

Compliance Assessment Report CAR_NRW0041098

Permit being assessed: BU8819IV.

For: Pwllfawatkin Landfill Site EPR/BU8819IV, held by FCC Waste Services (UK) Limited

At: Pwllfawatkin Landfill Site, Pontardawe, SWANSEA, West Glamorgan, SA8 4RX.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 31/12/2022.

Parts of permit assessed: Please see Section 4 of this report

NRW Lead Officer: Michael Launder.

Report sent to: Richard Thomas, Operations Manager on 16/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	
E2 - Emissions - Land and groundwater	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	
E2 - Emissions - Land and groundwater	C3 Minor (Suspended)	3.1.2 Emissions to water, air or land & 3.2.3 Emissions to groundwater
E2 - Emissions - Land and groundwater	C3 Minor (Suspended)	3.1.2 Emissions to water, air or land & 3.2.3 Emissions to groundwater
A1 - Specified by permit	Action only (X)	
E1 - Emissions - Air	C4 No impact	3.1.2 Emissions to water, air or land & 3.3.5 Fugitive emissions of substances
E1 - Emissions - Air	C4 No impact	3.1.2 Emissions to water, air or land & 3.3.5 Fugitive emissions of substances
E1 - Emissions - Air	C3 Minor	3.1.2 Emissions to water, air or land

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

Total number of non-compliances recorded	Total non-compliance score
5	4.2

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
E2	Q3 - The operator has submitted an application to vary their EPR permit, proposing changes to the ammoniacal nitrogen compliance limits affected by this non-conformance. This is now awaiting determination by NRW's permitting service.	Already completed
E2	Q4 - The operator has submitted an application to vary their EPR permit, proposing changes to the ammoniacal nitrogen compliance limits affected by this non-conformance. This is now awaiting determination by NRW's permitting service.	Already completed
A1	Operator to submit investigation into blockages in affected wells.	31/03/2023
E1	Q3 - The operator has submitted an application to vary their EPR permit, proposing changes to the carbon dioxide compliance limits affected by this non-conformance. This is now awaiting determination by NRW's permitting service.	Already completed
E1	Q4 - The operator has submitted an application to vary their EPR permit, proposing changes to the carbon dioxide compliance limits affected by this non-conformance. This is now awaiting determination by NRW's permitting service.	Already completed
E1	Q4 - The operator has submitted an application to vary their EPR permit, proposing changes to the methane compliance limits affected by this non-conformance. This is now awaiting determination by NRW's permitting service.	Already completed

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

The purpose of this Compliance Assessment Report (CAR) is a partial assessment of the 2022 monitoring results and compliance notifications.

For assessment activities taking place from the start of 2022, emission limit breaches from groundwater boreholes and perimeter landfill gas wells, the associated non-compliance scores will

be consolidated when:

- a) exceedances have occurred at different monitoring points (e.g. different boreholes) BUT
- b) the breaches occurred within the same monitoring period (i.e. Q1, Q2, Q3 or Q4) AND
- c) for the same emission parameter with a limit (e.g. ammoniacal nitrogen).

If another parameter (e.g. phenol) breaches its limit a separate non-compliance score will be applied. NRW is currently reviewing and updating its guidance on non-compliance scoring of permit breaches. This interpretation and approach will be included in the Annex for Landfills.

2022 - Quarter 3 Monitoring

Schedule 6 Notifications - Groundwater - Q3 July to September 2022

- A Schedule 6 notification submitted to NRW on 29 July 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 6 July 2022 as 1.7mg/l against the permit limit of 1 mg/l.
- A Schedule 6 notification submitted to NRW on 9 September 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 17 August 2022 as 1.7 mg/l against the permit limit of 1 mg/l.
- A Schedule 6 notification submitted to NRW on 11 October 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 21 September 2022 as 1.7 mg/l against the permit limit of 1 mg/l.
- A Schedule 6 notification submitted to NRW on 11 October 2022 gives the measured Ammoniacal Nitrogen result at monitoring point PWWBH16B on 22 September 2022 as 2.5 mg/l against the permit limit of 1 mg/l.

In all the above occasions the measure taken to stop emission reported stated “Permit variation submitted to adjust the trigger level within this borehole due to the locality of a mine that is thought to influence the chemistry of this borehole's water quality and the recorded result is below the proposed revised limit for BH11B which is 4.0mg/l.”

These are exceedance of the current permitted emission limits and represents **non-compliance** with the environmental permit. However the non-compliance score will be suspended pending determination of the permit variation submitted by the Operator on 15th August 2022. The score is suspended with the following caveat; if the impact of the exceedance changes, the “permission” is limited to the specifics of this instance, it is time limited and if the application is not successful the scores will be applied retrospectively.

Compliance: The above results are in exceedance of the emission limits set in the permit for BH11B and BH16B and contrary to condition 3.1.2. A non-compliance score of C3 against sub-criteria E2 has been allocated to these breaches over the Q3 July to September reporting period.

In accordance with NRW's non-compliance scoring guidance, the non-compliance scores for the breaches during Quarter 3 2022 reporting period have been consolidated into one non-compliance score.

Schedule 6 Notifications – Leachate Levels - Q3 July to September 2022

A Schedule 6 notification submitted to NRW on 29 July 2022 gives the measured leachate level result at, PWLMW2B, PWLMW3SB, PWLMW4NB on 27 July 2022 as exceeding the 160.47, 160.40, 159.78AOD limits giving measured values of 161.28, 162.85 and 169.26 respectively. These are exceedances of permitted emission limits and represents non-compliance with the environmental permit. Measure taken to stop emission reported "Suspected sludge/debris build up causing a blockage in these wells especially Well PWLMW4NB - to be investigated"

A Schedule 6 notification submitted to NRW on 8 September 2022 gives the measured leachate level result at, PWLMW2B, PWLMW3SB, PWLMW4NB on 23 August 2022 as exceeding the 160.47, 160.40, 159.78AOD limits giving measured values of 161.28, 162.87 and 169.76 respectively. These are exceedances of permitted emission limits and represents non-compliance with the environmental permit. Measure taken to stop emission reported "blockage in wells PWLMW2B and PWLMW3SB under investigation, suspected silting. Well PWLMW4NB solid scale blockage under investigation."

A Schedule 6 notification submitted to NRW on 4 October 2022 gives the measured leachate level result at, PWLMW3SB, on 23 September 2022 as exceeding the 160.40AOD limits giving measured values of 161.57. These are exceedances of permitted emission limits and represents non-compliance with the environmental permit. Measure taken to stop emission reported "Blockage in well PWLMW3SB, suspected silting from rodding exercise. Under further investigation"

Confirmation was received from the operator that the leachate wells do not have pumps, only the sidewall risers, which are kicking in and out as the cells are empty, again suggesting the issues are in the dip equipment not in actual leachate head.

The findings of these investigations are ongoing and operator asked to keep regulating officer updated of outcomes. The Schedule 6 notifications have not been compliance assessed at this time.

Schedule 6 Notifications – Gas Monitoring - Q3 July to September 2022

A Schedule 6 notification submitted to NRW on 21 July 2022 gives the measured carbon dioxide result at monitoring point PWG0017 on 6 July 2022 as 1.7% vol against the permit limit of 1.5% vol above background concentrations. Measure taken was stated as "Permit variation being undertaken to adjust the trigger level within these boreholes"

A Schedule 6 notification submitted to NRW on 18 August 2022 gives the measured carbon dioxide result at monitoring point PWG0016 and PWGP0017 on 17 August 2022 as 9.4% vol and

5.7% vol respectively, against the permit limits of 8.1% vol and 1.5% respectively above background concentrations. Measures taken were stated as "GRA submitted for permit variation. Re-balance gasfield"

This is an exceedance of permitted emission limits and represents a breach of the environmental permit. As per the agreed ICOP and compliance approach we will score a breach of a carbon dioxide compliance limit as having no environmental impact (actual or potential) applying a non-compliance score of C4.

Compliance: The above results are in exceedance of the emission limits set in the permit and contrary to condition 3.3.5. A non-compliance score of C3 against sub-criteria E1 has been allocated to these breaches over the Q3 July to September reporting period.

In accordance with NRW's non-compliance scoring guidance, the non-compliance scores for the breaches during Quarter 3 2022 reporting period have been consolidated into one non-compliance score.

A Schedule 6 notification submitted to NRW on 18 August 2022 gives the measured methane result at monitoring point PWG0016 a on 17 August 2022 as 4.7% vol against the limit of 1.0% vol. Measure taken "GRA submitted for permit variation. Re-balance gasfield"

This is an exceedance of permitted emission limits and represents **non-compliance** with the environmental permit.

As this is the first non compliance the breach in the last 6 months it will be scored, however any ongoing breaches identified at this borehole in coming months whilst permit determination is ongoing will be suspended as per GW principles outlined above.

Compliance: The above results are in exceedance of the emission limits set in the permit and contrary to condition 3.3.5. A non-compliance score of C3 against sub-criteria E1 has been allocated to this breach for the Quarter 3 2022 reporting period.

2022 - Quarter 4 Monitoring

Schedule 6 Notifications - Groundwater - Q4 October to December 2022

- A Schedule 6 notification submitted to NRW on 1 November 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 20th October 2022 as 1.7mg/l against the permit limit of 1 mg/l.
- A Schedule 6 notification submitted to NRW on 28 November 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 11 November 2022 as 1.7 mg/l against the permit limit of 1 mg/l.

- A Schedule 6 notification submitted to NRW on 9 January 2022 gives the measured Ammoniacal Nitrogen result at monitoring point BH11B on 1 December as 1.4 mg/l against the permit limit of 1 mg/l.

In all the above occasions the measure taken to stop emission reported stated “Permit variation submitted to adjust the trigger level within this borehole due to the locality of a mine that is thought to influence the chemistry of this borehole's water quality and the recorded result is below the proposed revised limit for BH11B which is 4.0mg/l.”

These are exceedance of the current permitted emission limits and represents **non-compliance** with the environmental permit. However the non-compliance score will be suspended pending determination of the permit variation submitted by the Operator on 15th August 2022. The score is suspended with the following caveat; if the impact of the exceedance changes, the “permission” is limited to the specifics of this instance, it is time limited and if the application is not successful the scores will be applied retrospectively.

Compliance: The above results are in exceedance of the emission limits set in the permit for BH11B and are contrary to condition 3.1.2. A non-compliance score of C3 against sub-criteria E2 has been allocated to these breaches over the Q4 October to December reporting period.

In accordance with NRW's non-compliance scoring guidance, the non-compliance scores for the breaches during Quarter 4 2022 reporting period have been consolidated into one non-compliance score.

Schedule 6 Notifications – Leachate Levels - Q3 October to December 2022

Schedule 6 notifications submitted to NRW on 31 October 2022 and 29 November 2022 give the measured leachate level result at PWLMW3SB and PWLMW4NB on 26 October 2022 as exceeding the 159.78 and 160.40 mAOD limits giving measured values of 162.27 and 169.76. These are exceedances of the permitted emission limits and represents non-compliance with the environmental permit. Measures taken to stop emission reported “Well PWLMW4NB solid scale blockage at 24m under investigation” and “Blockage in well PWLMW3SB, suspected silting from rodding exercise. Under further investigation”

Schedule 6 notifications submitted to NRW on 28 and 29 November 2022 gives the measured leachate level result at PWLMW3SB, PWLMW4NB on 23 November 2022 as exceeding the 159.78 and 160.40 mAOD limits giving measured values of 162.37 and 169.76 respectively. These are exceedances of permitted emission limits and represents non-compliance with the environmental permit. Measure taken to stop emission reported same as those for October 2022.

A Schedule 6 notification submitted to NRW on 16 December 2022 gives the measured leachate level result at PWLMW3SB and PWLM4NB on 15 December 2022 as exceeding the 159.78 and

160.40 mAOD limits giving measured values of 162.36 and 169.76 respectively. These are exceedances of permitted emission limits and represents non-compliance with the environmental permit. Measure taken to stop emission reported "Well PWLMW4NB solid scale blockage at 24m, Well PWLMW3SB silted investigated"

The findings of these investigations are ongoing and operator asked to keep regulating officer updated of outcomes. The Schedule 6 notifications have not been compliance assessed at this time.

Schedule 6 Notifications – Gas Monitoring - Q3 October to December 2022

A Schedule 6 notification submitted to NRW on 31 October 2022 gives the measured carbon dioxide result at monitoring points PWGB00HE, PWGP0016 on 26 October 2022 as 1.6% and 9.2% vol against the permit limits of 1.5% and 8.2% vol respectively above background concentrations. Measure taken was stated as "GRA submitted for permit variation. Re-balance gasfield"

A Schedule 6 notification submitted to NRW on 16 January 2023 gives the measured carbon dioxide result at monitoring point PWGB00HD and PWGB00HE on 25 November 2022 as 2.4% vol and 2.6% vol respectively, against the permit limits of 1.5% vol above background concentrations. Measures taken were stated as "ICoP for CO2 submitted to adjust the trigger level within these boreholes and the recorded result is below the proposed revised limit for PWGB00HD, which is 5.5(%v/v) and for PWGB00HE which is 4.5(%v/v). Rebalance gasfield."

A Schedule 6 notification submitted to NRW on 9 January 2023 gives the measured carbon dioxide result at monitoring point PWGB00HD and PWGB00HE on 23 December 2022 as 3.4% vol and 3.7% vol respectively, against the permit limits of 1.5% vol above background concentrations. Measures taken were stated as "ICoP for CO2 submitted to adjust the trigger level within these boreholes and the recorded result is below the proposed revised limit for PWGB00HD, which is 5.5(%v/v) and for PWGB00HE which is 4.5(%v/v). Rebalance gasfield."

This is an exceedance of permitted emission limits and represents a breach of the environmental permit. As per the agreed ICOP and compliance approach we will score a breach of a carbon dioxide compliance limit as having no environmental impact (actual or potential) applying a non-compliance score of C4.

Compliance: The above results are in exceedance of the emission limits set in the permit and contrary to condition 3.3.5. As a result of this breach, a consolidated non-compliance score of C3 has been recorded against compliance sub-criteria E1.

In accordance with NRW's non-compliance scoring guidance, the non-compliance scores for the breaches during Quarter 4 2022 reporting period have been consolidated into one non-compliance score.

2022 - Annual Reporting

The annual reporting data specified in conditions 4.2 a) to k) Reporting was received from the operator, including other annual reporting requirements specified by Schedule 5 of the permit.

Note: This CAR report and assessment was actually undertaken on 14th Feb 2023. However to ensure that the non-compliance score is attributed to the correct financial year, the date on CARS system and on this CAR report has been presented as 31st Dec 2022.

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.