

EPR Compliance Assessment Report

Report ID: GP3830BG/0244757

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

Site	Chirk Landfill Site				Permit Ref	GP3830BG		
Operator/ Permit holder	FCC Waste Services (UK) Limited							
Date	29/07/2015				Time in	10:00	Out	13:30
What parts of the permit were assessed	Various							
Assessment	Site Inspection	EPR Activity:	Installation	X	Waste Op		Water Discharge	
Recipient's name/position	Colin Shaw (Site Manager)							
Officer's name	Stuart Ross, Tony Roberts				Date issued	31/07/2015		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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			Condition(s) breached
a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	A	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	A	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	N	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	A	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	A	
	2. Noise	N	
	3. Dust/fibres/particulates	A	
	4. Pests, birds & scavengers	A	
	5. Deposits on road	A	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	N	
	3. Maintenance records	N	
	4. Reporting & notification	N	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk), A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
------------------------------------	---	---	---

If the Total No Breaches is greater than zero, then please see Section 3 for details of 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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

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.

The purpose of this visit was to assess LFG emissions / collection and control. Discrete features such as gas and leachate extraction wells were surveyed for methane emissions using a Gazomat. LFG composition within gas wells was also measured in a number of wells using a GA2000.

The findings and associated actions are as follows (note: actions are in bold);

1. Gas Compound

Gas quality (methane content) had changed significantly since the morning reading taken at the compound by the Infinis Gas Technician. It had reduced from 49%v/v to 44%v/v. Furthermore the methane content has reduced since the last inspection in March 2015, dropping by approximately 10%v/v. **The cause of the reduction both on the day and over time should be investigated and findings reported to NRW.**

It is possible that the high recent rainfall has caused some of the wells to lose available slotting through perched leachate intrusion leading to increased suction in the vertical plane and a corresponding increase in air being pulled through the waste in some wells. There may also have been a change in the load demand by the engines which may have changed the extraction parameters in the field affecting the wells. This was partially borne out by the field readings in some of the new wells which were shut down or turned down by the gas technician pending further investigation. Atmospheric pressure effects were disregarded as the pressure was almost unchanged from the previous readings.

Although the volume extracted from the gas field was 1306 m³/hr. which shows a consistency of flow over the past 18 months, the calorific value has dropped significantly as described above. This means that the methane extracted from the site has been reduced by up to 20% (as a percentage of methane volume), the causes of this variation in methane concentration should be investigated. During the inspection both engines were operational generating 2050kw +/- 50kw, the flare was not operational.

2. Gas Field

Surface emissions from the landfill surface and discrete areas (e.g. boot details) were checked using a calibrated Gazomat methane detector which showed 2ppm as a background reading. Well analysis was performed using a calibrated GA 2000+ gas analyser. The NRW analyser was cross referenced with the one used by Infinis and found to be in agreement. The GA2000+ used by NRW officers had insufficient charge and the site GA 2000 was used to analyse the gas from the rest of the site.

In general the majority of the wells inspected showed good flow characteristics and overall fugitive emissions from the site were relatively low and comparable to those identified in March 2015. Many of the pipe runs and the falls in pipe-work were improved and some were of a high standard with short pipe runs to the gas mains and no obvious air leaks detected.

Gas quality from new or retro drilled gas wells (May 2015) was varied with some exhibiting good flow and gas composition whilst others had apparently experienced a collapse in gas quality subsequent to the balancing of the field on the previous day. The pin wells installed May 2015 were not inspected or sampled as they were largely covered by new waste. Some wells showed poor sealing at the base with gas leaking from between the pipe and the seal. This was particularly evident when the gas technician flexed the pipe resulting in an increased gas release.

GW252R (retro drill), - 6.88 mbar, 44.8% CH₄, 40.1% CO₂, 0.2% O₂, 14.6% BAL, 383ppm H₂S, 26ppm CO. Good flow. Gas quality has dropped from 52% CH₄ the day previous. Low fugitives detected in vicinity of well.

CHIW120 (new well), 29% CH₄, elevated balance gas. Methane content reduced from 55% the day previous. Well head suction reduced by site technician. Possible reduction in slotted pipe work - **we recommend that the well is dipped to determine liquid level and pumped if necessary. Also, cross check the gas pressure in the main previous to the methane reduction.**

CHIR121 (new well), - 8 mbar, 51% CH₄, 41% CO₂, 0.1% O₂, 8.2% BAL. 10ppm CH₄ detected from landfill surface at 1m from well. Good flow, high performing well.

CHIR17R2 (retro drill), 42.8% CH₄, 33.7% CO₂, 3% O₂, BAL 16.6%. Oxygen ingress. 10ppm CH₄ detected from landfill surface 1m from well.

GW122 (new well), 51.7% CH₄, 41.1 CO₂, 0% O₂, BAL 6.2%. Low fugitives in this area & good cover. Good flow, high performing well.

CHIR21 (new well), 15.9% CH₄, 20% CO₂, 5.9% O₂, BAL 57%. Methane content reduced from 35% day previous). This well has air infiltration and resealing should be undertaken with leak detection. The well should then be re-balanced to reduce the balance gas.

CHIW0076, 28% CH₄, CO₂ 19%, O₂ 11% BAL 40%. Well possibly sheared below ground level. **This well should be camera surveyed and if defective added to the next round of drilling. If the well is flooded with liquid pumping should be considered.**

PW93R (retro drill), -2.5 mbar, 60.3% CH₄, 42.4% CO₂, 0% O₂, 0% BAL. High concentration of methane with low flow means that this well could be flooded. **Please ensure it is dipped as soon as possible.**

PW91R (retro drill), -0.15 mbar, 59.3% CH₄, 42.5% CO₂, 0% O₂, BAL 0%, 65ppm CH₄ on cap anchor trench next to well. **Please see previous comment.**

CHIR0073 44% CH₄, 33% CO₂, 2.5% O₂, 19.9% BAL. Suction reduced by site technician.

CHIR0089, -34 mbar, 50% CH₄, 39% CO₂ (?), 9.9% BAL(?), 0.1% O₂. When the well head was moved in the bentonite seal a release of gas occurred with associated strong odour. 4.0% methane detected from well seal. **This well requires better sealing.**

CHIR80 (new well) 35% CH₄, 29% CO₂, 3.9% O₂, 30% BAL. Well turned off by technician due to elevated oxygen. **This well should be re-sealed and then re-balanced.**

CHIR079 (new well), -47mbar (?), 42.9% CH₄, 33.7% CO₂, 2.5% O₂, 28.8% BAL. Good flow.

Following the round of drilling in May 2015, a number of wells are now redundant due to adjacent retro drills. Please ensure these wells are de-commissioned as soon as practicable. It is understood that this is likely to occur in readiness for capping works planned August 2015.

FCC to submit proposals to NRW to address the issues highlighted / questions raised in this report within 2 weeks of the date of this report.

3. Capping Soils

Restoration soils have been placed on top of the existing cap to left of the access road between the weighbridge area and the gas compound. This is part of works to fill a void between the cap and the quarry edge. As detailed in my letter of 14/05/13, a CQA validation report must be provided to demonstrate that the soil thicknesses placed does not exceed that agreed in the CQA plan. I will accept the submission of a CQA validation report for this work as part of the wider CQA validation report for the capping works planned August/summer 2015.

Soils are yet to be placed on the area abutting the rock escarpment adjacent to the B road.

4. Litter

No litter was observed off site and the trees around the perimeter of the site (nr. lagoons) were free of plastic etc. Litter pickers were present on site clearing litter from un-worked areas. **There was some loose litter on the flank facing the surface water lagoons, please ensure this picked by 07/08/15**

5. Reports

As discussed please submit the following reports;

- a) CQA Validation report for the installation of gas wells May 2015
- b) CQA Plan for capping works planned August / Summer 2015
- c) Outstanding HRA Comments

	EPR Compliance Assessment Report	Report ID: GP3830BG/0244757
This form will report compliance with your permit as determined by an NRW officer		
Site	Chirk Landfill Site	Permit GP3830BG
Operator/ Permit	FCC Waste Services (UK) Limited	Date 29/07/2015

Section 3- Enforcement Response	Only one of the boxes below should be ticked
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.	
Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.	☐
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.	☐
We will now consider what enforcement action is appropriate and notify you, referencing this form.	☐

Section 4- Action(s)			
Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.			
Criteria Ref.	CCS Category	Action Required/Advised	Due Date
See Section 1 above			
		Refer details section.	

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 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 which 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 fulfill 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 (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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information 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 twenty 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 the officer's line managers. 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.