will be delivering to. Once at the import area they reverse the trailer to the doors. The driver then reports to the control room to state they are in position and are then able to

open the door and tip the sludge. They then close the door once the tipping has finished and then drive away via the weighbridge in order for the weigh to be calculated. Any spillages are reported immediately and are cleaned up by the driver if it is small. If the spill is larger then on-site staff arrive with a telehandler and clean up the area. Area is fully concreted and in good condition. On the visit, it was noted that a driver had driven off with the tailer still in the air and had hit a bridge with pipes. Fortunately, only damage to the structure was seen and there was no damage to the pipes.

The site also has an export area where two large tanks hold digestate to be spread on land. These are elevated and deposit the digestate into the lorries. Sensors are in place to ensure there is a trailer underneath prior to depositing. Similar arrangements are in place here with clean up as the deliveries.

Conclusion

Overall, there were no issues identified during the site walk over with the condition of the tanks and the bund inspections. All the vessels / bunds seen appeared to be in good condition, with no apparent issues. One of the main digester tanks had recently been inspected by a third-party company, no immediate issues were found on the tank.

Overall, the containment appears well managed on site, there are some gaps identified within the EMS, as discussed above, that need to be addressed.

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 of 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	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores
The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?
In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):

1. Management
- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations
- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring
- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information
- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

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.

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 to 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.