

Compliance Assessment Report CAR_NRW0044390

Permit being assessed: TP3298FH.

For: Nantycaws Landfill Phase 1, **held by:** Carmarthenshire County Council

At: Nantycaws, Carmarthen, Carmarthenshire, SA32 8BG.

Type of assessment: Site Inspection,

Reason: Routine.

On: 23/04/2024 between 11:00 and 12:00.

Parts of permit assessed: General Site inspection.

NRW Lead Officer: Sally Wakeford, accompanied by Benjamin Taylor, Daniel Packer.

Report sent to: Diane Thomas, Waste Strategy and Policy Officer, on 22/05/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
W4B - Waste - Information - Reporting	C3 Minor	4.2.2 & 4.2.3
W2C - Waste - Operations - Operating techniques	C3 Minor	2.3.1(a)
W1A - Waste - Management - General management	Assessed (A)	

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
W4B	Following in the inspection the monitoring reports have been submitted as requested and no further action is currently required. Please ensure that the reports are submitted in future by the 31st January each year.	31/01/2025
W2C	Please provide an update as to when the monitoring wells and boreholes will be scheduled for checking and repair by 28	28/06/2024

Criteria	Action needed	Complete by
	June 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

On 23 April 2024 a walkover site inspection was undertaken by Sally Wakeford, accompanied by Benjamin Taylor (NRW), Daniel Packer (NRW) and Darren Saunders (CWM).

The purpose of the inspection was to gauge and overall understanding of the landfill and general check on maintenance and compliance with the Aftercare Management Plan.

The weather was dry with intermittent cloud, and had been dry for the few days preceding the inspection.

Site History

In 2015 the CAR report EAWML34138/5801 was issued confirming that the site could enter definitive closure, and on 27 May 2015 the permit was varied to include the approved closure report and aftercare plan. The permit was updated and consolidated into modern standards used under the Environmental Permitting Regulations.

Leachate must be transported off to an appropriate offsite facility for treatment. The leachate is treated at the Effluent Treatment Plant to the South of the site, under permit number EPR/ PP3338CQ also held by Carmarthen County Council.

Landfill gas must also be exported from the site to the Nantycaws Phase 2 landfill gas flaring facility (EPR/CP3735PB) or gas utilisation facility (EPR/LP3038SU). NRW have recently received information back through our Landfill Emissions Reduction Project that this is occurring.

The approved Aftercare Management Plan forms part of the permit conditions and the requirements of the plan must be undertaken.

Monitoring

W4B – Information – Reporting – Permit condition 4.2.2 & 4.2.3 – CAT 3 breach

Following a search of the NRW filing system and discussions with previous officers and teams NRW could not find a record of Annual Reporting being submitted since the permit was varied in 2015 (condition 4.2.2). Nor could any documentation be found showing

submissions of quarterly monitoring data as required by Schedule 4 Table S4.1.

Permit condition 4.2.2 states:

A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this facility and any agreed amendments thereto;

(b) the annual production/treatment set out in schedule 4 table S4.2;

(c) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;

(d) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;

Permit condition 4.2.3 states:

Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables

Following in the inspection the monitoring reports have been submitted as requested and no further action is currently required.

Please ensure that the reports are submitted in future by the 31st January each year.

A Compliance Assessment Report following review of the Annual Reports shall be completed and forwarded separately to this assessment.

Operating Techniques & Maintenance of Monitoring infrastructure.

W2C – Operations – Operating Techniques – Permit condition 2.3.1(a) – CAT 3.

You have been given a category 3 breach of the above condition as during the inspection it was noted that the monitoring infrastructure has not been maintained in accordance with the Closure and Aftercare Plan maintenance programme. It was identified that one end cap was not attached, and protective covers are missing from numerous monitoring points

across the site.

Photos:





Permit condition 2.3.1 (a) states:

The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.

Table S1.2 Operating techniques

Description	Parts	Date Received
Geotechnology report: "Aftercare Management Plan" dated January 2015 (reference: 1294r1v3d0115).	All	12/01/15

Section 1.3 of WP14 of the Closure and Aftercare Plan for perimeter gas monitoring states:

1.3 Routine Maintenance

During each round of monitoring access to each monitoring point and all infrastructure should be checked to ensure monitoring is safe and the infrastructure fit for purpose. To ensure the monitoring infrastructure is functioning the following pro-active maintenance programme should be implemented.

Action	Frequency	Potential contingency actions required
Inspect access routes to each monitoring point	During every monitoring event	Vegetation clearance to maintain safe access Removal of other hazards
Inspect borehole headworks	During every monitoring event	Replace padlock when required Headworks may sometimes need to be re-attached which may involve welding or concreting
Inspect gas monitoring port	During every monitoring event	Replacement of monitoring port due to wear and tear and to ensure there is a good fit

ACTION: Please provide an update as to when the monitoring wells and boreholes

will be scheduled for checking and repair by 28 June 2024.

Improvement Conditions

Permit condition 2.4.1 of the permit states that:

“The operator shall complete the improvements specified in Schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.”

Table S1.3 includes improvement conditions to the monitoring infrastructure.

Table S1.3:

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IPC1	Undertake survey of areas used to historically store materials. Objective of assessment should be to identify and assess potential damage to the cap. Use the results to determine practicable remedial measures required to remediate (where necessary) the capping systems and restoration layer.	14/01/16
IPC2	Investigate soft ground on southern flank west of drain placed to capture previous leachate breakout (Photo N on Figure 13 in WP2), fully saturated waste in southern part of site (see area identified in Figure 13 in WP2) and northwestern flank where ground is soft all year (Photo C on Figure 13 in WP2).	14/01/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IPC3	Improve accessibility at BH106 as piezometer tubing is below ground level.	14/07/15
IPC4	Repair headworks at BH109 to enable gas tap to be removed and groundwater level measured	14/07/15
IPC5	Excavate BH110 and install new headworks to enable monitoring.	14/07/15
IPC6	Investigate cause of poor drainage/different grass species on eastern flank (see area identified on Figure 13 in WP2). If necessary, develop remedial plan.	14/01/16
IPC7	Replace soil around leachate inspection chambers or lower infrastructure in areas where the waste has settled to minimize visual impact.	14/01/16
IPC8	Replace sampling valves on all gas extraction wells to enable monitoring at the well head.	14/07/15
IPC9	Clear vegetation and improve access to gas extraction manifolds.	14/04/14
IPC10	Identify gas extraction wells that are leaking and not fit for purpose. A plan should be developed to seal wells and or replace wells no longer suitable for use.	14/07/15
IPC11	Assess the need for new gas extraction wells as current number of wells is insufficient. Evaluate the potential for increased gas extraction.	14/07/15
IPC12	Ensure that all gas extraction wells are clearly identified and that the labelling system used agrees with the plan of the gas extraction network.	14/07/15
IPC13	As part of the 2014 Annual Monitoring Report (due January 2015), the operator will assess leachate level results against the leachate flow rates and rainfall records. This will be used to assess the effectiveness of the leachate drainage system.	14/01/16

There is no information on file to confirm that these Improvement Programme requirements were completed at the time.

ACTION: Please contact me to discuss these Improvement Conditions, it may useful if we conduct a site walkover together to understand what has been completed or still requires completion.

If you have any information on these being completed, please provide this for our records.

Vegetation

It is understood that the top surface of the landfill is regularly mown by CWM Environmental. Many of the flanks and onsite drainage ditches are heavily overgrown with thick vegetation. Trees are established in some places. Deep rooting plants will damage the cap and a thick layer of vegetation prevents adequate inspection of the landfill or blocks drainage. As part of the aftercare management plan, you must ensure these areas are not impacting the capping. Please note that any clearance of thick vegetation should not be undertaken when birds are nesting.

I note that the 2023 Annual Report states that although there is a proliferation of many trees there is no evidence of instability, failure or leachate breakout which has been observed during walkovers in recent years.

In 2015 the CAR report EAWML34138/5801 it stated:

Many of the flanks and onsite drainage ditches are heavily overgrown with thick vegetation. Trees (Birch) are starting to establish in some places. Deep rooting plants will damage the cap and a thick layer of vegetation prevents adequate inspection of the landfill or blocks drainage systems (e.g. surface water ditch on the cap). During the aftercare phase vegetation should be kept under control (e.g. grassed but no shrubs or trees should be allowed to establish). As part of the aftercare management plan you must ensure these areas are now cleared.

Photographs from 2015 and 2024 of vegetation changes to the landfill flank to the South of the landfill by the French drain:

Nantycaws Phase 1 Landfill

20th January 2015



Photograph showing French drain and heavy vegetation along landfill flank. No visual evidence of breakouts were noted.

2024:



Further photo blocked drainage channels, lining here is also visible:



Photograph showing established trees on landfill flank.



ACTION: Remove vegetation which has established on the landfill flanks, which may cause damage to the landfill capping.

Storage of materials and bins on landfill cap

It was noted during the inspection that there are a number of recycling bins being stored on the landfill surface. In 2015 damage to the restoration soils was identified on the had occurred and that it should not be used for storage. It has been noted that in the 2023 Annual Report it states:

“Following the removal of several stockpiles, CWM Environmental placed materials over the central part of the site during 2016. These works were aimed at reinstating the landfill landform and protection of the capping systems.”

Photograph of storage on landfill cap:



Storage on the landfill cap should be carefully monitored to ensure it does not damage the landfill cap and be removed.

Summary of Actions

- Please provide an update as to when the monitoring wells and boreholes will be scheduled for repair by 28 June 2024.
- Please contact NRW to discuss these Improvement Conditions, it may be useful if we conduct a site walkover together to understand what has been completed or still requires completion.
- Remove vegetation which has established on the landfill flanks, which may cause damage to the landfill capping.

END

Any compliance criteria not highlighted in the above summary should be considered as not assessed.

In this document 'Natural Resources Wales' means the Natural Resources Body for Wales established by Article 3 of the Natural Resource Body for Wales (Establishment) Order 2012.

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 Waste compliance criteria (used in section 1 and 2):

1. Management

- W1A – General management
- W1B – Energy Efficiency (MCP/SG facilities only)
- W1C – Avoidance, recovery and disposal of wastes produced by the activities

2. Operations

- W2A – Permitted activities
- W2B – Waste recovery plan
- W2C – Operating techniques
- W2D – The site
- W2E – Waste acceptance
- W2F – Technical requirements
- W2G – Improvement programme
- W2H – Pre-operational conditions

3. Emission and Monitoring

- W3A – Emissions to water, air or land
- W3B – Emissions of substances not controlled by emission limits
- W3C – Odour
- W3D – Noise and vibration
- W3E – Monitoring
- W3F – Pests
- W3G – Fire

4. Information

- W4A – Records
- W4B – Reporting
- W4C – 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.