

Compliance Assessment Report CAR_NRW0037923

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 carried out: Site Inspection, Reason: Routine.

On 29/04/2021 between 10:00 and 12:00.

Parts of permit assessed: Site Inspection

NRW Lead Officer: Lewis Evans, accompanied by Mostyn Wall.

Report sent to: Keith Harris, Operations Supervisor on 11/05/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B5 - Infrastructure - Plant and equipment	Assessed (A)	
B3 - Infrastructure - Site drainage engineering (clean and foul)	Assessed (A)	

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

Total number of 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?

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

Visit of 29th April 2021

DCWW: Dave Holthofer, Keith Harris, Sean Howard

NRW: Lewis Evans, Mostyn Wall

1. Introduction

Due to Covid-19 the visit to Cog Moors was carried out after a review of the Covid Risk Assessment and site induction. The visit was mainly conducted outdoors with the exception of signing into site, induction for both myself and Mostyn and introductions were completed indoors. The visit was conducted with social distancing taking place at all times when possible, and the required PPE; gloves, eye protection, Hi-Viz, safety boots, Crowcon gas monitor. Mostyn Wall joined on the site visit. The visit was routine, for us to have a site tour to familiarise ourselves with the site.

The site is now covered under Permit EPR/BB3891CG which was issued to Dŵr Cymru Welsh Water on the 5th Nov 2020. The permit regulates the recovery of non-hazardous waste with a capacity exceeding 100 tonnes per day involving biological treatment, which is an activity covered by the description in Section 5.4 Part A(1)(b)(i). The installation uses wastes which is a blended combination of sludge imports from other Dŵr Cymru sites and indigenous sludge from the Cog Moors WwTW for anaerobic digestion. Cambi Thermal hydrolysis breaks down the sludge into an easily digestible feed prior to anaerobic digestion, it uses steam generated from two 4.408 MW thermal input natural gas boilers to increase the temperature and control the pressure to pre-treat the sludge. Sludge is cooled via water coolers for anaerobic digestion, which is carried out in four digesters. The biogas produced from anaerobic digestion is transferred to a gas holder, via a siloxane removal plant to two Combined Heat and Power (CHP) engines for use as a fuel to produce electricity and heat. The two CHP engines have a thermal input of 3.679 MW and an electrical output of 1.5 MW, they will use 100 % biogas as fuel.

There are a total of fourteen emission points to air, four are related to the combustion processes, four are relief vents from the four digestion tanks, three are related to the OCUs, the remaining three emission points are related to the siloxane removal plant, waste gas burner (emergency flare) and a pressure relief valve on the biogas holder. There is one discharge to sewer, all surface water and process waters are contained within the sealed drainage system and returned to the head of the adjacent existing Cog Moors WwTW.

The permit contained five improvement conditions which have been received and accepted. Further detail is outlined below.

The site is currently undergoing commissioning of the CHP engines which is due to be finalised as soon as possible.

ACTION #1 – Once commissioning has been completed on site, can you notify NRW

via email of the handover and any accompanying documents.

2. Site Tour

A site tour of all the main process areas was undertaken during the visit. During the tour DCWW staff explained the processes that occur on site.

3. Tanks on site

There is an annual shutdown at Cog Moors where the pressie vessels associated with the CAMBI process are emptied and et an internal intrusive inspection to ensure no weaknesses found which could leak to tank failure. This is carried out by Zurich.

There are monthly visual checks of the digester tanks to inspect the exterior of the tanks. The inspections are recorded on local forms and staff are looking for any cracks or weeps which may have appeared or changed from the previous month inspection. Any damage should be repaired immediately to maintain a structurally sound tank.

There are areas of small bunds that surround the tanks where maintenance and any testing of the digestate is carried out.

ACTION #2 – Please submit to NRW the reports that follow the inspections using the drone and the intrusive investigations. – 04/06/2021 and as soon as possible following the annual shutdown inspection.

4. Secondary Containment

During the walk round, we followed the sites secondary containment which was built following the permit determination. The bund was built with a curved lip at the top to deflect any spills back towards the site. During the visit, I noticed one of the concrete slabs had been damaged during construction. The damaged area was repaired. Please ensure the bunding wall is thoroughly maintained and inspected routinely to keep the integrity of the bund intact. The sites drainage is a 'closed loop system' which means any spills/storm water will flow back to the head of the treatment works to be processed.

5. Improvement Conditions

Improvement conditions have been accepted as per the email on the 7th April 2021. As mentioned in the email, during future visits or via a virtual meeting, we will target areas of the management plans to ensure all is up to date and compliant with the permit. I will notify you prior to the visit to ensure the documents can be prepared.

With regards to IC1, this was submitted as a draft with the intention of the finalised version of the process monitoring sheet to be submitted once the handover from

Skanska has been completed.

ACTION #3 - Please send the finalised version of the Digester parameter monitoring sheet and Cog Moors WOF 008-S over as soon as possible following the handover from Skanska.

Should any incidents occur on the site a Schedule 5 notification must be submitted to NRW within 24 hours. Failure to report within 24 hours will result in a compliance score against you. The site is currently compliant with its environmental permit.

6. **Action Summary**

Action #1 – Please submit to NRW the reports that follow the inspections using the drone and the intrusive investigations. – 04/06/2021 and as soon as possible following the annual shutdown inspection.

Action #2 – Once commissioning has concluded on site, can you notify NRW via email of the handover and any accompanying documents.

Action #3 – Please send the finalised version of the Digester parameter monitoring sheet and Cog Moors WOF 008-S over.

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.

What are suspended scores?

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 and Waste action criteria (used in section 1 and 2):**A: Permitted activities**

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

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.