	EPR Compliance Assessment Report	Report ID: PP3139GB/0225086		
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	20/11/2014	Time in		Out
What parts of the permit were assessed	Q3 compliance and Stability Risk Assessment and CQA Plan for Cell 3 Upper Sidewall Construction			
Assessment	Report/data review	EPR Activity:	Installation: X	Waste Op: Water Discharge:
Recipient's name/position	Ian Craven - Site Manager			
Officer's name	Ian Oakes	Date issued	20/11/2014	

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	C3	C2.9.1, S4.1
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
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	C3	C3.3.5, S4.5
	2. Land & Groundwater	C3	C3.2.3, S4.4
	3. Surface water	A	
	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	3	Total compliance score (see section 5 for scoring scheme)	12
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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.

1 – Compliance Q3 2014-11-2014

a). CCS3 Emissions to air Condition 3.3.5, S4.5

Various perimeter gas well exceedences for July – Sept 2014 (HAF092, 093 and 094) with methane ranging 0 – 40% versus 1% and / or carbon dioxide ranging 2 – 33% versus 1.5%. Subject to actions arising from NRW gas audits July and Nov 2014.

b). CCS3 Emissions to land and groundwater Condition 3.2.3, S4.4

Groundwater monitoring borehole HA12B(B) chloride levels for July – Sept 2014 (HAF082v7, v8 and v9) at 1300, 1300, 1100 versus 450 mg/l. Borehole 300 m from the site on the slip road of the A483 and has historically high chloride levels with ammonia in compliance at <0.36 versus 2 mg/l.

c). CCS3 Engineering to prevent emissions Condition 2.9.1, S4.1

Leachate levels 2 – 21 m indicated versus 2 m in Cells 1 and 2 with Cell 3 largely compliant for July – Sept 2014 (HAF084v7, v8 and v9) due to perched leachate (removed 1732, 1198 and 796 m3). New wells commissioned MP1a and MP2a. Subject to actions arising from NRW gas audits July and Nov 2014.

2 – Stability Risk Assessment (SRA) and Construction Quality Assurance (CQA) Plan for the Cell 3 Upper Sidewall Construction at Hafod Landfill Site.

Following a careful design process, which included a period of groundwater observation and the construction of several trial counterfort drains, Cory submitted a SRA and CQA Plan for the Cell 3 Upper Sidewall Construction. Having accepted the Plan and SRA, Cory has constructed the works and has submitted a CQA Validation Report for the liner construction works. The report has been prepared by Stratus Limited and a hardcopy has been forwarded to us on 2 October 2014. We have reviewed the document and during this we uncovered an unexpected issue with the chosen geocomposite drainage material. Following discussion with Cory and Stratus, supplementary information has been received by us and therefore our review below considers both the Validation Report and the supplementary information.

The Validation Report follows the format of the many Validation Reports submitted for earlier phases of the construction of Hafod Landfill, though in this case additional works comprising the groundwater drainage system are also included. Our review has revealed that the scope of the Report covers all of the elements required by the CQA Plan and issues arising from the SRA. The required as-built drawings are provided, along with the construction records and sampling and testing data. A photographic record of the works is provided along with a diary of daily site records.


The key aspect to construction in this difficult area is the means to reduce groundwater levels so that the side slope is sufficiently stabilised to allow construction and to ensure long term stability. This has been achieved by provision of counterfort drains connected to a piped drain and overlain by a groundwater drainage geocomposite. The SRA determined the design parameters and the CQA Validation Report provides the required level of evidence to show that this was constructed as planned. The drainage runs are shown on the as-built survey and it is noted that the collector drain was extended a short distance beyond that intended to aid drainage. Some minor non-conformances in the properties of the filter fabric used in the counterfort drains has been noted though we are satisfied that this will not unduly influence engineering performance.

The drainage geocomposite used in this phase of works is different from that used on previous phases. Geofabrics FC6-2 has been used as it has a higher flow capacity than the material previously used. Flow capacity measurements have erroneously been made with the incorrect hydraulic gradient, yet we are satisfied by reference to manufacturer's data that the evidence indicates the materials will meet the Specification for flow capacity.

However, the photographs reveal that the material has been placed with the dimpled surface of the geocomposite uppermost, and in the absence of a bonded geotextile we have raised concerns with Stratus that this particular interface has not been considered in the SRA. In response to this, Stratus has consulted the manufacturer and has provided a supplementary stability analysis. We are pleased to note that the supplementary stability calculations show that this interface is stable and therefore the stability of the liner is not compromised.

Above the geocomposite drainage layer a 2m thick re-compacted mineral liner has been constructed, the first metre being the Artificially Engineered Geological Barrier (AEGB) and the second layer being the Artificial Sealing Liner (ASL). During the submission of the CQA Plan and SRA, it was accepted that the geocomposite drainage layer between the AEGB and ASL was not required at this location within the landfill side slope. Accordingly, the full 2m thickness of re-compacted clay has been formed following the acceptance criteria developed during previous phases of construction. The Validation Report contains the results of mineral liner testing and these results reveal that both the AEGB and the ASL meet the required engineering performance.

The Validation Report concludes with a statement that the various aspects of the construction are in accordance with the Specification and our examination of the report leads us to accept these conclusions. Accordingly we are able to recommend that the Validation Report is accepted (with the additional submission of the stability assessment of the groundwater drainage layer).

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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.	X
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			
B1	C3	Subject to actions arising from NRW gas audits July and Nov 2014.	N/A
E1	C3	Subject to actions arising from NRW gas audits July and Nov 2014.	N/A
E2	C3	No action specified	N/A

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.