

	EPR Compliance Assessment Report	Report ID: BP3339BH/0243251		
This form will report compliance with your permit as determined by an NRW officer				
Site	Aberthaw Quarry Ash Disposal Site EA/EPR/BP3339BH/V002		Permit Ref	BP3339BH
Operator/ Permit holder	RWE Generation UK plc			
Date	06/07/2015	Time in		Out
What parts of the permit were assessed	Engineering, dust control and emissions			
Assessment	Report/data review	EPR Activity:	Installation: X	Waste Op: Water Discharge:
Recipient's name/position	Environmental Compliance Engineer			
Officer's name	Tony Leakey		Date issued	06/07/2015

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	N		
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	A		
	2. Land & Groundwater	A		
	3. Surface water	A		
	4. Sewer	N		
	5. Waste	N		
f) Amenity	1. Odour	N		
	2. Noise	N		
	3. Dust/fibres/particulates	A		
	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
-----------------------------	---	--	---

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.

Aberthaw Quarry Landfill – CQA Validation Report assessment, site inspections 2014-15, Monitoring Reports Review

Aberthaw PFA Disposal Scheme Quarry Barrier, note supporting amendment to CQA plan for phases 3B and 4 works (Arup)

The Caulmert CQA report (see below) states that of the permeability testing results were supposed to be within the range 1.0×10^{-8} m/s to 2.0×10^{-10} m/s. The actual results were:

- 1 of the 56 samples exhibited a permeability lower than the minimum specification.
- 19 of the 56 exhibited a permeability higher than the upper specification threshold.
- The average permeability was 3.7×10^{-7} m/s.

Overall the barrier was more permeable than that required by the specification. However, no failures were reported across all three layers in any one location.

NRW did not receive the electronic Landsim files and have been unable to rerun the model to verify the reported results.

ACTION: RWE Generation to provide the Landsim electronic files for NRW records.

Electronic files should always be provided in future when Landsim models are submitted.

NRW has checked the probability density functions (PDFs) that have been used in the model and the predicted concentrations at the base of the unsaturated zone for Al, Cd and Hg. Both outputs are satisfactory.

The high Kd values achieved using the mudstone relative to those obtained and used for Phase 2 and Phase 3A using colliery spoil are contributing significantly to partitioning of the contaminant out of the aqueous phase onto the solid phase.

In view of the above considerations NRW will accept the higher permeability achieved for phase 3B. However, we will not accept a wider permeability envelope for Cell 4 engineering and measures should be taken to achieve the original permeability specification envelope.

The submission has been reviewed and no material defects in the submission have been identified other than those recorded by Caulmert (the CQA Engineer) such as the thinning in the drainage layer over the stepped formation and barrier layer permeability results outside the defined range. The variations observed are supported by reasoned risk based justification, which NRW acknowledges and accepts.

A few points to note and opportunities for improvement in the next phase development are outlined below:

It is noted that the formation surveys were undertaken by Jones Brothers using a laser level. The survey drawings were later submitted and approved. The photographs appear to show reasonably flat basal areas, so whilst the grading of the drainage material could lead to both thickening and/or thinning, 6% of the surveyed points revealed in excess of 10% and up to ~20% thinning of the basal drainage layer. Thickness checks were carried out using GPS on a 10m grid on 23rd April. Following the addition of the blinding layer, a further survey on 5m grid was utilised. This suggests the internal approval process may have accepted some expediency and therefore involved less rigour. NRW is not aware that the discrepancy was brought to the regulators attention.

The ~200T of oversize 6C 125-2mm drainage material on 11th April is not reported as a non-conformity.

Geotextile overlaps between panels P1-4 and P14-17 is not provided in the overlap record. Panels P63 and P154 cannot be identified on the Final Geotextile Panel Layout Drawing. Appendix 6.3 in relation to the drawing or seams being checked is difficult to follow. The roll numbers on the drawing for P26, P34, P37 to P46 and P55 are different to those in the overlap record. The check was not exhaustive and NRW presume these are just errors when transferring to CAD. The seams being checked are occasionally illogical, e.g. for P93 a seam is checked for a roll sequentially not yet deployed and for P132 the seam check goes back to P128-129. Whilst it is appreciated that the engineer checking the seams is not out all the time when rolls are deployed and that panels being deployed are done so in a jig-saw pattern this does raise questions of the methodology and whether all overlaps were checked. The recording of the seams being checked is generally ordered and rational, but becomes less logical on occasion.

ACTION: RWE Generation to require the panel layout drawing to be checked and re-issued if any anomalies are confirmed.

Discrepancies are recorded in the Geotextile conformance table for CON 7, 14-19 on opening size and water flow constant head results.

On the basis of the above considerations approval is given for pfa disposal to commence in phase 3B.

Site Inspections 2014-15

Planned inspections were carried out on 12/2/15 and 16/7/14 in order to verify that dust control measures were in place and operational. On both occasions appropriate haul road damping and dust suppression sprays were in place.

Improvements to drainage ditch de-silting, haul road surfacing and suppression spray supply pipework capacity were also noted.

Unannounced inspections involving observation of tipping activities from the landfill perimeter were carried out on 22/4/15, 1/12/14, 3/11/14 and 22/9/14.

No significant fugitive dust releases from RWE operations were noted.

Monitoring reports

Quarterly and annual monitoring data for 2013 and 2014 have been reviewed and the following points noted:

- Elevated boron, molybdenum and sulphate concentrations in surface water monitoring locations appear to be occurring over a similar time period.
- Ammonia concentrations are elevated in the landfill underdrainage flow along with sulphate and some metals associated with pfa that may also form complexes with ligands such as ammonia.
- The elevated molybdenum detected in borehole E05/03 may be related to leakage from the wheel wash drain.

Monitoring data exceeding the compliance limits for relevant parameters during this period are considered to be suspended breaches of permit conditions 3.1.2 and 3.2.3 pending further review of monitoring data and continuing investigation.

The pfa landfill permits are also subject to periodic review during 2015/16 and the issues arising from current monitoring trends will need to be addressed during this review.

The following actions are required in order to progress the permit review:

ACTION: RWE npower to incorporate into the continuing investigation into elevated surface water parameters consideration of the potential for free ammonia complexing with metals species in pfa leachate resulting in increased mobility through the basal barrier. Updates to be provided with routine monitoring reporting.

ACTION: RWE npower to provide an update on wheel wash drain modification and impact upon BH E05/03.

END

	EPR Compliance Assessment Report	Report ID: BP3339BH/0243251	
This form will report compliance with your permit as determined by an NRW officer			
Site	Aberthaw Quarry Ash Disposal Site EA/EPR/BP3339BH/V002	Permit	BP3339BH
Operator/ Permit	RWE Generation UK plc	Date	06/07/2015

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.			☐
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			

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.