

Compliance Assessment Report CAR_NRW0037030

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 24/09/2020.

Parts of permit assessed: Q1 & Q2 2020 monitoring returns

NRW Lead Officer: Rebecca Harwood.

Report sent to: Paul Murphy, Site Manager on 14/10/2020.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	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	Condition 3.1.5
E2 - Emissions - Land and groundwater	C3 Minor	Condition 3.1.5
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	Condition 2.7.1
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	Condition 2.7.1

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

Total number of non-compliances recorded	Total non-compliance score
4	16

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	continue to monitor and review	31/10/2020
E2	continue to monitor and review	31/10/2020
B1	new site infrastructure in place, leachate levels improving – continue to monitor	31/10/2020
B1	new site infrastructure in place, leachate levels improving – continue to monitor	31/10/2020

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 and Q2 April – June 2020 monitoring reviews (*italics text provided*):

NB: In the quarterly returns Caulmert reference the previous permit numbers and variations (BV7273 and variation YP3835MJ). The permit was consolidated in November 2011 - AP3739KS V004, the annual report references this correctly. Please update future quarterly reports to reflect the correct permit number.

1. E1 Landfill gas

No methane or carbon dioxide breaches were reported for the routine weekly gas monitoring of perimeter boreholes BH1 to BH25.

In waste boreholes average concentrations of methane and carbon dioxide in the GV wells were 51% CH₄ & 50% CO₂ and 32% CH₄ & 33% CO₂ in Q1 and Q2 respectively.

Carbon monoxide concentrations were all below 100ppm in all wells in Q1 and below 20ppm in Q2.

Hydrogen sulphide concentrations generally remained below the limit of detection except for some low concentrations. In Q1 these ranged from 1 – 4ppm in GV12, GV14, GV15, GV26, GV32, GVA and GVB. In Q2 trace amounts were detected in GVC, GV17 and GV27, with 20ppm detected in LC04.

There is no reference to or analysis of in waste monitoring boreholes where oxygen exceeds 5% or where the addition of carbon monoxide and methane percentages are less than 80%, as indicated in Table S3.7.

Action: Please ensure the assessment of air ingress is addressed in future quarterly submissions.

2. E2 Emissions to land and groundwater

2.1 Groundwater levels

Groundwater levels were recorded monthly and in the main followed seasonal trends. The dry weather in April and May impacted on the decreases seen in Q2.

2.2 Groundwater quality boreholes GW1 – GW8

Q1 2020 - Exceedances for ammoniacal nitrogen >1.7mg/l were observed in GW2A,

GW3A and GW4 with maximum concentrations of 9.9mg/l, 9.54mg/l, and 11.3mg/l respectively. Exceedances for chloride >60mg/l were also observed in GW2A, GW3A and GW4 with maximum concentrations of 133mg/l, 168mg/l and 120mg/l respectively.

It is noted that there were no DO results in Q1 but were recorded in Q2.

Action: Please ensure in subsequent returns that DO results are obtained.

Q2 2020 - Exceedances for ammoniacal nitrogen >1.7mg/l were observed in GW2A, GW3A and GW4 with maximum concentrations of 15.5mg/l, 49.8mg/l, and 16.5mg/l respectively. Exceedances for chloride >60mg/l were also observed in GW2A, GW3A and GW4 with maximum concentrations of 82.2mg/l, 132mg/l and 136mg/l respectively.

Permit condition 3.1.5 Groundwater emission limits: In line with previous non-compliances Q1 and Q2 both attract a CCS3 for groundwater quality.

Action: Continue to monitor and review

3. E3 Emissions to surface water

'Surface water samples are taken from three locations, SW2, P2 and P4. Water flows in a northerly direction alongside the outside perimeter fence of the western boundary of the site and accumulates in a pond at SW2 before slowly seeping through a man-made underground bypass drain which runs along the outside of the site towards the northern boundary. P2 is a pond to the west, which collects surface water run-off from the landfill. P4 is in a field to the north west of the site, beyond landfill gas monitoring borehole BH10.'

Q1 2020 P2 was not sampled during this period (only sampled when likelihood of an overflow) and there was no sample from SW2. Monitoring point P4 - *Ammoniacal nitrogen concentrations ranged from below the detection limit (<0.2mg/l) to 1.2mg/l, with an average chloride concentration of 27.66mg/l (no limits specified).*

Q2 2020 No samples were taken from P2 or SW2. Monitoring point P4 - *Ammoniacal nitrogen concentrations were at or below the detection limit (<0.2mg/l) with the chloride concentrations averaging 34.2mg/l (no limits specified).*

4. Deposited dust monitoring

Q1 2020 - Dust monitoring was undertaken between the 04/03/2020 and the 08/04/2020 – there were no exceedances of the ELV.

Q2 2020 - Dust monitoring was undertaken between the 09/06/2020 and the 14/07/2020 – there were no exceedances of the ELV.

5. B1 Engineering for prevention and control of emissions – Leachate limits

As discussed with NRW, 'pumped' leachate levels are recorded after pumps are switched off for up to 4 hours before a dip is obtained. During this quarter, 'rest' levels of leachate were also recorded, which reflect the head of leachate after 48 hours of recovery (which has been demonstrated to be sufficient amount of time to reach rest, in accordance with report number 3448-VAU-XX-XX-RP-V-9107.A0-C11. The rest leachate levels are reported in relation to the compliance limits in Table 2 and plotted in Appendix 2.

There have been significant improvements in leachate levels across the site (with the additional extraction of leachate from gas wells - *Leachate heads within the gas wells continues to be well maintained (Appendix 2, Graph 5), with levels remaining stable throughout the review period and similar to the previous review period. The levels have remained low, while extraction rates are relatively stable, suggesting steady state conditions*), with exceedances starting to approach the limits in many cases and compliance achieved in wells in both Cells 2 and 3.

Q1 2020 - Leachate limit breaches occurred in 5 Cells: 1 (1.34m), 2 (0.89m), 4 (1.23m), 5 (2.53m) & 6 (2.89m), these are over the 2/3m above base limits. Levels within Cell 3 remained compliant throughout the quarter.

Q2 2020 - Leachate limit breaches occurred in 5 Cells: 1 (1.00m), 2 (0.93m), 4 (0.98m), 5 (2.23m) & 6 (2.79m), these are over the 2/3m above base limits. Levels within Cell 3 remained compliant throughout the quarter.

Permit condition 2.7.1 Leachate level limits: Non - compliances for Q1 and Q2 both attract a CCS3 for leachate levels.

Action: New site infrastructure in place, leachate levels improving – continue to monitor.

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.