

Compliance Assessment Report

Report ID:
CAR_NRW0032920

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	19/02/2018	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Recent correspondance from site reference 3031-CAU-XX-XX-CO-V-9107.A0-C1 dated 10th Jan 2018				
Lead officer's name	Ellis, Rhys				
Accompanied by					
Recipient's name/position	Harvey Mitchell, Paul Murphy/ Site Manager. Streetscene Manager	Date issued	22/02/2018		

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
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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	0	Total compliance score (see section 5 for scoring scheme)	0
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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

Thank you for forwarding your detailed response and proposed actions. It is encouraging from the information provided that our concerns regarding leachate are being investigated.

Natural Resources Wales will summarise our comments under each section of your covering response letter 3031-CAU-XX-XX-CO-V-9107.A0-C1.

Section 1.

We have these initial responses to certain aspects of the response under section 1 (Natural Resources Wales responses are in italics)

4. Data collected in 2017

Only pumps in the R-series wells are fitted with pump counters.

NRW comments : Please can you confirm why all pumps are not fitted with pump counters? It is stipulated in letter reference 3031-CAU-XX-CO-V-9101-A0-C1 (dated 31st March 2017) that pulse counters were installed on each pump at Brookhill in March 2017.

It was also proposed in the above letter that a rain-gauge would be purchased and installed to allow correlation of rainfall vs leachate extraction for the site. Has this been installed?

Rest level repeats

In July 2017 it was attempted to obtain leachate levels representative of the head over the cell bases by ceasing pumping and monitoring for the rest leachate levels across the site. As noted in our letter to NRW, highlighted in the CAR form and discussed at the meeting, rest levels were not achieved within 48 hours. The test was terminated after this time to minimise possibility of adverse environmental impact as a result of decreased leachate extraction, however, the test was repeated to verify the observed behaviour and results. The repeat was done on a Cell-by-Cell basis to mitigate the impact of decreased pumping. By the time of the meeting, the test had been repeated in Cells 2, 3 and 4 (results are presented in Table 4 of the attached presentation. During the repeat, the head increase was significantly lower, than during the original test, rebounding a maximum of 1.83 m, in R2B. Despite the lower rebound, rest level was once again not achieved within the 48 hours (and the rate of recharge was relatively constant throughout the test, although lower than during the first test). The reasons for this difference are under investigation.

NRW comments : This test should be re-run with all pumps switched off until the resting level is found. If leachate levels are high within all cells then they are interconnected. The fact that your repeat cessation tests were done cell by cell is likely to explain the significantly lower results. Have you concluded your investigations into this matter?

The in-waste gas wells GV35 – GV49 installed in 2015 have been identified as potentially being suitable for leachate extraction. They were installed with a greater diameter pipe (160 mm diameter), which would allow the fitting of a leachate extraction pump. The pumps will be fitted with surface-laid pipework with configuration allowing the quantification of the leachate extracted from these wells combined. If pneumatic pumps are used, pulse counters fitted to each individual pump could provide further information regarding the recharge rates and the relative amount extracted from each well

NRW comments : Please note that these wells are prone to trapping pumps .The pneumatics are prone to breakdown and must be inspected at last every three days. Your Environment management system, daily checks and any other operational procedures should be updated to reflect this requirements and records of checks made available.

To the meeting on the 18th December, the test had been repeated in three cells of the site, Cells 2, 3 and 4. In all of them leachate levels rose, at a relatively constant rate throughout the test (there was no levelling off after 48 hrs as in the first test), however, the amount of rebound was significantly less, remaining less than 2 m in all tested wells

NRW comments : This could be due to the isolation of only a single cell and the effects of the pumping from the others if there was in hydraulic continuity. Hence the need for a full site cessation as mentioned above.

Section 2

Thank you for the detailed response to CAR forms actions. Some of the actions from this section have been summarised in section 3. Please see our comments below.

Section 3

Action 1: Installation of flow meters

Please provide confirmation of when these flow meters have been installed. It is unfortunate that recording flow on a cell by cell basis is not possible as this would have been useful information.

Action 2: Dip gas wells

You advised that prior pumping from these wells dips would be representative of 'rest' leachate levels in those wells.

You also advised that they are dipped monthly, to continue building up information relating to leachate dynamics at the site. Please note that these should be taken at the same time as when leachate levels are taken from other cells. (i.e when pumps in other cells are off).

You also advised that after commencing pumping these wells, pumping in these wells will need to be temporarily suspended for a period of time to allow rest levels in those wells to be achieved.

Action 3: Leachate pumping trial (Gas wells proposal)

NRW are yet to receive a plan for extraction from identified gas wells for comments. Please could you forward as soon as possible. It would be useful if this plan includes a schematic up to date plan of exact locations of cells and the location of the GV wells with pumps installed, and also a separate plan detailing current pumps in relation to the cells.

Coordination meeting.

Providing Natural Resources Wales agree with Layout of temporary system, provisions for flow measurement, pump and well head specifications and details of operations then we believe a meeting may not be required.

Action 4 – Implement leachate extraction trial.

This action is dependant on Action 3.

Action 5: Repeat cessation tests in cells 1,5 and 6.

This test should be carried out on all cells at the same time with all pumps switched off until the resting levels is found, this may involve continuing past the 48hr benchmark if levels don't stabilise. This would allow the operator to gain a representative idea of leachate heads. Further risk assessment of the situation cannot be undertaken until this is done.

The site alongside these tests should monitor groundwater parameters and levels before the cessation test is undertaken and during the test and once the leachate levels have stabilised. If there are any evidence /indication of contamination the site should cease the test, start pumping and notify Natural Resources Wales.

Please note : During this stage the results should be interpreted and shared with Natural Resources Wales. At this stage we will review the routine monitoring protocol for the site, where currently leachate levels are dipped within approximately 4 hours of switching the pumps off.

Compliance/enforcement and CCS scoring.

There are continual breaches of leachate limits. Some of these breaches have recently attracted a score of CCS 2. As stipulated during the meeting while you carry out these steps/improvements (Mainly Action 1 to 5) we will continue to record your site as non-compliant on our CCS database.

However, we are prepared to 'suspend' these ongoing breaches in relation to leachate limits so that they do not count towards your annual compliance rating providing an action plan is agreed.

Please see attached letter discussing the action plan together with action plan form. Please complete and return the attached Action Plan specifying your proposed actions with appropriate completion dates. Your proposals should be clearly set out, be achievable and be amended to reflect some of the comments mentioned above.

This action plan should not be submitted to Natural Resources Wales no later than 7th March 2018.

Once we agree with your proposals and timescales for action then we can suspend leachate level non-compliances for a period no longer than six months. However, we reserve the right to cancel the suspension and count all permit non-compliance towards your compliance rating should you fail to follow the actions specified, should you cause pollution to the environment, or if the leachate extraction trial has failed to improve leachate levels.

Actions 6 to 13.

Agreed in principle. However these actions are dependant on Actions 1-5, and therefore will be reviewed following the completion

of the preceding actions.

Other notes / discussion

With the site also working towards closure, NRW have a few queries and comments for the operator that need considering to help with this process:

1. Has the operator previously undertaken studies between increased pumping of leachate correlated against pollution markers in ground water boreholes?
2. Please provide details of internal bund heights between cells from the original design. This information will help to gain better understanding of the potential for linked hydraulic flows within the landfill and inform our risk assessment.
3. Given current considerations, NRW believe that the current agreement for a leachate levels in 5.5m in R3 should end. Going forward, the leachate level limits specified in the permit will apply. If you wish for the limit of 5.5m to be re-visited, please provide NRW with a report outlining the justification for this increased limit.
4. Please provide detail of what the lining system design was for the site and the capping for the whole site. Where there any differences from cell to cell or was it all installed as designed homogeneously?

Landfill Directive and up gradient boreholes.

1. The site monitoring infrastructure for groundwater is not Landfill Directive (LFD) compliant, therefore it cannot progress to definite closure under Article 13 of the LFD.
2. The Operator must install an up-gradient borehole(s) representing the aquifer(s) directly up-gradient of the landfill where there can be no possibility of influence from the landfill. This should be installed as soon as possible.
3. The data gathered from any borehole(s) must be indicative of all GW sources upstream and if there is more than one aquifer (i.e. non-contiguous aquifer) then another borehole would need to be installed to provide representative upstream samples.
4. The borehole must normally be sampled for a year to take into account the annual cycle, but in this case it might be possible to achieve the requirements of the LFD within a six month period by doubling the monitoring frequency

EPR Compliance Assessment Report

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Operator/Permit holder	Flintshire County Council	Date	19/02/2018

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.

We will now consider what enforcement action is appropriate and notify you, referencing this form.

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			

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.