

Compliance Assessment Report CAR_NRW0041841

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 carried out: Report/Data Review, Reason: Routine.
On 09/05/2023.

Parts of permit assessed: monitoring returns

NRW Lead Officer: Rebecca Harwood.

Report sent to: Ian Craven, Area Manager on 14/06/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	2.7.1
E2 - Emissions - Land and groundwater	C3 Minor	3.1.7
E2 - Emissions - Land and groundwater	C3 Minor	3.1.5
E3 - Emissions - Surface water	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	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
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
B1	see text below	30/06/2023
E2	see text below	30/06/2023
E2	see text below	30/06/2023

Action 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.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

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

Review of Q1 2023 (January - March) monitoring returns and Schedule 5 notifications.

Monitoring data was submitted to NRW in accordance with Permit Condition 4.2.3 on 9 May 2023, following a retest of a groundwater sample.

Leachate

Leachate levels were monitored monthly in accordance with Condition 3.5.1(a) and Table S3.1 (Leachate level limits and monitoring requirements). Transducer readings were provided for some monitoring wells. Dips to base were undertaken during December 2022.

During Q1 leachate heads between 0.39m and 30.93m were recorded against a compliance limit of 2m.

With reference to Schedule 5 notifications HAF327 (January), HAF329 (February) and HAF331 (March), there were 12 instances reported where the recorded leachate level was greater than 2m (excluding transducer readings). **NRW considers this a category 3 breach of Permit Condition 2.7.1 (B1 - Engineering for prevention and control of emissions).** The limit for the level of leachate listed in Schedule 3 - Table S3.1 (2m), shall not be exceeded.

Action 1: Operator to continue to ensure pumps and ancillary equipment are well maintained to maximise leachate removal.

It is noted that levels within Cell 5 are compliant, however, not all the monitoring points were accessible during the quarter.

Action 2: Ensure that leachate chambers allow level dips and samples to be taken from them as required by the permit.

During Q1 5,347m³ of leachate was tankered offsite for treatment.

Leachate sampling was completed in accordance with Condition 3.5.1(a) and Table S3.9 (Leachate – other monitoring requirements).

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 HAF326 (January), HAF328 (February) and HAF330 (March), there were 24 instances during Q1 where methane levels in perimeter gas wells exceeded the 1% compliance limit. **NRW considers this a category 3 breach of Permit Condition 3.1.7 (E2 - Land and groundwater).** The limits for landfill gas set out in Schedule 3 - Table S3.6 shall not be exceeded.

HAF326 (January) - elevated methane concentrations observed in boreholes GB01, GB03, GB04a, GB06a, GB07a and GB09, ranging between 1.1% (GB01) and 35% (GB06a).

HAF328 (February) - elevated methane concentrations observed in boreholes BH HA 10(T), GB01, GB03, GB04a, GB06a, GB07a, GB07b and GB08 ranging between 1.4% (BH HA 10(T) / GB08) and 41.8% (GB06a).

HAF330 (March) - elevated methane concentrations observed in boreholes BH HA 10(B), BH HA 10(T), GB01, GB03, GB04a, GB06a, GB07a, GB07b, GB09 and GB12, ranging between 1.3% (GB03) and 42.7% (GB06a).

Action 3: Operator to continue to follow landfill gas management plan and monitor closely.

Monthly in waste landfill gas monitoring was undertaken in accordance with Condition 3.5.1(d) and Table S3.8.

Weekly monitoring of the gas output to the LFG Utilisation Compound was undertaken in accordance with Condition 3.5.1(d) and Table S3.8

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).

Monthly groundwater levels were obtained. Quarterly groundwater analysis was undertaken during March 2023.

A Schedule 5 notification (HAF332) was received following a chloride exceedance in BH HA 12C(B). 280mg/l was detected against the ELV of 200mg/l. The sample was retested and the laboratory confirmed the result. **NRW considers this a category 3 breach of Permit Condition 3.1.5 (E2 - Land and groundwater).** The trigger limits for emissions into groundwater for the parameters and monitoring points set out in Schedule 3 - Table S3.5 shall not be exceeded.

Action 4: The Operator should review subsequent sample results to check for further elevated concentrations and investigate further if the result remains elevated.

All other samples were compliant with Condition 3.1.5, with no other breaches above the

permitted ELVs noted.

Samples were not taken from 6 locations (HA1A(T), HA5(B), HA5(T), HA9A(T), HA11B(T) and HA12A(T)) as there was insufficient liquid to sample.

Surface Water

Surface water monitoring was undertaken in accordance with Condition 3.5.1(b) and (e), and Tables S3.3 (Point source emissions to water - emission limits and monitoring requirements) and S3.10 (Surface water – other monitoring requirements).

All sample results were within the compliance limits specified in table S3.3. Quarterly monitoring was undertaken during January 2023.

Annual Report

The Annual Report was submitted in accordance with condition 4.2.2 on 28 March 2023, following an agreed extension. Further information was requested and received on 8 June 2023.

Energy consumption at the site is required to be reported by Condition 4.2.2(b) and Table S4.3. 4,911 kWh of electricity were used during 2022.

Annual production/treatment, as required by Condition 4.2.3(c) and Table S4.2, has been provided. 17,543m³ of leachate was disposed of offsite. Combustion figures show 1,056,250 and 7,238,780 normalised m³/year were combusted through the flare and gas engine respectively.

In accordance with Condition 4.2.2 (d-g), settlement figures were provided within the report between 0.4% and 2.7%. The remaining void was calculated in December 2022 at 2,133,119m³.

Landfill gas yields averaged c.947m³/hr. The flare was replaced during 2022. Annual point source emissions monitoring from the engines were undertaken during August 2022. Although the TVOC and NO_x results were above the ELV within Table S3.2, when the measurement uncertainty is applied the results were just within the compliance levels. Trace gas analysis emissions monitoring was also undertaken during August 2022.

A Flame Ionisation Detector (FID) walkover survey of the landfill was carried out on different dates in 2022 (17 March 2022, 29 March 2022, 28 July 2022 and 14 December 2022) in accordance with Condition 3.5.1(d) and Table S3.7. The submitted drawing was a compilation of these surveys. Emissions were generally below 10ppm with the exception of the operational area. The Operator reports that where elevated concentrations were identified remedial actions were undertaken or abstraction increased.

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.