

Compliance Assessment Report CAR_NRW0046256

Permit being assessed: PP3139GB.

For: Hafod Quarry Landfill Site, **held by:** Enovert North Limited

At: Hafod Quarry Landfill Bangor Road, Johnstown, Wrexham, LL14 6ET.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 31/12/2024.

Parts of permit assessed: Q4 (October-December) Monitoring returns 2024.

NRW Lead Officer: Jamie Blythin.

Report sent to: Regional Manager, Regional Manager, on 28/02/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2I - Installations - Operations - Leachate levels (only applicable to landfill)	Action only (X)	
IR2I - Installations - Operations - Leachate levels (only applicable to landfill)	Action only (X)	
IR2K - Installations - Operations - Landfill gas management (only applicable to landfill)	C3 Minor	3.1.7
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3.1.5
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3.1.1

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

Total non-compliances recorded	Total non-compliance score
3	12

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
IR2I	Action 1: continue to complete actions in Leachate Management Action Plan (LMAP) dated November 2024 and actions proposed following the Landfill Emissions Reduction Project (LERP) landfill gas audit (CAR_NRW0045947)	31/03/2025
IR2I	Action 2: Provide NRW with monthly leachate level data for each permitted monitoring point. Provide this on the last day of each month.	31/03/2025
IR2K	Action3: Continue to complete actions specified in updated Landfill Gas Action Plan (LFGAP) dated 24/01/25 and those proposed following LERP audit (CAR_NRW0045947)	31/03/2025
IR3A(1)	Action4: Submit a proposal in writing ,with supporting evidence, to NRW to raise ELV of chloride for monitoring point BHHA12C(B)	30/04/2025
IR3A(1)	Action5: Operator to continue to monitor surface water monitoring results. If elevated Ammoniacal Nitrogen levels persist then the operator will need to carry out further investigations to determine the root cause and resolution of this issue.	30/04/2025

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

This Compliance Assessment Report (CAR) follows the review of Q4 2024 (October-December) monitoring returns and schedule 5 notifications. Monitoring data was submitted to Natural Resources Wales (NRW) on 28/01/25 in accordance with permit condition 4.2.3.

Leachate

Leachate levels were monitored monthly in accordance with permit condition 3.5.1(a) and Table S3.1 (Leachate level limits and monitoring requirements). Monitoring data was provided for each permitted monitoring point for the quarter.

A total of 7,424 m³ of leachate was removed from site for treatment during Q4.

With reference to schedule 5 notifications Haf 378 (October) and Haf381 (November and December) there were 17 instances where the recorded leachate level was greater than

the compliance limit of 2m. NRW considers this a breach of permit condition 2.7.1. A non-compliance score for this permit breach (IR21-Leachate levels) has already been applied for this quarter following the landfill gas audit at the site in November 2024 (see CAR_NRW0045947) and will therefore not be applied in this CAR.

It should be noted that the breaches of permitted leachate levels were in the older cells (Cells 1,2,3 and 4). Leachate levels within the newer cells (Cells 5a and 5b) were within the permitted limits.

Action 1: continue to complete actions in Leachate Management Action Plan (LMAP) dated November 2024 and actions proposed following the Landfill Emissions Reduction Project (LERP) landfill gas audit (CAR_NRW0045947)

Action 2: Provide NRW with monthly leachate level data for each permitted monitoring point. Provide this on the last day of each month.

The operator completed leachate sampling as specified in Table S3.9. Two sets of sampling were completed as the operator did not complete this sampling during Q3.

Landfill gas

Perimeter gas monitoring was undertaken in accordance with Condition 3.5.1(d) and Table 3.6 (Landfill gas in external boreholes). With reference to Schedule 5 notifications Haf375 (October), Haf379 (November) and Haf383 (December) there were 26 instances during Q4 where methane (CH₄) levels in perimeter gas wells exceeded the 1% permitted Emission Limit Value (ELV). Values between 0-30.3% CH₄ were recorded during Q4. NRW considers this a breach of permit condition 3.1.7 and a non-compliance score has been applied (IR3A-Emissions to water, air or land-C3).

Action3: Continue to complete actions specified in updated Landfill Gas Action Plan (LFGAP) dated 24/01/25 and those proposed following LERP audit (CAR_NRW0045947)

Groundwater

Groundwater monitoring was undertaken in accordance with Condition 3.5.1(c) and Tables S3.5 (Groundwater-emission limits and monitoring requirements) and S3.11 (Groundwater-other monitoring requirements)

Samples were not taken at the following monitoring points as the operator states there was insufficient liquid to sample:

BH HA 1A(T), BH HA 5(T), BH HA 9A(T),BH HA 11B(T),BH HA 12A(T).

With reference to schedule 5 notification Hf380, on 22/11/24, monitoring point BH HA 12C(B) recorded a chloride value of 250mg/l vs a compliance limit of 200mg/l. NRW considers this as a breach of permit condition 3.1.5 and a non-compliance score has been

applied (IR3A-Emissions to water, air or land-C3).

The operator was scored for breaching the compliance limit of chloride in monitoring point BH HA 12C(B) during the review of Q2 2024 (CAR_NRW0045313) monitoring returns and given the following action

'Action5: Operator to carry out further investigations to determine the root cause of elevated chloride levels in monitoring point BH HA12 (B) and propose suitable measures to resolve the issue. Provide NRW with a written update outlining your proposals'

In response to Action 5, the operator provided the following within schedule 5 notification Hf380:

'BH HA 12C(B) is a replacement for previous borehole BH HA 12B(B), which was decommissioned and removed from the monitoring programme, due to the elevated background chloride results. BH HA 12B(B) was situated next to the slip road onto the A483 and it was thought that the application of de-icing salts could be a contributing factor.

Adjacent borehole BH HA 12A(M), also on the slip road, often has elevated chloride too, up to around 600mg/l. The elevated background chloride here is recognised by a higher limit set in the permit.

Partly for this reason, and also due to safety concerns regarding parking a vehicle on the slip road, the replacement borehole BH HA 12C(B) was installed much closer to the site boundary, adjacent to New Hall Road. It is likely that this is being affected by the same background conditions that affect other groundwater monitoring points in the area, for example from de-icing salts being applied to New Hall Road in the winter months. There does appear to be a spike in the chloride results in the winter time. (Which is not accompanied by increases in other leachate-pollution-indicators).

Permit limits were set for replacement well BH HA 12C(B) with the caveat that alternative limits can be agreed in writing with Natural Resources Wales.

Enovert are required to manage and monitor our operations so as not to have any detrimental effect on the environment. All the evidence points to the chloride not being from our operations. As to the root cause of the elevated chloride, we can only speculate that this may be from de-icing salts. We propose to resolve the issue by amending the permit limits by written agreement. We will discuss this with the consultants writing our 2024 annual report.'

It is noted that elevated levels of chloride were recorded in monitoring point BH HA 6A(B)-22/11/24-490mg/l and elevated Ammoniacal Nitrogen was recorded in monitoring points BH HA 2A(M)-22/11/24-2mg/l and BH HA 6A(B)-22/11/24-3mg/l. However, there are no compliance levels associated with these monitoring points.

Action4: Submit a proposal in writing ,with supporting evidence, to NRW to raise ELV of chloride for monitoring point BHHA12C(B)

Surface water

Surface water monitoring was completed in accordance with Condition 3.5.1(b) and (e),

Tables S3.3 (point source emissions to water-emission limits and monitoring requirements) and S3.10 (surface water-other monitoring requirements).

With reference to schedule 5 notification Haf377 (October) monitoring point SW2 recorded an Ammoniacal Nitrogen value of 5.5mg/l vs a compliance limit of 1.8mg/l on 14/10/24. With reference to schedule 5 notification Haf382 (November) monitoring point HafSW1A recorded an Ammoniacal Nitrogen value of 4.8mg/l vs a compliance limit of 1.8mg/l on 18/11/24. NRW considers this a breach of permit condition 3.1.1 and a non-compliance score has been applied (IR3A-Emissions to water, air or land-C3).

It should be noted that monitoring point SW1 (no compliance limit associated with this monitoring point), also recorded elevated ammonia at 3.1mg/l on 21/11/24. With reference to schedule 5 notification Haf382, the operator states:

'The result at SW1, upstream of the site, is also showing elevated ammoniacal-nitrogen, which cannot possibly be related to the landfill site and must be from another source. The likelihood is that both sample locations are affected by the same background processes.

Ammoniacal-N (in SW1A) was the only elevated result and there were no associated increases in other substances. Therefore, it is very unlikely to be due to any leachate contamination and is more likely to be representative of background conditions, such as rotting autumn leaf fall affecting the surface water, for instance.

If leachate contamination was the cause, then we would be seeing a wide range of parameters being elevated, which is not the case.

Future monitoring results will be reviewed to see if the elevated concentrations continue.'

Action5: Operator to continue to monitor surface water monitoring results. If elevated Ammoniacal Nitrogen levels persist then the operator will need to carry out further investigations to determine the root cause and resolution of this issue.

Annual report

An extension has been granted for the submission of the Annual Report until 31/03/25.

However, the following information has been supplied by the operator:

Volume tipped = 89,419 m³

Void Space remaining = 1,841,499 m³

LFG to engines m³/year = 7,439,635

LFG to Flare m³/year = 1,136,405

Total LFG = 8,576,040

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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.