

Compliance Assessment Report CAR_NRW0040038

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 carried out: Report/Data Review, Reason: Routine.

On 17/06/2022.

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 08/07/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Action only (X)	
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B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	2.7.1
E2 - Emissions - Land and groundwater	C3 Minor	3.1.5 Schedule 3.4
E2 - Emissions - Land and groundwater	C3 Minor	3.1.5 Schedule 3.4
E3 - Emissions - Surface water	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
E4 - Emissions - Sewer	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
A1	Investigate air ingress into the system and report findings to be submitted in report format by the 31st October 2022.	30/09/2022
A1	Submit data reflecting performance of the gas field, as	31/08/2022

Criteria	Action needed	Complete by
	detailed in the main text body.	
B1	Continue to manage levels by extracting leachate from site	Already completed
E2	Monitor ammoniacal Nitrogen trends. Consider permit variation.	31/07/2022
E2	Monitor chloride trends. Consider permit variation.	31/07/2022

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

Q1 January – March 2022 Monitoring Review.

A review of the monitoring returns for Brookhill Landfill Site, Pinfold Industrial Estate, Buckley, Clwyd, CH7 3PL, permit no EPR/AP3739KS was undertaken by Phil Harper, Senior Industry & Waste Regulation Officer on the 17th June 2022.

Quarterly monitoring returns for January – March 2022 were received by Natural Resources Wales in accordance with permit condition 4.2.2 on the 16th of May 2022 following an agreed extension.

A1 Specified by Permit

A1.1 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 % has been observed in wells across the site. Oxygen levels are shown below.

Boreholes that exceed 5% O2

BHGV0001 13.7 %

BHGV0008 19.9 %

BHGV0008 19.2 %

BHGV0013 20.2 %

BHGV0015 5.4 %

BHGV0016 20.9 %

BHGV0018 18.8 %

BHGV0022 9 %

BHGV0023 20.4 %

BHGV0030 17.2 %

BHGV0033 8.2 %

BHGV0038 18.5 %

BHGV0039 20.8 %

BHGV0040 14 %

BHGV0043 15.3 % (43 not shown on map)

BHGV0044 21.1 %

BHGV0045 7 %

BHGV0049 6.9 %

An average methane concentration of 13% was observed in borehole BHGV0044 . This is within the explosive limit for landfill gas.

Schedule 3.7 of the permit states that where oxygen level exceeds 5% v/v or where the addition of the carbon monoxide and methane percentages is less than 80 %, an assessment of air ingress into the system shall be undertaken. Where the concentrations of carbon monoxide exceeds 100 ppm further investigation shall be undertaken.

Action 1: Investigate gas wells with elevated oxygen and report findings in report format by the 30th September 2022.

CAR form CAR-NRW0039316 which was issued to the operator on the 16/02/2022 requested that average methane and carbon dioxide levels of wells being used for active gas extraction were presented in all future reports to ensure a representative picture of how the gas field is performing is provided. This has not been provided in the latest quarterly report.

Action 2: Ensure this information is provided in future reports.

B1 Leachate Limits

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 rest levels, above the compliance levels, were: Cell 1 (0.96 m), Cell 2 (0.62m), Cell 4 (0.58 m), Cell 5 (1.68 m) and Cell 6 (2.42m).

A **category 3** score has been applied in 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: Continue to manage levels by extracting leachate from site.

E2 Land and Groundwater

E2.1 Groundwater Levels

Groundwater levels were recorded monthly with levels reflecting seasonal trends.

E2.2 Groundwater Emissions

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

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

GW2A: ammoniacal Nitrogen **5.63 mg/L** compared to permitted limit of 1.7 mg/L, Chloride **107 mg/L** compared to permitted limit of 60 mg/L.

GW3A: ammoniacal Nitrogen **7.56 mg/L** compared to permitted limit of 1.7 mg/L, Chloride **130 mg/L** compared to permitted limit of 60 mg/L.

GW4A: ammoniacal Nitrogen **5.04 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 ammonical 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: Continue to monitor trends. As per previous CAR forms and advice, consider varying the trigger limits for these boreholes.

E3 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 breach identified.

E4 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 with the exception of ammoniacal nitrogen.

Leachate Quality

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

G1 Monitoring of Emissions and the Environment

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

G4 Reporting and Notification to Natural Resources Wales

A report presenting monitoring data for Q1 2022 has been received as specified by permit condition 4.2.5.

Presentation of Data

Incorrect dates were noted corresponding to key data within the report, this has since been rectified by the operator. In future ensure that correct dates are shown on data.

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.

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.