

## Compliance Assessment Report

Report ID:  
CAR\_NRW0035337

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

Site	Astbury (Rossett) Landfill	Permit Ref	FP3894FP		
Operator/Permit holder	W R G Environmental Ltd				
Regime	Waste Operations				
Date of assessment	28/06/2019	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	See below				
Lead officer's name	Challender, Paul				
Accompanied by					
Recipient's name/position	Matthew Green/ Compliance Advisor	Date issued	31/07/2019		

### 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
A1 - Specified by permit	A	
B1 - Infrastructure - Engineering for prevention and control of emissions	X	
B2 - Infrastructure - Closure and decommissioning	X	
	X	
E1 - Emissions - Air	A	
E2 - Emissions - Land and groundwater	C3	Permit Condition 2.8.1, Table S3.1
E3 - Emissions - Surface water	A	
F1 - Amenity - Odour	A	
F2 - Amenity - Noise	A	
F3 - Amenity - Dust/fibres/particulates and litter	A	
F4 - Amenity - Pests/birds and scavengers	A	
F5 - Amenity - Deposits on road	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4	Permit Condition 4.2.2(d)
	C4	Permit Condition 4.2.2(c)
	C4	Permit Condition 4.2.3, Table S4.1

**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	4	Total compliance score (see section 5 for scoring scheme)	4.3
-----------------------------	---	---	-----

**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

This Compliance Assessment Report (CAR) has been written to assess the reports and data submitted to Natural Resources Wales (NRW) in the Annual Performance Report as required by permit condition 4.2.2 and the Quarterly Monitoring Report January 2019 to March 2019 as required by permit condition 4.2.3. Schedule 5 notifications submitted during this reporting period are also discussed.

### **Annual Performance Report:**

#### ***Permit Condition 4.2.2a - Annual monitoring data review***

The annual monitoring data review was submitted prior to the close of May as previously agreed with a prior regulating officer.

**Section 2.1** details External Landfill Gas Monitoring and mentions that external borehole GB01 is 'lost'. GB01 is a listed borehole in Schedule 3 Table S3.5 and Table S4.1. Monitoring of landfill gas at this borehole is a requirement of Permit Condition 3.5.1(d) and reporting of monitoring data is required by Permit Condition 4.2.3. Furthermore, condition 3.5.5 makes it a requirement for the operator to provide a permanent means of access to enable sampling/monitoring to be carried out at all emission points listed in Schedule 3.

As such this loss of GB01 is a non-compliance, however our telephone has clarified that monitoring cover is provided by the monitoring of boreholes EJ1, EJ2 & EJ3. The locations as provided in the Environmental Monitoring Plan map backs up that cover is currently deemed suitable.

**Action:** It is requested that you provide an explanatory statement outlining this change in monitoring in the next submitted Annual Monitoring Review rather than simply stating that it is 'lost'.

Although methane concentrations in excess of 1%v/v on 25 occasions variably at CABH02, GB02, GB06, GB07R, GB09, GB11, GB21 and NBH02 with a maximum concentration of 72.80%v/v at GB21, a continued reduction in migrating gas can be observed in the graph presented on page 3 of the submitted report. The operator attributes the reduction in gas emissions to pre-definite closure works conducted on the gas extraction system and flare during this reporting period.

**Section 2.3** details the In-Waste Gas Quality across the Astbury, Dark Lane and Paper Pulp landfills. Mean %v/v concentrations for methane, carbon dioxide and oxygen are given as 29.97, 16.78 and 10.66 respectively. These mean values are for the landfill site as a whole and measurements for individual gas wells is provided in the Quarterly Environmental Report.

As oxygen concentrations are recorded as a mean of 10.66%v/v with values at some gas wells peaking at or above 20.00%v/v when sampled on 07/01/19 (GW08, GW58, GW82, GW41, GW46, GW48, GW68, GW70, PP09, PP10 & PP11); values at these well remained high at these gas extraction points throughout the reporting quarter with several other gas wells giving readings between 5.00%v/v & 20.00%v/v.

**Action:** As recorded levels of oxygen are in excess of 5%v/v an assessment of air ingress into the system shall be performed as per the monitoring requirements stated in Table S3.7. Interpreted results of this assessment and any remedial action undertaken shall be submitted in the 1st July 2019 - 30th September 2019 Quarterly Environmental Monitoring Report. *NB: this action does take note of gas wells adjacent to Dark Lane being cracked open to eliminate gas migration to adjacent boreholes.*

**Section 2.4** details the Flare Stack Emissions. This section reports a reduction in gas quality at the input to the flare due to remedial works undertaken to mitigate against gas migration. Assessment of the landfill gas extraction system to improve gas quality by reduction of oxygen concentrations is requested as per the above action.

Trace gas analysis conducted in July 2018 is presented in Appendix 1 and has been reported in accordance with the listed priority trace components in LFTGN04.

Flare stack emissions monitoring reports that all emissions are within permitted limits.

**Landfill gas surface emissions:** It was expected to find interpreted data of landfill gas surface emissions of the permanently capped zone as specified by Schedule 3, Table 3.6 and monitored by the methods set out in LFTGN07 and reported quarterly as required by Table S4.1. This information was neither reported in the Quarterly Environmental Report January 2019 - March 2019 or in the Annual Environmental Monitoring Report.

The failure to report this information has been recorded as a breach of permit conditions:

- **(G4) Reporting & notifications to NRW. Permit Condition 4.2.3, Table S4.1. CCS Score 4.**

**Action:** Submit the results of landfill surface gas emissions of the permanently capped area as specified by Table S3.6 to NRW in the Quarterly Environmental Monitoring Report for April 2019 to June 2019.

**Section 3** reviews the groundwater impact at the closed landfill site. Although, groundwater is monitored with applicable determinands reported for the relevant monitoring frequencies listed in Tables S3.4 and S3.10 there is ambiguity around the number of boreholes sampled. It is acknowledged that only certain boreholes were sampled due to others being dry or possessing insufficient liquid to sample. However, the Quarterly Environmental Monitoring Report lists ten boreholes in the Upper Sand Unit and five boreholes in the Lower Sand Unit. Whereas, the Annual Environmental Monitoring Report lists twelve boreholes in the Upper Sand Unit and seven boreholes in the Lower Sand Unit.

**Action:** In the 1st July 2019 - 30th September 2019 Quarterly Environmental Monitoring Report, a clarification paragraph should be inserted into Section 3 Water Quality/Levels detailing the number of boreholes and their identification codes with an explanation to the discrepancy detailed above.

Downstream sampling of groundwater indicates Chloride levels are in excess of the drinking water standards at BH06B and CABH06.

**Section 4** - leachate levels are required by the permit to be maintained at a level that does not exceed 70.50mAOD. This limit was breached in the quarter for January 2019 to March 2019 and additional tankers were utilised to reduce leachate levels caused by the recent high rainfall. Please be aware however, that the submitted notification is titled Schedule 6 and this is the incorrect schedule number for your permit. The appropriate Schedule number for submitted notifications of breaches against your permit is Schedule 5.

A review of the leachate quality indicates that the leachate is of methanogenic origin and is becoming weaker.

The breach in leachate levels has generated the below CCS score:

- **(E2) Emissions - Land. Permit Condition 2.8.1, Table S3.1. CCS Score 3.**

**Action** - tankering operations should be conducted in a manner to mitigate against rises in leachate levels due to forecast adverse weather conditions.

**Section 5** details surface water monitoring and emission limits with all required parameters reported and no breaches of emission limits noted.

***Permit Condition 4.2.2b - Annual production/treatment***

All parameters are correctly reported as per the permit condition and Table S4.2.

***Permit Condition 4.2.2c - Topographical surveys***

The Annual Site Plan is appended to the report in Appendix 1. This site plan has the same drawing number of 461A075, same production date of 27.01.11, same drawer 'JAH' and same checker 'JP' as the site plan submitted in the Site Closure Report. Both drawings appear to have had the final digit date in their title amended. This would make it appear that the landfill site has either not had a topographic survey since 2011 or that the following annual survey results have not been processed into a new site plan for reporting purposes.

The lack of evidence for a completed topographic survey has generated the below CCS score:

- **(G4) Reporting & notification to NRW. Permit Condition 4.2.2(c). CCS Score 4.**

**Action:** Conduct and report a topographic survey of the site referenced to ordnance datum. Commission of this survey should be communicated to NRW and the produced site plan should be reported in the Annual Performance Report by 31st January 2020. *If the required topographic survey has already been conducted, captured data should be processed and the updated site plan submitted to NRW as an addendum to the Quarterly Environmental*

**Permit Condition 4.2.2d - Settlement Behaviour**

Height difference recorded for the reporting period is reported as a minimal change in elevation. All 4 settlement monitoring points are within the boundary of the Dark Lane area of the site only. The introduction to the Annual Environmental Monitoring Report states that this was addressed by Improvement Condition 9 which, required an improved Stability Risk Assessment. This is not the case and Permit Condition 4.2.2(d) is viewed as a yearly requirement to be reported which, should be based upon the topographic survey results presented as part of Permit Condition 4.2.2(c).

The lack of settlement assessment based on site wide, annual topographical survey has generated the below CCS Score:

- **(G4) Reporting & notification to NRW. Permit Condition 4.2.2(d). CCS Score 4.**

**Action:** submit a settlement behaviour assessment based upon topographic surveys. Commission of this survey should be communicated to NRW and the produced settlement assessment should be reported in the Annual Performance Report by 31st January 2020. *If the required topographic survey has already been conducted, captured data should be processed and the settlement assessment should be submitted to NRW as an addendum to the Quarterly Environmental Monitoring Report April 2019 - June 2019.*

Thank you for the submitted reports and notification.

Kind Regards,

Paul Challender

*In this document 'Natural Resources Wales' means the Natural Resources Body for Wales established by Article 3 of the Natural Resources Body for Wales (Establishment) order 2012.*

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0035337**

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

Site	Astbury (Rossett) Landfill	Permit Ref	FP3894FP
Operator/Permit holder	W R G Environmental Ltd	Date	28/06/2019

### 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.

### 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			
B2	X	In the 1st July 2019 - 30th September 2019 Quarterly Environmental Monitoring Report, a clarification paragraph should be inserted into Section 3 Water Quality/Levels detailing the number of boreholes and their identification codes with an explanation to the discrepancy in number of boreholes listed.	28/10/2019
B2	X	An assessment of air ingress into the system shall be performed as per the monitoring requirements stated in Table S3.7. Interpreted results of this assessment and any remedial action undertaken shall be submitted in the 1st July 2019 - 30th September 2019 Quarterly Environmental Monitoring Report.	28/10/2019
E2	C3	Tankering operations should be conducted in a manner to mitigate against rises in leachate levels due to forecast adverse weather conditions.	28/10/2019
G4	C4	Submit a settlement behaviour assessment based upon topographic surveys. Commission of this survey should be communicated to NRW and the produced settlement assessment should be reported in the Annual Performance Report by 31st January 2020. If the required topographic survey has already been conducted, captured data should be processed and the settlement assessment should be submitted to NRW as an addendum to the Quarterly Environmental Monitoring Report April 2019 - June 2019.	31/01/2020
G4	C4	Conduct and report a topographic survey of the site referenced to ordnance datum. Commission of this survey should be communicated to NRW and the produced site plan should be reported in the Annual Performance Report by 31st January 2020. If the required topographic survey has already been conducted, captured data should be processed and the updated site plan submitted to NRW as an addendum to the Quarterly Environmental Monitoring Report April 2019 - June 2019.	31/01/2020

		2019.	
G4	C4	Submit the results of landfill surface gas emissions of the permanently capped area as specified by Table S3.6 to NRW in the Quarterly Environmental Monitoring Report for April 2019 to June 2019.	28/07/2019
B1	X	Provide an explanatory statement regarding the replacement monitoring cover for the loss of GB01.	31/05/2020

## 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.