

Compliance Assessment Report CAR_NRW0038848

Permit being assessed: BU7766IC.

For: Bryn Posteg Landfill , held by Sundorne Products (Llanidloes) Ltd
At: Bryn Posteg Landfill Site Tylwch Road , Llanidloes, Powys, SY18 6JJ.

Type of assessment carried out: Audit, Reason: Routine.

On 12/10/2021 - 13/10/2021 between 13:00 and 14:00.

Parts of permit assessed: Landfill gas audit

NRW Lead Officer: Jamie Blythin, accompanied by Stuart Ross, Rebecca Harwood, Tyrone Ward.

Report sent to: Deborah Hall , Environment, Health and Safety Compliance Manager on 30/11/2021.

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 | Assessed (A) | |
| B1 - Infrastructure - Engineering for prevention and control of emissions | Action only (X) | |
| B1 - Infrastructure - Engineering for prevention and control of emissions | Action only (X) | |
| G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment | Action only (X) | |
| B1 - Infrastructure - Engineering for prevention and control of emissions | Action only (X) | |
| B1 - Infrastructure - Engineering for prevention and control of emissions | Action only (X) | |

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

| Total number of non-compliances recorded | Total non-compliance score |
|--|----------------------------|
| 0 | 0 |

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 | ACTION 2: Action only- Perimeter wells to be clearly | 01/02/2022 |

| Criteria | Action needed | Complete by |
|----------|--|-------------|
| | labelled. | |
| B1 | ACTION 3: Action only- Please review gas collection efficiency in phase 1 area of the site e.g. refurbish, replace or supplement wells, in order to address lateral migration and non-compliances in the perimeter monitoring points. | 29/03/2022 |
| G1 | ACTION 4: Action only- Provide clarification for the discrepancy in the volumes recorded for the incoming gas line and the feed to the operational duty engine (it appears as if the incoming gas volume/flow rate is less than that being delivered to the engine). | 16/12/2021 |
| B1 | ACTION 1: Action only- Review comments on the fugitive emissions survey and ensure remedial measures are taken as required, e.g. addressing compressed air leaks and the pump fault at GW313. It is also recommended that an inspection is made of GW331 to establish the cause of the audible gas bubbling and potential remedial actions. Consider installing additional collection infrastructure in cell 9 to the LHS of the access track, (e.g. shallow well(s) pin wells/h Horizontals etc) if a review of waste depth allows. Provide an update report to NRW outlining what actions have been taken by the date specified. | 29/03/2022 |
| B1 | ACTION 5: Action only- Review H1 assessment with respect to stack height parameters. | 29/03/2022 |

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.

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

This compliance Assessment Report summarises the findings of a routine landfill gas audit completed 12/10/21-13/20/21.

The purpose of this audit was to assess landfill gas (LFG) emissions, collection and control. Discrete features such as gas and leachate extraction wells were surveyed for methane emissions using a Gazomat. LFG composition within gas wells was also

measured in a number of wells using a GA2000.

The following documents were completed as part of the audit and accompany this CAR:
Bryn Posteg landfill permit BU7766IC- perimeter gas well readings (13.10.21)
Bryn Posteg landfill permit BU7766IC- in waste gas well readings (12-13.10.21)
Methane emissions survey sheet -Bryn Posteg Landfill

The operator is authorised to accept waste via the landfill permit but at the time of the audit, no waste was currently being accepted. The operator stated that they were unsure when waste acceptance would resume.

In-Waste Gas Wells

Overall, the In-Waste gas wells appeared to be in good condition and well maintained as a result of the work that has been completed over the last 6 months to improve the infrastructure. Proactive management is in place, including well balancing and dewatering procedures.

Collection pipework (where visible) benefited from good falls to allow for effective condensate drainage, it is clear that a significant amount of resource has gone into maintaining pipework gradients in cells that have not been completed and are relatively flat. Over half of the gas wells benefit from pumps to help maintain slotted pipework availability.

The walkover fugitive emissions survey did identify defects at some features (refer to report) but these were generally minor in nature and fugitive emissions from the site were generally low,. This is supported by the fact that very little landfill gas odour was detected by NRW officers across the site and where it was detected it was very localised.

ACTION 1: Action only -Review comments on the fugitive emissions survey and ensure remedial measures are taken as required, e.g. addressing compressed air leaks and the pump fault at GW313. It is also recommended that an inspection is made of GW331 to establish the cause of the audible gas bubbling and potential remedial actions. Consider installing additional collection infrastructure in cell 9 to the LHS of the access track, (e.g. shallow well(s) pin wells/horizontals etc) if a review of waste depth allows. Provide an update report to NRW outlining what actions have been taken by the date specified.

It was observed that the tipping of leachate sludge in the area surrounding GW331 is hampering access to this well. The compliance assessment of the leachate sludge activity will be dealt with separately outside of this CAR.

Perimeter Gas Wells

Monitoring was undertaken from a selection of the perimeter wells at site on 13th October 2021. Readings were consistent with those reported by Sundorne Products (Llanidloes) Ltd. The Site Manager confirmed that valves and bungs were currently being replaced where needed.

Phase 1 – A number of perimeter wells in this area record methane above the compliance limit, fugitive methane was noted at 400ppm at one location along the vent trench. It is

understood that the nearest vertical LFG collection wells to this perimeter are old and may require replacement or additional control measures .e.g. pin wells installed closer to the cell perimeter to control LFG migration.

ACTION 2: Action only- Perimeter wells to be clearly labelled.

ACTION 3: Action only- Please review gas collection efficiency in phase 1 area of the site e.g. refurbish, replace or supplement wells, in order to address lateral migration and non-compliances in the perimeter monitoring points.

Landfill gas engines and flare

The gas compound benefits from one duty gas booster with two smaller standby units.

Engine 1 is the backup engine and Engine 2 is the main engine and was serviced in September 2021.

A reading from gas engine 2 taken on 12.10.21 was as follows:

CH4 48.8%
CO2 33.9%
O2 1.2%
Diff pressure -42.97mb

The engine is running at approximately 500m³ per hour.

On 12.10.21, the gas engine was running at approximately 75% load.

Flow meters in the gas compound read 210 Nm³/hr on the incoming gas line and 810 Nm³/hr on the feed to the operational duty engine.

The flare capacity was 2,220 m³/hr.

The flare has been running for over 10% of the year.

ACTION 4: Action only- Provide clarification for the discrepancy in the volumes recorded for the incoming gas line and the feed to the operational duty engine (it appears as if the incoming gas volume/flow rate is less than that being delivered to the engine) and provide details on how the information is relayed to the site office.

During the audit it was noted that the engine stacks in the gas compound do not currently meet the standards and recommendations in LFTGN08 in order to aid dispersion.

ACTION 5: Action only- Review H1 assessment with respect to stack height parameters.

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.