

## Compliance Assessment Report

Report ID:  
CAR\_NRW0035743

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           | 30/09/2019                                       | Time in     | N/A        | Out | N/A |
| Assessment type              | Report/Data Review                               |             |            |     |     |
| Parts of the permit assessed | Q1and Q2 2019 Monitoring returns and trial works |             |            |     |     |
| Lead officer's name          | Oakes, Ian                                       |             |            |     |     |
| Accompanied by               |                                                  |             |            |     |     |
| Recipient's name/position    | Paul Murphy/ Site Manager                        | Date issued | 30/09/2019 |     |     |

### 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 |
|---------------------------------------------------------------------------|--------------|-----------------------|
| B1 - Infrastructure - Engineering for prevention and control of emissions | C3           | 2.7.1                 |
|                                                                           | C3           | 2.7.1                 |
| E2 - Emissions - Land and groundwater                                     | C3           | 3.1.5                 |
|                                                                           | C3           | 3.1.5                 |

**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.

|                                    |          |                                                                     |           |
|------------------------------------|----------|---------------------------------------------------------------------|-----------|
| <b>Number of breaches recorded</b> | <b>4</b> | <b>Total compliance score</b><br>(see section 5 for scoring scheme) | <b>16</b> |
|------------------------------------|----------|---------------------------------------------------------------------|-----------|

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

Q1 January – March and Q2 April – June 2019 monitoring reviews (*italics text provided*):

### 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 methane and carbon dioxide in the GV wells were 48% & 45% and 32% & 29% in Q1 and Q2 respectively.

Hydrogen sulphide concentrations generally remained below the limit of detection except for some low concentrations ranging 1 – 4 ppm in M050MA, GV29, 33, 37, 47 & 48.

### 2. E2 Emissions to land and groundwater

#### 2.1 Groundwater levels

Q1 Groundwater levels were recorded on the 15 January, 1 March and 4 April 2019 and remained stable and followed seasonal trends.

Q2 Groundwater levels were recorded between 1 May and 4 July 2019 and had generally decreased by 1 m in all but a few locations.

#### 2.2 Groundwater quality boreholes GW1 – GW8

Q1 2019 Exceedances for ammoniacal nitrogen >1.7 mg/l were observed in GW2A, GW3A and GW4 with maximum concentrations of 9.96, 42.3 and 6.23 mg/l respectively. Q1 Exceedances for chloride >60 mg/l were also observed in GW2A, GW3A and GW4 with maximum concentrations of 129, 143 and 62.3 mg/l respectively.

Q2 2019 Exceedances for ammoniacal nitrogen >1.7 mg/l were observed in GW2A, GW3A and GW4 with maximum concentrations of 5.76, 12.3 and 5.5 mg/l respectively. Q2 Exceedances for chloride >60 mg/l were also observed in GW2A, GW3A and GW4 with maximum concentrations of 120, 149 and 60.1 mg/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: To be re-assessed as part of the 2019 annual monitoring report (provide data in advance).

### 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 2019 P2 was not sampled during this period (only when likelihood of an overflow) and none from SW2. Ammoniacal nitrogen concentrations at P4 in February and April were 6.11 mg/l and 2.74 mg/l with an average chloride concentration of 50.4 mg/l (no limits specified).

Q2 2019 No samples were taken from P2 or SW2. Ammoniacal nitrogen concentrations at P4 sampled 3 times ranged from 1.17 mg/l to 3.14 mg/l with the chloride concentrations averaging 46.1 mg/l (no limits specified).

#### 4. Deposited dust monitoring

Data was provided for a 30 day period 3 June to 3 July 2019 at the 3 nominated locations with results for OES1 – 3 of 19.76, <4.12 and 4.12 mg/m<sup>2</sup>/day respectively versus a 200 mg/m<sup>2</sup>/day limit.

NB: These needs to be reported quarterly.

NNB: 'Location 2 location changed to access issues with fencing surrounding LTP. Dust gauge now located near to electricity meter house.'

#### 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 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'

There have been significant improvements in leachate levels across the site (additional extraction of leachate from gas wells) with exceedances starting to approach the limits in many cases and compliance achieved in cells 2 & 3.

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

Q1 2019 Leachate limit breaches in the 6 cells: 1, 2, 4, 5 & 6 of 1.1, 1.5, 1.6, 4.0 and 1.4 m over 2/3 m limits, and Q2 2019 Leachate limit breaches in the 6 cells: 1, 4, 5 & 6 of 1.2, 1.5, 2.4 and 1.7 m over 2/3 m limits.

Action: Provide a 2019 annual monitoring report that details all trial work including a review of your findings, recommendations and options to further improve compliance with permitted leachate levels (provide data in advance).

It is noted that: 'Future work is planned to continue investigating the lowest, practically achievable leachate levels in each well, and to determine the requirements of further infrastructure'.

Q1 2019

**Table 2 – Rest Leachate Levels (mAOD) (exceedances of the EP limit are shown in yellow)**

| Landfill Cell | Monitoring Point | 19/01/2019        | 29/03/2019 | Compliance limit |
|---------------|------------------|-------------------|------------|------------------|
| Cell 1        | LC1              | 131.1             |            | Blocked          |
|               | LC1B             | 119.8             |            | 118.97           |
|               | BK R1 B          | 120.1             | 120.2      | 118.97           |
| Cell 2        | LC2B             | 115.8             |            | 115.97           |
|               | BK R2B           | 117.6             | 117.6      | 115.11           |
| Cell 3        | BK R3            | 112.4             | 112.6      | 113.37           |
| Cell 4        | LC4B             | 115.8             |            | 114.97           |
|               | BK R4B           | 117.4             | 117.4      | 115.57           |
| Cell 5        | LC5              | 123.2             |            |                  |
|               | R5               | 118.2             | 118.2      | 115.88           |
| Cell 6        | BK LC 6B         | Erroneous reading | 125.0      | 121.97           |
|               | BK R6B           | 123.0             | 123.0      | 122.51           |

Q2 2019

**Table 2 – Rest Leachate Levels (mAOD) (exceedances of the EP limit are shown in yellow)**

| Landfill Cell | Monitoring Point | 19.04.19 | 25.05.19 | 04.07.19 | Compliance limit |
|---------------|------------------|----------|----------|----------|------------------|
| Cell 1        | LC1              |          | 131.09   |          | Blocked          |
|               | LC1B             | 120.3    | 120.39   | 120.28   | 119              |
|               | BK R1 B          | 120.15   | 120.13   | 120.12   | 119              |
| Cell 2        | LC2B             | 116.15   | 116.18   | 116.17   | 117              |
|               | BK R2B           | 117.61   | 117.58   | 117.57   | 117              |
| Cell 3        | BK R3            | 112.63   | 112.75   | 112.62   | 113.37           |
| Cell 4        | LC4B             | 116.14   | 116.17   | 116.15   | 115              |
|               | BK R4B           | 117.54   | 117.52   | 117.48   | 115.6            |
| Cell 5        |                  |          |          |          |                  |
|               | R5               | 118.27   | 118.31   | 118.26   | 115.91           |
| Cell 6        | BK LC 6B         | 124.92   | 124.99   | 124.83   | 122              |
|               | BK R6B           | 123.02   | 122.04   | 123.04   | 122.24           |

## EPR Compliance Assessment Report

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CAR\_NRW0035743**

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

|                        |                                         |            |            |
|------------------------|-----------------------------------------|------------|------------|
| Site                   | Brookhill Landfill Site<br>EPR/AP3739KS | Permit Ref | AP3739KS   |
| Operator/Permit holder | Flintshire County Council               | Date       | 30/09/2019 |

### 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 |              |                                                                                                                                                                                                                              |            |
| B1                  | C3           | Provide a 2019 annual monitoring report that details all trial work including a review of your findings, recommendations and options to further improve compliance with permitted leachate levels (provide data in advance). | 31/01/2020 |
| B1                  | C3           | Provide a 2019 annual monitoring report that details all trial work including a review of your findings, recommendations and options to further improve compliance with permitted leachate levels (provide data in advance). | 31/01/2020 |
| E2                  | C3           | To be re-assessed as part of the 2019 annual monitoring report (provide data in advance).                                                                                                                                    | 31/01/2020 |
| E2                  | C3           | To be re-assessed as part of the 2019 annual monitoring report (provide data in advance).                                                                                                                                    | 31/01/2020 |

## 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](mailto: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.