

Compliance Assessment Report CAR_NRW0043507

Permit being assessed: AP3739KS.

For: Brookhill Landfill Site EPR/AP3739KS, **held by:** Flintshire County Council

At: BROOK HILL LFS PINFOLD INDUSTRIAL ESTATE , BUCKLEY, BUCKLEY, CLWYD, CH7 3PL.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 31/12/2023.

Parts of permit assessed: See Below.

NRW Lead Officer: Philip Harper.

Report sent to: Ruth Tulley/ Paul Murphy, Regulatory Services Manager/ FCC Landfill Manager, on 21/02/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2K - Operations - Landfill gas management (only applicable to landfill)	Assessed (A)	
IR2I - Operations - Leachate levels (only applicable to landfill)	C3 Minor	2.7.1
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.5
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.5
IR3E - Emissions and monitoring - Monitoring	C3 Minor	3.5.1
IR1A - Management - General management	C3 Minor	1.1.1
IR3E - Emissions and monitoring - Monitoring	C3 Minor	3.5.1
IR1A - Management - General management	Action only (X)	
IR4B - Information - Reporting	Action only (X)	
IR1A - Management - General management	C3 Minor	1.1.1(a)

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

Total non-compliances recorded	Total non-compliance score
7	28

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
IR2I	See actions in main text.	29/03/2024
IR3A	See actions in main text	31/03/2024
IR3A	See actions on main text	31/03/2024
IR3E	See actions in main text	Already completed
IR1A	See actions in main text	Already completed
IR3E	See actions in main text	Already completed
IR1A	See actions in main text	Already completed
IR4B	See actions in main text	Already completed
IR1A	See Actions in main text	30/04/2024

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.

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

This Compliance Assessment Report follows a review of monitoring data for Q4 and annual reporting for the 2023 period.

Quarterly Monitoring of Results - Q4 (October– December), due 31st December 2023.

Quarter 4 monitoring data for Brookhill Landfill Site, Pinfold Industrial Estate, Buckley, Clwyd, CH7 3PL was submitted to Natural Resources Wales in accordance with permit condition 4.2.2 on the 15th February 2024

following an agreed extension.

IR2K Landfill Gas

Methane and Carbon dioxide levels did not exceed the permitted limits in offsite monitoring boreholes during the review period.

It was noted in the report that oxygen levels greater than 5 % have been observed in gas wells across the site. These are being managed in accordance with the gas management plan.

IR2I Leachate Levels

Leachate level breaches over the 2m and 3m above base limits occurred in all cells apart from Cell 3 which remained compliant throughout the quarter. The leachate maximum rest levels, above the compliance levels, were as follows: Cell 1 (1.27 m), Cell 2 (10.03 m), Cell 4 (0.31 m), Cell 5 (1.49 m) and Cell 6 (2.12 m).

A **category 3** score has been applied against permit condition 2.7.1 “For the following activities referenced in schedule 1, table S1.1 (A1.) The limits for the level of leachate listed in schedule 3 table S.1 shall not be exceeded”.

Action 1: Provide an explanation for the leachate levels observed at Cell 2 BK LC 2B in December 2023 by the 28th March 2024.

Action 2: Continue to manage levels by extracting leachate from site.

IR3A Leachate Quality

Leachate quality has been reported as described by permit condition 3.5.1(a) Schedule 3.8. No permit breaches have been identified.

IR3A Groundwater Levels

Groundwater levels were recorded monthly with levels reflecting seasonal trends.

IR3A Groundwater Emissions

The sampling of groundwater was undertaken monthly as stated in permit condition 3.5.1 Schedule 3 Table 3.9.

The following emissions limit breaches were observed, maximum measured concentration provided in each case:

GW2A: ammoniacal nitrogen 5.42 mg/L compared to permitted limit of 1.7 mg/L, Chloride 101 mg/L compared to permitted limit of 60 mg/L.

GW3A: ammoniacal nitrogen 6.58 mg/L compared to permitted limit of 1.7 mg/L, Chloride 84 mg/L compared

to permitted limit of 60 mg/L.

GW4A: ammoniacal nitrogen 5.94 mg/L compared to permitted limit of 1.7 mg/L.

A category 3 score has been applied in response to a limit breach of ammoniacal nitrogen against permit condition 3.1.5 “For the following activities referenced in schedule 1, table S1.1 (A1.) The trigger levels for emissions into groundwater for parameters and monitoring points set out in schedule S3.4. shall not be exceeded”.

A category 3 score has been applied in response to a limit breach of chloride against permit condition 3.1.5 “For the following activities referenced in schedule 1, table S1.1 (A1.) The trigger levels for emissions into groundwater for parameters and monitoring points set out in schedule S3.4. shall not be exceeded”.

No other breaches were identified.

Action 3: Continue to monitor trends. As per previous CAR forms and advice, consider varying the trigger limits for these boreholes.

IR3A Surface Water

Surface water data from P4 indicates that permitted surface water emissions limits set for P2 have been exceeded. However, no emission limits have been set for P4.

No other surface water samples could be obtained.

No breach identified.

IR3A Emissions to Sewer

The quality of leachate which was discharged to the Welsh Water sewage network was reported as described by permit condition 3.5.1(g) Schedule 3.11. All parameters were compliant with the Welsh Water discharge consent.

IR3A Dust

Dust monitoring has been undertaken in accordance with permit condition 3.5.1. No breaches have been observed.

IR3E Monitoring of Emissions and the Environment

Monitoring has been undertaken in accordance with Condition 3.5 and schedule 3 of the permit.

IR4B Reporting and Notification to Natural Resources Wales

A report presenting monitoring data for Q4 2023 has been received as specified by permit condition 4.2.5.

Completed Schedule 5 notifications for permit breaches with regard to ground water quality have been

received in line with permit condition 4.3.1.

Annual Report

Leachate

Annual leachate sampling was undertaken during December 2023 in accordance with Condition 3.5.1(a) and Table S3.8.

Leachate levels remain above compliance limits across wells at the site. Breaches have been identified within CAR forms relating to quarterly monitoring for 2023.

The base of the leachate wells were dipped in December 2023.

Point Source Emissions

Condition 3.5.1(b) requires annual point source emission monitoring to be undertaken, as specified in Table S3.2. The submitted report states that the landfill gas engine was monitored on the 6th February 2023. This reporting date was reported as the monitoring which corresponds to 2022. Therefore, annual monitoring data has not been submitted for the reporting year 2023.

The operator was reminded of the monitoring requirement in CAR_NRW0039355 which was issued to the operator the 18th February 2022 and in CAR_NRW0042170 which issued to the operator on the 3rd August 2023.

Compliance assessment report CAR_NRW0042170 explicitly stated the following

“NB: Separate annual reporting is required for 2023 and the above information cannot be submitted as part of the 2023 annual review.”

A category 3 breach of permit Condition 3.5.1 has been applied under subheading IR3E Monitoring as the point source emission monitoring was not undertaken.

Repeated failure to undertake the monitoring as required by the permit indicates that the site is not being managed in accordance with a suitable robust management system and is not being operated by competent personnel.

A category 3 breach of permit Condition 1.1.1 has been applied under subheading IR1A.

Action 4: Ensure monitoring is undertaken in accordance with the permit and review when it is scheduled to minimise any impacts caused by delays.

Groundwater

Annual groundwater sampling was undertaken during December 2023. The operator has reported that at present, there is an issue with the third party sample testing house and that the results of the hazardous substance suite will be forwarded as soon they become available.

Action 5: On receipt of the data, forward without delay.

Trace Gas Monitoring

Condition 3.5.1(d) requires landfill gas monitoring as specified in Table S3.7 to be undertaken annually. The submitted report states that trace gas analysis was undertaken on the 27th March 2023. Trace gas analysis was not undertaken at the site during 2022 and was carried out on the 27th March 2023. Therefore, the data submitted by the operator for 2023 is actually the trace gas analysis which corresponds to the reporting year for 2022.

The operator was reminded of the permitted requirement to undertake annual trace gas monitoring in CAR_NRW0039355 which was issued to the operator the 18th February 2022 and in CAR_NRW0042170 which issued to the operator on the 3rd August 2023.

A category 3 breach of permit Condition 3.5.1 has been applied under subheading IR3E Monitoring as the trace gas monitoring was not completed.

Repeated failure to undertake the monitoring as required by the permit indicates that the site is not being managed in accordance with a suitable robust management system and is not being operated by competent personnel.

A category 3 breach of permit Condition 1.1.1(a) has been applied under subheading IR1A. This has been consolidated with an earlier score against permit condition 1.1.1(a) for monitoring.

Action 6: Ensure monitoring is undertaken in accordance with the permit and review when it is scheduled to minimise any impacts caused by delays.

Annual Production/ Treatment

Permit condition 4.2.2(b) and Table S4.3 requires that the energy consumption at the site is reported. The report states that this information was not available at the time of report completion, therefore, it has not been provided.

Action 7: Report energy consumption data to NRW when it is available.

Topographical Survey

In accordance with permit condition 4.2.3(d-g) the topographical survey was undertaken on the 20th July 2023. The settlement between the survey in July 2022 and July 2023 is approximately 4,255 m³. As the site has been filled a calculation of remaining capacity has not been provided.

As requested previously, an assessment of the settlement behaviour of the landfill body has not been provided and should be included in future reports.

Repeated failure to submit an assessment of the settlement behaviour of the landfill body has attracted a category 3 breach of permit Condition 1.1.1(a) which has been applied under subheading IR1A.

Action 8: Ensure any assessments are included in future reports including how the levels link to the planned settlement of the site.

Action 9: Provide a written assessment which discusses the settlement behaviour of the landfill body by the **30th April 2024**.

Kind Regards

Phil Harper

Senior Industry and Waste Regulation Officer NE

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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.