

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

Site	Hafod Quarry Landfill	Permit Ref	PP3139GB		
Operator/Permit holder	Cory Environmental (Central) Ltd				
Regime	Installations				
Date of assessment	23/11/2016	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Q3 2016 Monitoring returns and compliance, Cell 4 Eastern Sidewall CQA Plan and Hydrogeological Risk Assessment update.				
Lead officer's name	Oakes, Ian				
Accompanied by					
Recipient's name/position	Ian Craven/ Site Manager	Date issued	23/11/2016		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. 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	2.9.1, S4.1
E1 - Emissions - Air	C3	3.3.5, S4.5
E3 - Emissions - Surface water	C4	3.1.2, S4.3

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	3	Total compliance score (see section 5 for scoring scheme)	8.1
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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

Q3 2016 Monitoring returns and compliance, Cell 4 Eastern Sidewall CQA Plan and Hydrogeological Risk Assessment update.

1. Compliance Q3 (July -September) 2016

i). CCS 3 - Leachate level exceedances (with reference to HAF 143, 145 & 148).

Cell 1 (MP1b) July 17.3 m, August 14.8 m and September 2.1 m versus 2 m limit. Pump replacements have reduced the leachate head to compliance levels by the end of the quarter.

Cell 2 (MP2a) July 1.5 m, August 2.3 m and September 1.6 m versus 2 m limit. At compliance level.

Cell3 (LC3) compliant. Well 7 m deep and the chamber rings have shifted at 2 m from the base, to try and reinstate the chamber.

Cell 4 (LC4, LMP4a & LMP4b) First twin sets of results in September ranging 2.3 to 3.5 m versus 2 m limit. Expected to be compliant by the end of October (actual range 2.1 -2.6 m)

Leachate removed from site: July - 1961 m³, August - 2094 m³ and September - 1017 m³.

With respect to CCS 3 scoring of none compliant leachate levels shown not to be collectively influencing groundwater through the hydrogeological risk assessment – these are scored also with due consideration of the negative influence on gas extraction and the potential for leachate 'break out' and pooling creating odour, both of which have been a feature of the site. It is encouraging to see the October figures with full compliance in sight.

ii). CCS3 – Various perimeter gas well exceedances (with reference to HAF 144, 146 & 149).

Methane ranging 0 - 43 % versus 1 % limit and / or carbon dioxide levels ranging 1 – 32 % versus 1.5 % limit (not under positive pressure and subject to gas audits by NRW).

iii). CCS4 – Emissions to surface water (with reference to HAF 147 & 150).

SW2 Surface water marginal exceedances on 26 July of magnesium 32 vs 31.9, potassium 15 vs 10 and total oxidised nitrogen 3.1 vs 2.9 mg/l limits and 27 September of potassium 15 vs 10 mg/l and conductivity 1190 vs 1120 uS/cm limits.

2. Cell 4 Eastern Upper Sidewall CQA Plan

We have examined the CQA Plan for Cell 4, Easter Upper Sidewall at Hafod Landfill. Cory has submitted the plan after consultation with NRW because of a revision to the established construction process at this site. The Plan submitted describes the reason for the revision and provides details of the alternative design. Essentially, the revision comprises the replacement of the previously approved geocomposite drainage material and the opinion of an intermediate drainage layer between the AEGB and the ASL

(though this detail has been approved for a previous single construction phase).

The Plan follows the format of the now well-established series of CQA Plans submitted and approved for engineering works at Hafod. Characterisation data provided in the appendices to the Plan are now 8 years old, though construction phases undertaken during the last 8 years have adopted this same report and site won materials have proven to be compliant with the characterisation. It is noted that the moisture content window has been revised following additional characterisation work during a subsequent engineering phase.

This review revealed no shortcomings in the submitted CQA Plan and accordingly the Plan was accepted in its current form.

3. Hydrogeological Risk Assessment update with respect to Revised HRA August 2016 – issue 4.

Issue 4 is in response to comments made in July 2016. There has been no major changes within the main text of the HRA. Previous comments included below (for reference) and which are ongoing.

Completed

i). Figure 11, 12 and 13 still have a gap marked on the y-axis for 2011. Data may be available, but it is not seen in the graph within the report.

ii). Install dip tubes in the leachate well to get the leachate head without being impacted by potential foaming.

Ongoing

iii). HA12C(B) - (Marl) undertake monthly sampling for 12 months to set limits and levels and then decommission HA12B(B). The sampling results for HA12C(B) are similar to HA12B(B) and the chloride concentration have reduced as expected with the new location.

iv). Cory Environmental Limited need to find the original borehole logs for the site to confirm:

a). Sampling horizons, e.g. Top, Middle and Bottom

b). Decommissioning of HA07 and HA08 (as no longer used, need to check no pathway to aquifers below the site).

v). Stop sampling for EPH and use TPH and BTEX – undertake annual monitoring for these suites and if present or upwards trend noted compliance levels and limits should be set.

Please provide data to close out iv). and prepare a minor technical variation to include iii). and v). and other parameters discussed during determination of the HRA (eg CAR _NRW0023824 etc).

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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			
E3	C4	Continue to monitor and investigate any breaches / trends.	31/12/2016
E1	C3	Optimise gas extraction from the inboard wells.	31/12/2016
B1	C3	Monitor pump performance and replace as necessary.	31/12/2016

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 reports 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 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.