

**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	25/08/2017	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	2.7.4				
Lead officer's name	McClymont, James				
Accompanied by					
Recipient's name/position	Graham Ball/ Head Of Landfill Gas	Date issued	25/08/2017		

### 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
<p><b>KEY:</b> See Section 5 for breach categories, suspended scores will be indicated as such.  <b>A</b> = Assessed or assessed in part (no evidence of non-compliance), <b>X</b> = Action only,  <b>O</b> = Ongoing non-compliance, not scored.</p>		

<b>Number of breaches recorded</b>	<b>0</b>	<b>Total compliance score</b> (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

### Hafod Landfill - Gas Well Installation CQA Plan, July 31 2017

We have examined the gas well installation CQA plan above.

The proposed gas well coverage is appropriate, provided the wells perform to best practice standards and provide suction over the areas indicated without introducing too much proximal or distal air into the landfill. Also that they are adequate to prevent breach of permit conditions. We accept the gas well specification for the Cory Type 1 wells which are aligned with industry infrastructure standards. Adequate provision must be made however for the extraction of perched leachate where this becomes an obstacle to efficient gas extraction.

We have concerns however, regarding the gas well specification for the Cory Type 2 (Hollelevator) wells, which based on the data provided, the performance and emissions survey conducted in April 2017, do not appear to be fit for purpose and may result in increased emissions should they be applied to the whole body of waste in this cell. The reasons for this assessment are set out below:

There are currently three wells of this type installed at Hafod, HOL01, HOL02 and HOL03. On the 9th of August 2017 we requested monitoring data collected at these wells since their installation. You sent us this data in a spreadsheet on the 10th of August, ref. 'NRW HOLL Data Aug 2017', containing monitoring data for HOL01, 02 and 03 collected monthly between February and August 2017.

We plotted the monitoring data to graphs and a review has highlighted some issues. The extraction pressure on all three wells is generally kept at -3mb or lower. When the extraction pressure is increased the balance gas and the oxygen within the well also increases. For example, on one occasion in HOL02 when the extraction pressure was increased from -3.49mb to -63.57mb the methane concentration decreased from 52.4% to 0.2%, the balance gas increased from 8.3% to 76.1% and the oxygen increased from 2.5% to 19.4%. This indicates the ingress of ambient air either through a leak in well, or the pulling of air through the waste. In addition, it appears that the gas wells were recorded as being off on several occasions during the review period.

The three existing wells were surveyed during our landfill gas inspection in April 2017. During the survey, with a Gazomat analyser, we detected gas emissions at the seal between the "Gas Hat" and the waste at all three wells. The highest being a measurement of 60,000 ppm (6 %) at the base of HOL03.

Following our initial review of the CQA plan and monitoring data, we emailed you on the 16th of August expressing our concerns regarding the inadequacies of the proposed design. You replied on the same day explaining that the new "Gas Hat" design submitted in the CQA is an improved design on those that are currently installed. The current Hollevators have an MDPE centre lid section which bolts through the top of the steel pipe. The new design is all steel, with both a gasket and more securing points around the top to maintain the seal.

It is considered that the revised "Gas Hat" design does not significantly alter the specification, and it

remains our conclusion that this well design may result in increased emissions should they be applied to the whole body of waste in Cell 4.

In summary, the deviance from best practice, identified issues with the existing wells and emissions detected during our landfill gas audit in April 2017, highlights the inadequacies in the proposed design of the Cory Type 2 (Hollelevator) wells. We therefore do not have confidence that the landfill gas in Cell 4 will be adequately extracted, and consider there to be the potential for significant point source and diffuse landfill gas emissions due to this design.

In accordance with condition 3.1.1 of the Permit, you must ensure that there are no point source emissions to air except from the sources and emission points listed in schedule 4 table S4.2.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0032063**

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Operator/Permit holder	Cory Environmental (Central) Ltd	Date	25/08/2017

### 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			

## 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.