

Compliance Assessment Report

Report ID:
CAR_NRW0022709

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

Site	Aberthaw Power Station NRW/EPR/RP3133LD/V010	Permit Ref	RP3133LD			
Operator/Permit holder	RWE Generation UK plc					
Regime	Installations					
Date of assessment	22/06/2016	Time in	13:30	Out	16:00	
Assessment type	Report/Data Review					
Parts of the permit assessed	Emissions and Improvement Programme					
Lead officer's name	Leakey, Antony					
Accompanied by						
Recipient's name/position	Amy Lavisher/ Environmental Engineer	Date issued	23/06/2016			

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
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	A	
E2 - Emissions - Land and groundwater	A	
E3 - Emissions - Surface water	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	A	

KEY: See Section 4 for breach categories, suspended scores will be indicated as such.
A = Assessed or assessed in part (no evidence of non-compliance), **N** = Not Assessed, **X** = Action only

Number of breaches recorded	0	Total compliance score (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

Aberthaw Power Station site visit and report review H1 2016

Discharge pH trial

The trial is extended until the end of August 2016 subject to continuing favourable condition of the reefs.

The preliminary observations note does not make clear the station operating parameters and tidal conditions at the time of the survey work. These details should be included in the final trial report.

The report should also consider whether or not the predicted pH distribution matches well with the survey data.

LNBo commissioning plan (POC14)

The commissioning plan has been reviewed. The only point of query relates to the possibility of consequential effects associated with the mill ball charge increase. In particular whether changes in PF particle size distribution will result in changes in EP performance and balance of trace pollutants in seawater discharge.

ACTION: RWE to confirm whether or not these effects have been considered and if any assessment has been undertaken as part of the commissioning programme.

U9 low NOx boiler upgrade guarantee tests have achieved 429 mgNOx/m³ on Ffos-y-fran coal. The commissioning report will be provided within 6 months of start-up unless further optimisation data is expected to be available after this period.

Sulphur dioxide emissions contribution (IC6)

The final report completing this improvement condition is noted. Further follow up will be provided in the event that any Habitats Directive assessments required during the permit reviews to implement the LCP Bref BAT conclusions suggest that further SO₂ reductions are necessary.

Eel Regulation CBA (IC35)

Best practice screening is not considered to be cost beneficial according to the Environment Agency document '**Guidance on the completion of Benefit Cost Analysis Stage 1 Valuation spreadsheet for eel passage and screening requirements**'.

The guidance states that if best practice screening is considered not cost beneficial then alternative measures must be implemented. Guidance is also provided for '**Safe Passage for Eel: Alternative Measures (where best practice screening is not cost beneficial for existing sites)**'.

The Alternative measures document outlines next options which may not afford as good protection as best practice screening but may be cost beneficial. These measures are outlined on a sliding scale of effectiveness. Mechanical screening and operational changes are outlined along with other measures by alternative means. It is clear that mechanical screens are not cost beneficial at Aberthaw, and NRW considers that there are no mechanical solutions that will be effective at preventing entrainment / impingement of eels.

Operational changes that would prevent entrainment would mean significant periods of generation down time (to coincide with eel migration periods)

The only option left within the Alternative measure package is '**Other measures by alternative means**' this is not an exhaustive list and enables choice of the best alternative to provide benefit for eels locally. This approach now needs to be taken forward by RWE with Afonydd Cymru, the umbrella organisation that represents nine Rivers Trusts across Wales.

The following link provides some background and contact details:

<http://www.afonyddcymru.org/>

Telephone: 01437 783 070 or 01437 766 669

Email: <mailto:info@afonyddcymru.org>

ACTION: RWE to contact Afonydd Cymru to initiate discussions on potential local eel improvement projects to fund as an alternative means to achieve eel protection in and around the Thaw catchment.

Review of accident management plan (IC36)

Update of the accident management plan to take account of U9 modifications is acknowledged. A review will be undertaken at a future inspection encompassing any further changes necessary in the event of permanent changes to coal diet following recent trials.

QAL2/AST report review

A comprehensive and thorough set of QAL2/AST monitoring reports by RPS Consultants. Some sections occasionally missing information, which will need addressing in future AST and QAL2 reports. Also some formatting issues within Data & Calculation sections.

In Section 2.3.2 it would be useful to have official report reference to previous homogeneity testing carried out by Atkins (including year and dates of testing). If previous testing to confirm compliance to BS EN 15259 was carried out several years ago, it would be worth repeating this to check continued compliance to BS EN 15259.

NC1: Section 2.2.1 No information on checking CEMs read zero.

NC2: Section 2.4.1 Missing statement of QAL1 compliance for each CEM.

High S coal CEM range

An issue has been highlighted relating to SO₂ CEM range in the event of FGD loss while a unit is in service. The CEMs are currently ranged to 1000 ppm which is insufficient when unabated and burning >1.3% S coals.

The loss of CEM reading has implications for both immediate actions to minimise risk of ELV non-compliance and how to deal with missing data when reporting against the ELVs.

The matter of data replacement could be addressed using calculation based upon coal S content, but this is retrospective and will increase the risk of non-compliance. The accuracy of reporting may also be affected. Robust guidance would be necessary for the shift manager to make good decisions on actions to take once the CEM is off range.

A preferred option would be to use a backup CEM with range extended to 2500 ppm. However, this may not be possible to implement in full compliance with EN14181.

ACTION: RWE to compare accuracy of emissions data using calculation and extended range CEM and implications of using calculation for shift manager decision making.

Emissions review

Elevated FGD seawater discharges associated with the composite sampling regime are considered to be approaches to limit due to uncertainty in the measurements.

Elevated cadmium in W1 discharge

An elevated level of cadmium is reported for the infrequent discharge from release point W1 in to the River Thaw during January 2016. This is likely to be due to accumulation of dissolved metals during recirculation of the surface water storage inventory for dust suppression and road washing. However, an investigation is required to establish whether or not any steps can be taken to prevent further accumulation.

ACTION: RWE to investigate elevated cadmium release from W1, report using Schedule 5 and propose actions to prevent a recurrence.

It is also noted the hydrocarbon oil release is reported as “visually clear” against an ELV of 3 mg/l. Reporting should be based on measurement rather than observation for this ELV.

ACTION: RWE to review hydrocarbon oil measurement procedures for release point W1 and update if necessary.

A further low pH event has been detected at the seal pit. This is not thought to be related to WTP discharges as the CW pump interlock has been implemented. Initial investigation suggests that absorber effluent draining via the SWTP on a falling tide may have been the cause. A potential root cause may be early shut down of absorber pumps before sufficient time has elapsed to flush residual low pH material through to the SWTP.

ACTION: RWE to complete investigation, report using Schedule 5 and propose actions to prevent a recurrence.

FGD bypass operation is now opened for 45 minutes at low tide in order to pre-empt potential discharge pH control problems initiated by recirculation. The by-pass damper is normally closed at all other times. The FGD bypass procedure has been updated to reflect this.

ACTION: RWE to provide copy of the updated FGD bypass procedure.

Sulphite/sulphide monitoring is to be agreed with NRW. Sulphite monitoring has been undertaken as part of the reduced pH discharge trial and are in the range 0.6-1.2 mg/l, well within the BAT AEL of 1-20 mg/l. The monitoring uses a test kit. It should be checked that this method is equivalent to BS EN ISO 10304-3. This data will be incorporated into the pH trial report.

Sulphide monitoring has not yet started. The two main methods used in saline water are the Iodometric titration method, which lacks sensitivity, and the methylene blue colorimetric method. There is a methylene blue test kit that may be suitable with a good LOD. There are also ISO methods 10530:1992 and 13358:1997.

Consideration should also be given to fluoride monitoring in order to check compliance with the BAT AEL.

All other emissions are within permit limits and there are no current trends that require review.

Off-site noise impacts

The turbine trip on 24th April 2015 resulting from unexplained closure of the U7 LHS IE valve and subsequent venting from the first set of reheat safety valves for 19 minutes is now thought to be potentially linked to re-commissioning of the ACE purifier unit in the valve actuation hydraulic system. There was an associated hydraulic oil tank level drop that may have caused a brief loss of pump pressure allowing the IE valve to close. Procedures have been updated to eliminate this as a potential cause.

Following the turbine trip on 15th September 2015, caused by a condition monitoring vibration transducer fault. The review of the robustness of condition monitoring systems to sensor failure causing undesired trips or operator responses has determined that it is not cost-effective to make improvements.

A review of boundary noise monitoring data is required to check that routine noise levels are within acceptable ranges.

ACTION: RWE to provide data summary plots of boundary noise levels for period since building glazing repairs were completed.

GRP tank inspection and maintenance regime

It is understood that no GRP tanks are in service at the station.

ACTION: RWE to confirm whether or not GRP tanks are in service at the station.

END

EPR Compliance Assessment Report

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Operator/Permit holder	RWE Generation UK plc	Date	22/06/2016

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.

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.

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 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.