

**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           | 21/02/2017  | Time in     | N/A        | Out | N/A |
| Assessment type              | Report/Data Review  |             |            |     |     |
| Parts of the permit assessed | Q4 2016 Monitoring compliance and Cell 4 Eastern Upper Sidewall CQA Validation Report |             |            |     |     |
| Lead officer's name          | Oakes, Ian  |             |            |     |     |
| Accompanied by               |   |             |            |     |     |
| Recipient's name/position    | Ian Craven/ Site manager  | Date issued | 21/02/2017 |     |     |

### 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 |
|---|--------------|-----------------------|
| B1 - Infrastructure - Engineering for prevention and control of emissions | C3           | 2.9.1, S4.1           |
| E1 - Infrastructure - Air   | C3           | 3.3.5, S4.5           |
| E3 - Infrastructure - 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.

|                                    |          |   |     |
|------------------------------------|----------|---|-----|
| <b>Number of breaches recorded</b> | <b>3</b> | <b>Total compliance score</b><br>(see section 5 for scoring scheme) | 8.1 |
|------------------------------------|----------|---|-----|

**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

### Q4 2016 Monitoring compliance and Cell 4 Eastern Upper Sidewall CQA Validation Report

#### 1. Compliance Q4 (October – December) 2016

i). CCS 3 – Q4 2016 Leachate exceedances (with reference to HAF 152, 155 & 156).

Cell 1 (MP1b) 2.14, 2.78 and 2.43 m versus 2 m limit.

Cell 2 (MP2a) compliant at 1.23, 1.13 and 1.37 m versus 2 m limit.

Cell 3 (LC3) 2.78, 2.37 and 6.60 / 7.01 m versus 2 m limit.

Cell 4 (LC4) 2.09, 2.59 m (LMP4a) 2.07, 2.05 m (LMP4b) 2.28, 2.54 m versus 2 m limit.

Significant improvements in leachate head control (removal at 989, 1329 and 1358 m<sup>3</sup>). Cell 3 Leachate chamber had shifted 2 m from base and was realigned during November. The pump was found to be pumping slowly and the head increased to 7 m in December. A new pump control panel with automatic flow and level monitoring was installed on 3 January 2017 and the level reduced to compliance.

ii). CCS 3 – Q4 2016 Various perimeter gas well exceedances (with reference to HAF 151, 154 & 157). Methane ranging 0 – 43 % versus 1 % limit and / or carbon dioxide ranging 1.6 – 33 % versus 1.5 % limit (not under positive pressure and subject to gas audits by NRW).

iii). CCS 4 – Q4 2016 Emissions to surface water (with reference to HAF 153 & 158). SW2 Surface water marginal exceedances 20 October potassium 13 versus 10 mg/l limit, alkalinity 400 versus 323 mg/l limit and TOC 13 versus 4.8 mg/l limit and 12 December conductivity 1240 versus 1120 uS/cm limit.

NB: Certain limits (and new well etc) are subject to the hydrogeological risk assessment permit variation and Cory are advised to vary as soon as is practicable. In the meantime any non-compliances will be scored relative to existing limits and their frequency.

#### 2. Hafod Quarry Landfill Site Cell 4 Eastern Upper Sidewall – CQA Validation Report

We have reviewed the CQA Validation Report for Cell 4 Eastern Upper Sidewall at Hafod Landfill as recently requested. The Validation Report has been submitted to NRW by Cory, the site operator, though it has been prepared by CQA International. The report affirms that the works and the independent CQA monitoring carried out during construction are in accordance with the approved CQA Plan, submitted to NRW in July 2016.

We have examined both the CQA Validation Report and the CQA Plan to confirm that the CQA monitoring works have been carried out as required. We can confirm that in this respect the CQA Validation works have been carried out correctly, and that the correct parameters have been measured during construction at the correct frequency. However, we are currently unable to substantiate that the correct number of tests have been undertaken as the report does not offer a means to confirm the surface area or volume of mineral used in the works. We have asked the operator to provide the information that will allow us to confirm the surface area and volume.

Part of our examination of the report includes a review of the laboratory and field test certificates, the delivery notes, construction records and manufacturer's quality control certificates. Whilst the majority of records are present, there are a small number of inconsistencies in the records, as identified below:

i). Manufacturer's Quality Control data for the geocomposite drainage is provided in the form of a Specification Sheet and a Certificate of Conformity for rolls delivered to site. It appears that there is no Certificate of Conformity for Rolls W9205/1 and W11686/3. Similarly, the MQC data is missing for the Protexia fabric used in the works.

ii). The Geotextile delivery record covers both geotextile (Terram) and geocomposite (Protexia and Pozidrain) though we note that 21 entries are made in the delivery log, yet only 13 uniquely numbered rolls appear on the list. The duplicate entries for many of the rolls provide alternative delivery dates and also different roll dimensions. This table needs to be carefully reviewed and revised to be an accurate record of delivery and dimensions.

iii). The geotextile installation record indicates that roll number W9987/11 was divided into 9 panels. The panel dimensions when added together exceed the roll length. This also needs to be examined and corrected.

iv). The Pozidrain geocomposite used at the site was a permitted alternative to the Specified geocomposite which the manufacturer had ceased to produce. Reference to the correspondence surrounding this permission is included in Appendix M and it reveals that the key parameter required is in-plane flow capacity. Correspondence indicates that the agreed alternative was to achieve an in-plane flow capacity that greatly exceeded the original Specification of 0.2 l/m/s, and a value of 0.75 l/m/s was indicated for the chosen product. We have examined the compliance test result and we note that it has only achieved 0.208 l/m/s.

The shortfall in promised flow performance suggests that this part of the engineering will be less able to cope with high water flows than other parts of the system. We can also see that the test has been carried out with 20kPa confining pressure with a Hydraulic Gradient of 0.5. The test results should be carried out to best simulate its in-situ performance and therefore a greater confining stress would have been better, though this would have further reduced the poor performance of the material. The hydraulic gradient however would normally be 1 to allow the performance to be compared with the Specification. We would like to receive comment on the likely in-situ performance of the material, given that its performance is dramatically poorer than expected.

Please forward the required information so we can complete the review.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0031167**

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 | Date       | 21/02/2017 |

### 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.

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.

### 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 |              |  |            |
| B1                  | C3           | Continue to monitor and investigate any breaches/trends. | 31/03/2017 |
| E1                  | C3           | Optimise gas extraction from the inboard wells.          | 31/03/2017 |
| E3                  | C4           | Continue to monitor and investigate breaches.            | 31/03/2017 |

## 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.