

Compliance Assessment Report CAR_NRW0045313

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: 16/09/2024.

Parts of permit assessed: Q2 (April-June) 2024 monitoring returns.

NRW Lead Officer: Jamie Blythin.

Report sent to: Regional Manager, Regional Manager, on 10/12/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3E - Installations - Emissions and monitoring - Monitoring	C3 Minor	3.5.1(a)
IR2I - Installations - Operations - Leachate levels (only applicable to landfill)	C3 Minor	2.7.1
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 - Installations - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.5.1 (c)

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

Total non-compliances recorded	Total non-compliance score
4	16

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
IR3E	Action 1: Ensure all leachate wells are accessible so that monthly leachate readings can be taken from all monitoring points.	31/01/2025
IR2I	Action 2: Operator to continue to complete actions specified in the LMAP	10/01/2025
IR2I	Action 3: Operator to provide NRW with an updated Leachate Management Action Plan (LMAP) that includes actions with reasonable timescales to address perched leachate at the site.	31/01/2025
IR2K	Action 4: Operator to continue to complete actions specified in LGMAP	10/01/2025
IR3A	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.	31/01/2025

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 Q2 2024 (April-June) monitoring returns and schedule 5 notifications. Monitoring data was submitted to Natural Resources Wales (NRW) on 26/07/24 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) for the majority of the permitted monitoring points. However, monthly readings were not taken at the following monitoring points as the operator states that the chambers were too high to dip:

April- HafLMP4a, HAFLC5 and HAFLMP5a

May- HafLMP5a and HAFLC5B

June- HAFLMP5a, HAFLMP5b and HAF LC5B.

NRW considers the failure to complete monthly monitoring at all leachate monitoring points to be a breach of permit condition 3.5.1(a) and a non-compliance score has been applied (IR3E-Monitoring-C3).

Action 1: Ensure all leachate wells are accessible so that monthly leachate readings can be taken from all monitoring points.

During Q2 a total of 5,313 m³ of leachate was tankered offsite for treatment. Leachate heads between 0.16 and 26.98m were recorded against a compliance limit of 2m.

With reference to Schedule 5 notifications HAF364 (April), HAF367 (May) and HAF370(June), there were 17 instances reported where the recorded leachate level was greater than the compliance limit of 2m. NRW considers this a breach of permit condition 2.7.1 and a non-compliance score has been applied (IR21-Leachate levels-C3).

Action 2: Operator to continue to complete actions specified in the Leachate Management Action Plan (LMAP)

With reference to the Schedule 5 notifications mentioned above, the operator states that the presence of perched leachate is causing liquid to enter some wells at different heights, leading to some leachate levels appearing higher than they really are.

Action 3: Operator to provide NRW with an updated LMAP that includes actions with reasonable timescales to address perched leachate at the site.

On 12/08/24, the operator provided NRW with the following progress update on actions outlined in their LMAP submitted 30/01/24:

1. Complete outstanding permanent clay capping, circa 8,000m² - Replace temporary clay capping on Cell 4 and Cell 5a with permanent clay capping. Works will allow full restoration of these areas and improved control of surface water. Completed 26/04/24
2. Install fully automated pumping system in Cell 5b, operated via Ebox and transducers.- Completed
3. Undertake CCTV camera survey on all existing leachate infrastructure, to determine if working as required and if monthly leachate dips are providing an accurate representation of actual leachate levels within the site- Completed
4. Monitor liquid levels in gas wells to determine if this is having any effect on gas collection efficiencies- Gas wells 131 and 134 selected for pneumatic air pump installation. Liquid heads reduced via changing pumps consistently and gas well performance monitored. Completed.

5. Review leachate pumping system in LMP1b to determine if the eductor pump is working effectively. Remove pump and service. Reinstall and monitor flows. Look at alternatives if not successful. Pump continues to operate and has recently been lowered further within chamber.
6. Ensure safe access to all leachate monitoring wells included within the permit- As determined by results from CCTV Survey. Access available to all monitoring points other than LMP5a where access cannot be provided until gas main is moved. Programmed August 2024.
7. Review Leachate Management Plan and submit to NRW, outlining progress made towards 2m compliance levels. Ongoing. Last full review undertaken in April 2015. Ongoing- target end of October 2024.
8. Review Leachate Levels against risk-based control limits. These should be based on site geology and hydraulic containment in the fully contained cells. Ongoing. Review will form part of the HRA review and provide justification for varying the compliance limits via a permit variation. Awaiting consultant's feedback.
9. Following HRA review, propose new leachate compliance levels together with justification to increase levels from 2m above base, to risk-based limits. Ongoing. Waiting on proposed date from External Consultancy - request as priority.
10. Permit Variation application (if required) to be submitted following the HRA Review. To be determined.
11. Remove two stainless steel guide rails from Leachate Storage Tank to allow sealed lid to be closed. Will reduce odours generated when leachate pumped into tank but mushroom vent will still allow suction to vent. Completed.

NRW will continue to monitor compliance with permitted leachate levels closely following the completion of a number of actions in the LMAP outlined above. Breaches of compliance limits will continue to be scored and ongoing breaches will be reviewed in line with our Enforcement and Sanctions Guidance.

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 HAF 363(April), HAF366 (May) and HAF368 (June), there were 28 instances during Q2 where methane (CH₄) levels in perimeter gas wells exceeded the 1% permitted Emission Limit Value (ELV). Values between 0-27.1% methane were recorded during Q2. 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).

On 13/09/24, the operator provided NRW with an updated Landfill Gas Management Action Plan (LGMAP) in response to Action 2 CAR_NRW0044583. In relation to exceedances of ELV's in perimeter wells, the operator proposed the following actions:

5. Review previous reports and data in relation to historic perimeter gas exceedances along the southern perimeter gas monitoring boreholes. Previous report undertaken by MWH Ltd. Gas analysis from grab samples taken at BH12, etc. Enover to assess and report. Target completion- 30/11/24.
6. Review and monitor gas pressure in southern perimeter gas boreholes. Review current gas data and produce series of graphs. Assess for any patterns (atmospheric or gas field related) and set up alerts so these can be linked. Assess if nitrogen purging would assist understanding. Ongoing over next 12 months.
7. Assess gas well performance in Cell 1 adjacent to affected southern perimeter gas monitoring borehole. Liquid level monitoring in gas wells and produce plans to determine depth influence from wells to compare against perimeter borehole logs. Target 30/11/24.
8. Review permit limits of perimeter gas monitoring boreholes (inc gas flow), and prepare possible permit variation. Target date will be affected by completion of other action points.

Action 4: Operator to continue to complete actions specified in LGMAP

At the time of writing, it should be noted that a landfill gas audit of the site was completed in November 2024 by NRW's Landfill Emissions Reduction Project (LERP) Team. A separate landfill gas audit report and CAR will be produced in relation to this audit.

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).

With reference to schedule 5 notifications HAF365 (April 24) and HAF369 (June 24), monitoring point BH HA12C (B) recorded a chloride value of 440mg/l (414mg/l when 6% sampling uncertainty is considered) on 23/04/24 and a chloride value of 330mg/l (310mg/l when 6% sampling uncertainty is considered) on 20/06/24. The Emission Limit Value (ELV) for Chloride on this monitoring point is 200mg/l.

NRW considers the breaches of ELVs referenced above as a breach of permit condition 3.1.5 'The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 3 table S3.5 shall not be exceeded.' (IR3A-Emissions to water, air or land-C3).

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.

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).

These values were within the permitted limits and therefore compliant.

Particulates

Quarterly monitoring was completed and both monitoring points were within the compliance limits (200mg/m²/day) specified in table S3.12.

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.