

Compliance Assessment Report

Report ID:
CAR_NRW0034657

This form will report compliance with your permit as determined by an NRW officer

Site	Brookhill Landfill Site EPR/AP3739KS	Permit Ref	AP3739KS		
Operator/Permit holder	Flintshire County Council				
Regime	Installations				
Date of assessment	13/02/2019	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Q4 2018 Monitoring returns				
Lead officer's name	Oakes, Ian				
Accompanied by					
Recipient's name/position	Martyn Johnston / Paul Murphy / FCC/ Street Scene / Site Manager	Date issued	14/02/2019		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
E2 - Emissions - Land and groundwater	C3	Condition 3.1.4

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

O = Ongoing non-compliance, not scored.

Number of breaches recorded	1	Total compliance score (see section 5 for scoring scheme)	4
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If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Q4 October – December 2018 monitoring review:

1. E1 Landfill gas

No methane or carbon dioxide breaches were reported for the routine weekly gas monitoring of the perimeter boreholes BH1 to BH25. In waste boreholes average methane and carbon dioxide concentrations in the GV wells were 52 % and 33 % respectively. Hydrogen sulphide was detected once in GV48 at a concentration of 2 ppm and was undetected in all other locations.

Surface Emissions Monitoring Survey August 2018 Doc ref: 3444-CAU-XX-XX-RP-V-0302.A0-C1 comprising a Flame Ionisation Detector (FID) walkover. Methane range 50 – 2000 ppm with one point at 8,000 ppm (refer table below). Eleven of the thirteen detected emissions were from marked leachate or gas extraction wells, with the other two point source emissions (PSE) 4 and 11 coming from surface locations. These surface emissions were detected in grassy areas with no vegetation dieback.

Table 3.2: Summary of PSEs

PSE	ID/Location	Methane Concentration (ppm)	Source of Emission	Photographic Log Plate No.
1	GV18/GW34	50	Well base in concrete chamber	1,2
2	LC6	500	Well base in concrete chamber	
3	LC2B	1,000	Well head	3
4	Surface	1,000	Grassy area near the pond	
5	R3	50	Entirety of concrete chamber	4
6	LC3	2,000	Entirety of concrete chamber	5
7	GV38	1,000	Well head	6
8	GV37	500	Entirety of concrete chamber	7
9	GV35	800	Well head	8
10	LC4B	2,000	Well base in concrete chamber	9
11	Surface	500	Road near LC4B	10
12	R4b	2,000	Well head	11
13	R4	8,000	Well base in concrete chamber	12

It is noted that the report recommends that the well head works be serviced at all PSEs identified at specific wells, or within the chambers these wells are housed in. Fixtures such as pump connections, monitoring points, clamps, valves and the main head works seal should be serviced to improve the seal on these wells.

2. E2 Emissions to land and groundwater

2.1 Groundwater levels increased slightly across the site with the exception GW6 which saw a slight decrease during December.

2.2 Groundwater quality - Condition 3.1.4 Exceedances for ammoniacal nitrogen (1.7 mg/l) were observed in GW2A, GW3A and GW4 with maximums of 30.9, 124 and 7.89 mg/l respectively. Concentrations in other locations ranged <0.2 mg/l in GW6 to 41.9 mg/l in GW8. Exceedances for chloride (60 mg/l) in GW2A and GW3A with maximums of 152 and 137 mg/l respectively.

GW3 Toluene was detected at 1.13 mg/l in October. December was 0.00353 mg/l below the 0.004 mg/l limit. No toluene was detected elsewhere.

In line with previous non-compliance Q4 attracts a CCS3 for groundwater quality.

2.3 Annual Suite - Mineral Oil (>C10-C40) was detected in GW3A and GW4 at 0.306 and 0.144 mg/l respectively and is to be investigated further. Carbon tetrachloride was detected in GW8 at 0.00581 mg/l though undetected in the leachate.

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 and is only sampled when there is the likelihood of a discharge. P4 is in a field to the north west of the site, beyond landfill gas monitoring borehole BH10. P2 and SW2 were not sampled during the review period.

P4 ammoniacal nitrogen concentrations increased from the limit of detection <0.2 mg/l in October to 6.11 mg/l in December. Chloride ranged from 60.1 to 64.5 mg/l, pH ranged from 7.76 to 7.94 and suspended solids decreased from 4.2 mg/l in October to 3.7 mg/l in November and December.

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

4.1 Submission deadline for the interpretative report for the leachate extraction trials et al has been extended to the 28th February 2019.

4.2 Leachate levels - LC1B, LC2B, LC4B and LC6 and remote leachate monitoring points R1B, R2B, R3, R4B, R5 and R6B were recorded monthly. Well locations are shown on Drawing Number 3031-CAU-XX-XX-DR-O-1802.P1. No results for LC3 and LC5 are reported, as agreed with Natural Resources Wales on the 16th of April 2013. Trends are to be discussed as part of the ongoing investigation into leachate levels. All data is summarised in the 2018 Annual Review.

Cell 6 exceedances in LC6B throughout, all reported levels for R6B were compliant.

Cell 2 exceedances in R2B throughout, all reported levels for LC2B were compliant.

Cells 1 and 4 exceedances throughout.

Cell 5 R5 unsuitable, under review as part of interpretative report for the leachate extraction trials.

The method of recording and reporting leachate levels for the site is currently under review, following cessation tests carried out in March and August 2018. Future planned works will also evaluate the condition of the infrastructure on the site.

As previously noted, Natural Resources Wales acknowledges that significant works have / are being undertaken though the underlying problem with leachate levels continues. Due to the risk of significant foreseeable pollution Q4 is to be consolidated with Q3 CCS2 as per CAR_NRW0034315 issued 5 December 2018 Condition 2.7.1... The limits for the level of leachate...

Q4 leachate limit breaches in cells 1, 2, 4 & 6 (no data cell 5) from 2.51 – 4.80 m vs 2/3 m limits.

Action: Submit interpretative report for the leachate extraction trials et al by 28th February 2019.

Table 3: Leachate Head Data (exceedances highlighted in yellow)

Landfill Cell	Monitoring Point	October (m above base)	November (m above base)	December (m above base)	Compliance Limit
Cell 1	BK LC 1B	2.51	2.51	2.51	2
	BK R1 B	2.60	2.61	2.60	
Cell 2	BK LC 2B	2.10	2.10	2.11	3
	BK R2B	4.80	4.77	4.78	
Cell 3	BK R3	1.21	1.19	1.18	3
Cell 4	BK LC 4B	3.14	3.15	3.16	3
	BK R4B	3.98	3.97	3.94	
Cell 6	BK LC 6B	3.63	3.66	3.64	2
	BK R6B	1.64	1.68	1.69	

EPR Compliance Assessment Report

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Site	Brookhill Landfill Site EPR/AP3739KS	Permit Ref	AP3739KS
Operator/Permit holder	Flintshire County Council	Date	13/02/2019

Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition.

Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			
E2	C3	Submit interpretive report for the leachate extraction trials et al.	28/02/2019

Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General information

Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.