

Compliance Assessment Report CAR_NRW0039932

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 20/05/2022.

Parts of permit assessed: Q1 monitoring return & 2021 Annual report

NRW Lead Officer: Rebecca Harwood.

Report sent to: Ian Craven, Area Manager on 08/06/2022.

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	Condition 2.7.1
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Action only (X)	
E2 - Emissions - Land and groundwater	C3 Minor	Condition 3.1.7
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	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
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
B1	See Action 1 below	30/06/2022
G4	see Action 2 below	30/06/2022
E2	see Action 3 below	30/06/2022

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 2022 (January - March) monitoring returns and Schedule 5 notifications.

Monitoring data was submitted to NRW on 29/04/2022 in accordance with Permit Condition 4.2.3.

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 have been provided where there is unsafe access to the monitoring wells.

During Q1 leachate heads between 0.90m and 29.46m were recorded versus a compliance limit of 2m. With reference to Schedule 5 notifications HAF306 (January), HAF307 (February) and HAF309 (March), there were 11 instances reported where the recorded leachate level was greater than 2m. **NRW considers this a breach of Permit Condition 2.7.1.** The limit for the level of leachate listed in Schedule 3 - Table S3.1 (2m), shall not be exceeded. (B1-CCS3).

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

Action 2: Report any Cell 5 leachate level non compliances on Schedule notifications and include LMP4a results.

With reference to Schedule 5 notifications HAF306, HAF307 and HAF309, the Operator states that high leachate levels in LMP2AR are believed to be due to perched leachate. The pump within this well is being lowered into the well gradually to avoid silt accumulating in the pump.

The Operator has stated previously that raised leachate levels in LMP4a and LMP4b are also due to perched leachate. Transducers have been installed in these wells to obtain readings. Work is ongoing to resolve the reliability issues with the air pump in LMP4b.

During Q1 6,649m³ 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 HAF305 (January) and HAF308 (February and March), there were 28 instances during Q1 where methane levels in perimeter gas wells exceeded the 1% compliance limit. **NRW considers this a breach of Permit Condition 3.1.7.** The limits for landfill gas set out in Schedule 3 - Table S3.6 shall not be exceeded (E2-CCS3).

HAF305 (January) - elevated methane concentrations observed in boreholes GB01, GB02, GB03, GB04a, GB04b, GB06a, GB07a, GB09 and GB12 ranging between 1.6% (GB03) and 38.6% (GB06a).

HAF308 (February) - elevated methane concentrations observed in boreholes GB01, GB02, GB03, GB04b, GB06a, GB07a, GB09, GB12 and BHHA10(M), ranging between 3.4% (GB03) and 24.8% (GB06a).

HAF308 (March) - elevated methane concentrations observed in boreholes GB01, GB02, GB04b, GB06a, GB07a, GB09, GB12, BH HA10(M), BH HA10(B) and BH HA10(T), ranging between 2.5% (GB09) and 38.4% (GB06a).

Historically, these perimeter gas wells have demonstrated elevated methane levels. All perimeter gas wells show very low or negative relative pressure. The perimeter gas wells are subject to the Landfill Gas Management Plan.

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

Advice & Guidance: As stated previously the Operator could sample the monitoring boreholes for mines gas / helium if it is thought this maybe influencing the methane concentrations.

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. 6 monthly groundwater analysis was undertaken during March 2022. The samples were compliant with Condition 3.1.5, no breaches above the permitted ELVs were noted.

Samples were not taken from 6 locations (HA1A(T), HA5(T), HA9A(T), HA9B(M), 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).

An elevated concentration of suspended solids was detected during March 2022 from SW1A, however the monitoring point was not discharging at the time. All other sample results were within the compliance limits specified in table S3.3. Quarterly monitoring was undertaken during January 2022.

Dust

As detailed in the previous CAR (NRW_0039286) it was noted that the recent permit variation (2018) had amended the requirements for dust monitoring to quarterly. Following correspondence with the Operator, **NRW confirm that dust monitoring is only required to be undertaken during the summer months (April – September) as previously agreed.** This requirement will be amended when the permit is next varied. All results should be submitted to NRW as part of the quarterly monitoring returns.

Review of 2021 Annual report

Condition 4.2.2 requires a report on the performance of the activities over the previous year to be submitted. The Annual Report was received in 30/03/22.

Cell 5a was engineered during 2021 with waste being tipped from 20 December 2021.

Energy consumption at the site is required to be reported by Condition 4.2.2(b) and Table S4.3. 5,2566 MWh of electricity were used during 2021.

Annual production/treatment, as required by Condition 4.2.3(c) and Table S4.2, has been provided. 28,497m³ of leachate was disposed of offsite.

Combustion figures show 700,700 and 7,127,441 normalised m³/year were combusted through the flare and gas engine respectively.

In accordance with Condition 4.2.3 (d-g), settlement figures were provided within the report between 1.3% and 2.5%. The remaining void was calculated in December 2021 at 2,293,223m³.

Landfill gas utilisation was at 91%, with gas yields averaging c.893m³/hr. Annual point source emissions monitoring from the engines were undertaken during March 2021. Although the TVOC and NO_x results were above the ELV within Table S3.2, when the measurement uncertainty is applied the results are compliant. Trace gas analysis emissions monitoring was also undertaken during March 2021.

A Flame Ionisation Detector (FID) walkover survey of the landfill was carried out on 30 March and 12 October 2021 in accordance with Condition 3.5.1(d) and Table S3.7. Emissions were generally below 10ppm with the exception of the operational area. The Operator reports that where elevated concentrations were identified remedial action actions

were undertaken by the site.

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.