

Compliance Assessment Report CAR_NRW0045105

Permit being assessed: PP3338CQ.

For: Nant-y-caws Landfill Site (Phase 1 Effluent Treatment Plant), **held by:** Carmarthenshire County Council

At: Nant-y-caws Landfill Site (Phase 1 Effluent Treatment Plant) Llanddarog Road , CARMARTHEN, Dyfed, SA32 8BG.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 24/07/2024.

Parts of permit assessed: Jan - Jun 2024 Monitoring Submission.

NRW Lead Officer: Benjamin Taylor.

Report sent to: Waste Strategy & Policy Officer, Carmarthenshire County Council, on 03/09/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A - Installations - Emissions and monitoring - Emissions to water, air or land	C3 Minor	Permit condition 3.1.2.
IR4C - Installations - Information - Notification	Action only (X)	
IR3A - Installations - Emissions and monitoring - Emissions to water, air or land	C3 Minor	Permit condition 3.1.2.

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

Total non-compliances recorded	Total non-compliance score
2	8

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
IR3A	Ensure discharges to controlled waters from the site are	03/09/2024

Criteria	Action needed	Complete by
	compliant with the emission limits listed within the Schedule 3(b): Table S3.1.	
IR4C	Ensure Schedule 5 Notifications regarding breaches of emission limit values are submitted to NRW within the specified timeframes.	03/09/2024
IR3A	Submit a permit variation to incorporate changes to the effluent treatment process at the installation.	29/11/2024

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

Introduction

This Compliance Assessment Report (CAR) is an assessment of the monitoring results and associated Schedule 5 notifications submitted by Excal Ltd (the Operator) on behalf of Carmarthenshire County Council covering between January – June 2024.

The Effluent Treatment Plant (ETP) receives and treats leachate generated from the Phase 1 Closed Landfill Complex via a Submerged Aerobic Filter (SAF) system. These SAF tanks are aerated by a grid of fine bubble diffusers mounted on the base of the tank, coupled to an air blower. Plastic media are deployed within the tanks to provide a high surface area for micro-organisms to grow and nitrify the leachate prior to discharge to controlled waters.

Scope

The following monitoring data has been assessed within this Compliance Assessment Report (CAR):

- PP3338CQ reporting form 30 July 2024.
- Schedule 5 Notifications.

January - June 2024 Monitoring Returns

The monitoring data between January – June 2024 was submitted by the Operator on the 24th of July 2024. The submitted data contained all informative requirements outlined within permit condition 4.2.3a and as a result is **compliant**.

The data was sent within the reporting period (28 days), which is **compliant** with permit condition 4.2.3.

The Installation has one discharge point to controlled waters (Afon y Bantwen), which is detailed as W1 within Schedule 7 of the permit.

Total Suspended Solids

Monitoring Date	Monitoring Location	Parameter	Reported Value	Emission Limit Value (ELV)
23/02/2024	W1	Total Suspended Solids (TSS)	76mg/l	30mg/l

Table 1: List of TSS exceedances between January - June 2024

The reporting form submitted by the Operator showed an exceedance of the Total Suspended Solids (TSS) limit on the 23rd of February 2024, this limit is contained within Schedule 3(b): Table S3.1 of the permit.

Permit condition 3.1.2 below states:

'The limits given in schedule 3 shall not be exceeded.'

Compliance:

The above TSS result is an exceedance of the emission limit outlined within Schedule 3(b): Table S3.1 of the permit. A non-compliance score of C3 against criteria IR3A has been allocated to this breach of permit condition 3.1.2.

Action:

Ensure discharges to controlled waters from the site are compliant with the emission limits listed within the Schedule 3(b): Table S3.1.

The Operator failed to submit a Schedule 5 Notification to NRW regarding the exceedance of the TSS permitted level to controlled waters, which is a requirement of permit condition 4.3.2. However, it has been noted that the exceedance occurred prior to the Operator being informed of their obligation to submit a Schedule 5 following an ELV exceedance. As a result, NRW will not be applying a non-compliance score.

Action:

Ensure Schedule 5 Notifications regarding breaches of emission limit values are submitted to NRW within the specified timeframes.

Total Nitrogen

Monitoring Date	Monitoring Location	Parameter	Reported Value	Emission Limit Value (ELV)
16/01/2024	W1	Total Nitrogen	75.05mg/l	25mg/l

Table 2: Reported Total Nitrogen figure within PP3338CQ reporting form 30 July 2024

The Operator reported a maximum figure of 75.05mg/l for Total Nitrogen which was collected on the 16th of January 2024. This has already been scored in a previous CAR (CAR_NRW0044049) and as a result a non-compliance score cannot be duplicated for the same reported figure.

Monitoring Date	Monitoring Location	Parameter	Measured Value	Emission Limit Value (ELV)
07/03/2024	W1	Total Nitrogen	266.19mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
14/03/2024	W1	Total Nitrogen	247.19mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
22/03/2024	W1	Total Nitrogen	217.05mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
27/03/2024	W1	Total Nitrogen	238.77mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
04/04/2024	W1	Total Nitrogen	218.32mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
10/04/2024	W1	Total Nitrogen	198.44mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
17/04/2024	W1	Total Nitrogen	239mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
26/04/2024	W1	Total Nitrogen	215mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
01/05/2024	W1	Total Nitrogen	223mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
08/05/2024	W1	Total Nitrogen	222mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
23/05/2024	W1	Total Nitrogen	237mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
29/05/2024	W1	Total Nitrogen	212mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)

04/06/2024	W1	Total Nitrogen	203.22mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
13/06/2024	W1	Total Nitrogen	210mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
19/06/2024	W1	Total Nitrogen	217mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
28/06/2024	W1	Total Nitrogen	226.54mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
04/07/2024	W1	Total Nitrogen	182.092mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)
17/07/2024	W1	Total Nitrogen	184.45mg/l (as NH ₄ , NH ₃ and NH ₂)	25mg/l (as Total Nitrogen)

Table 3: List of Schedule 5 Notifications for exceedances of Total Nitrogen ELV between March - June 2024

The Operator submitted 7 Schedule 5 Notifications for exceedances of the Total Nitrogen ELV, these are reported as the combination of Nitrate, Nitrite and Ammoniacal Nitrogen. NRW have requested that future analysis by the external laboratory is undertaken for Total Nitrogen directly. Investigations conducted by Excal Ltd have identified that the elevated Total Nitrogen is due to the lack of de-nitrification processes within the Effluent Treatment Plant (ETP). Currently, the ETP operates through the conversion of Ammoniacal Nitrogen to Nitrate.

Excal Ltd have proposed to incorporate a de-nitrifying reedbed into the end stages of the effluent treatment process. NRW attended Site on the 13th of August 2024 where the proposal was briefly presented, the Operator was informed prior to the meeting that additions to the Site process will need to be captured within a permit variation. NRW were informed by Excal Ltd that the proposal had been submitted to Carmarthenshire County Council, and they were currently awaiting approval.

Compliance:

The above Total Nitrogen results are an exceedance of the emission limits outlined within Schedule 3(b): Table S3.1 of the permit. A non-compliance score of C3 against criteria IR3A has been allocated to this breach of permit condition 3.1.2.

Action:

Submit a permit variation to incorporate changes to the effluent treatment process at the installation.

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.