

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	24/03/2015		Time in	10:00	Out	13:00
What parts of the permit were assessed	LFG Control					
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	26/03/2015		

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	N	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates	N	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
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
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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 is good and the flow has steadied over the past year at a consistent and sustainable level. This is as a result of the substantial amount of work undertaken by FCC and Infinis on the gas management system over the past 2 years. Field readings show that there is some emission from the site surface which would suggest that a small increase in gas extraction efficiency can still be achieved.

One of the CAT gas engines was shut down and was being repaired as a valve had been thrown into the cylinder damaging the piston. It was reported that this may have been due to a temporary increase in oxygen in the inlet gas.

Please clarify the cause of the engine damage. If high oxygen is identified as the cause what steps have been taken to ensure this does not happen again?

The inlet pressure to the flare was reading +94mb please confirm that this is a high enough pressure to allow the flare to burn the gas at the required temperature.

2. Gas Field

Surface emissions 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.

1. In general the majority of the wells inspected showed excellent flow characteristics and overall emissions from the site are significantly reduced when compared with previous inspections.
2. Gas well 80 had a methane emission reading of 120ppm from around the boot detail. Although there was some flow from this well it was limited. We were informed that the well has a pump inserted which has become stuck, this is preventing dewatering and dipping. This well is due for a re-drill. **Please confirm the date of anticipated re- drill and the decommissioning of the existing well. In the interim period the well should be re-sealed.**
3. **Gas well CHIR 0070 requires the transmission pipe-work to be elevated over the bund to ensure adequate condensate drainage.**
4. **The 315mm diameter gas main that is close to the CHIP 0112 saddle, should be moved so that there are no low spots and it can be drained into the main knockout pot close by, or a new dedicated knockout pot installed, or an alternative long term solution proposed by the operator/gas manager.**
5. Well CHIW 0081 appeared to have audibly low flow and was colder than adjacent wells. **Please dip this well and report the water levels in relation to the available slotting.**

6. Well CHIR 0077 had excellent audible flow and the pipes were warm. There was however emissions from the site surface of 100ppm, 296ppm and 370ppm at approximately 1.5m radius from the well. The exact reason for this emission is unclear but may be to do with the upper layers of waste producing more gas than the extraction system in the area can deal with following heavy winter rainfall. **A series of pin wells or other operator led solution will be required in this area to reduce surface emissions. It may also prove useful to dip this well to assess the water levels although this is not thought to be a likely causal factor in this case.**
7. A similar effect was observed close to well CHIW 0087 in that the flow characteristics from the well were excellent and the extraction pipework was warm possibly indicating good gas extracted from deeper in the site. However there was an emission of 1130ppm from the site surface approximately 1.5m from the well. In addition there was a 4.1% emission from the boot detail. **The response should be similar to that discussed in point 6 above and in addition the well base should be re-sealed and the well should be dipped and available slotting determined. These results should be forwarded to NRW as soon as possible.**
8. CHIW 0116 had a methane emission of 6% from the base of the well and a 330ppm emission 1m from the well on the site surface. **Actions as for points 6 and 7.**
9. CHIW 0021 showed 8.1% methane emission at the base. **This well should be dipped, pumped if necessary and re-sealed. The areas mentioned in the last three points seem to show a trend for some increased surface emissions in these areas which may be as a result of heavy winter rainfall percolating through the upper layers of the waste mass causing increased gas production in the upper layers of waste. Therefore further extraction is required in these areas, which may be provided by pin wells judiciously installed in the required areas or another solution to these emissions proposed by the operator.**
10. Well CHIR 0040 showed a reading of 950ppm from the base of the well. **Comments and actions as above.**
11. Emissions and odour were detected in the air close to well CHIW025R, which is a redundant well. This is in an area of uncapped waste on the west / south west edge of the site where collection infrastructure is sparse (this includes the route of the old haul road that has now been over tipped). **New gas wells are required in this area to ameliorate this situation.**
12. Re-drills and decommissioning of some existing wells and the drilling of new wells was discussed with the site manager.

Please submit a response to NRW to address the issues highlighted / questions raised in this report including dates of well installation as appropriate. Please do so by 10th April 2015.

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Section 3- Enforcement Response **Only one of the boxes below should be ticked**

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

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			

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.