

Compliance Assessment Report CAR_NRW0050702

Permit being assessed: RP3133LD.

For: Aberthaw Power Station , **held by:** CCR Energy Limited

At: The Leys , Aberthaw, Vale of Glamorgan, CF62 4ZW.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 31/12/2025 between 09:00 and 17:00.

Parts of permit assessed: Management, monitoring, emissions.

NRW Lead Officer: Antony Leakey.

Report sent to: n/a, Head of Operations, on 16/02/2026.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3E - Installations - Emissions and monitoring - Monitoring	C3 Minor	3.5.1(c)
IR1A - Installations - Management - General Management	C3 Minor	1.1.1(b)
IR1A - Installations - Management - General Management	C3 Minor	1.1.1(a)
IR3E - Installations - Emissions and monitoring - Monitoring	C3 Minor	3.5.1(a)
IR1E - Installations - Management - Avoidance, recovery and disposal of wastes produced by the activities	Assessed (A)	
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	Assessed (A)	

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
4	16

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR3E	Improve training and oversight of monitoring activity.	Already completed
IR1A	Improve training and oversight of monitoring activity.	Already completed
IR1A	Implement improved hot work controls and material management arrangements.	Already completed
IR3E	Improve training and oversight of monitoring activity	Already completed

Compliance criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

You are non-compliant with your permit.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Aberthaw Power Station – Site Inspection 2025, Monitoring Reports Review

Site Inspection 2025

A site meeting was attended on 12 November 2025 to discuss:

- Dust deposition monitoring
- Demolition progress update
- Ground Investigation specification for areas around south and east of the power station site
- National Grid tower replacement works CQA plan (see separate CAR for permit DP3432SW)

Dust deposition monitoring

Following review of deposition gauge data for the Aberthaw area from different Operators, the uncharacteristically low results being reported for the power station locations were queried again in August 2025.

The power station results were single digit mg/m²/day, whereas all other results, including

“background” locations in the area were sometimes in the 100s mg/m²/day, due to the prolonged dry weather, periodic high winds and dust generating activities locally.

On behalf of CCR Energy WSP had previously checked the dust deposition monitoring procedure and an NRW review of the OM8.1.2 Deposit Gauges procedure suggests that the sampling is in accordance with the standard process for Frisbee gauges. Nevertheless the data being collected and/or reported was not representative of the location.

WSP undertook a further review of the collection of the dust deposition samples with Erith the demolition sub-contractor responsible for undertaking the monitoring. During the inspection key deviations from the procedure were noted.

When the bottles were being swapped on the dust gauges, Erith failed to undertake the following key steps:

- The dust from the frisbee was not rinsed.
- The foam disc was not replaced with a clean one.

These omissions will have resulted in low results and NRW concludes that all previous dust deposition rates monitored by CCR Energy since Erith took over collection and determination of dust deposition rates on their behalf has not been undertaken in accordance with the permit requirements as specified by permit condition 3.5.1(c).

An investigation by Erith identified training and oversight failings, which ultimately are the responsibility of CCR Energy as the permit holder. These failings are a further non-compliance with permit condition 1.1.1(b).

The dust deposition data are not used to demonstrate compliance with emission limits but do provide a baseline measurement for dust complaint investigation. The under-reporting of dust deposition data has not resulted in a significant environmental impact and therefore the non-compliances are considered to be minor category 3 level.

Corrective actions have already been implemented to improve training and oversight of the monitoring activity.

Ground Investigation

A review of the Ground investigation Specification determined that it appears to be well thought out and comprehensive.

There are some missing key metals determinants associated with coal/ash – boron, molybdenum and selenium.

Selenium is included for soils, water, and waste samples. Water soluble Boron is included for soils (p.32) but not water. Molybdenum is only included for Waste.

NRW considers that it would be beneficial to add these for soils and water for completeness.

All the detection levels for the proposed analytes are sufficient low.

Specification requirements for processed demolition arisings

A query was received from WSP relating to end of waste for the aggregate to be reused on the site of origin and 6F5 (imported Quality Protocol aggregate) specifications. If reused at the power station the material cannot be 6F5.

There are differences in specifications for 6F2 and 6F5 in Highways Agency Specification for Highway Works: Series 600, but the QP clearly states that material produced to the Series 600 specification must meet the relevant parts of the BS EN 13242 standard, including for 6F2 material.

To achieve end of waste the 6F2 material must meet the requirements of the QP and therefore the relevant standards and specifications.

A separate query was received from Erith relating to use of site-won PFA as fill material for the basement voids, trenches and former plant areas in accordance with Regulatory Statement (RS) 002: Using unbound pulverised fuel ash and furnace bottom ash in construction and the Specification for Highway Works.

The following aspects are noted:

- The proposal has potentially significant implications for surrender of the current EPR permit and future re-development of the site.
- It's unclear if the PFA is to be extracted from the ash mound or is residual ash, including FBA, in the plant. The total quantities of ash and the split between PFA and FBA is not specified. If extraction is being proposed that will need prior approval by variation of the landfill permit, assuming that the RD was considered applicable (see below).
- PFA can leach contaminants and unbound construction uses of PFA have previously been refused due to concerns about hexavalent chromium impacts on groundwater, as well as other PFA marker pollutants such as sulphate, molybdenum, and boron (and ammonia at Aberthaw).
- The basements at the station are generally below the water table and NRW's understanding is that the normal abandonment following demolition is "pepper pot" perforation of the basement concrete floor slab to allow equalisation of groundwater levels before infill with aggregate. Any PFA used for basement fill at Aberthaw will inevitably come into contact with the groundwater or water flowing in the unsaturated zone.
- It is not clear from the documents supplied that all sensitive environmental and conservation receptors have been confirmed to be outside the specified distances in the RD, and groundwater under the station is considered a sensitive receptor and is presumably supplying some baseflow to the Bristol Channel and River Thaw estuary, so this may immediately preclude the proposed use.
- Introduction of additional potentially leachable material into the site before the EPR permit surrender process has been completed may complicate the remediation requirements and potentially delay or prevent surrender. CCR Energy need to consider these risks.

NRW's current view from an environmental protection point of view is to only permit backfill of voids using residual processed clean recycled aggregate from demolition materials and

exclude any use of unbound PFA and FBA.

There may be scope to apply for a Groundwater Activity permit to allow a detailed hydrogeological risk assessment to be undertaken and assessed, but there is no guarantee that such an application would be determined favourably at this location.

Climate Change Risk Assessment

A high level review of the climate change risk assessment submitted in response to a Regulation 61 notice has been undertaken.

The CCRA is site-specific, references relevant sector hazards for a former power station, identifies exposure (assets/infrastructure/personnel/sensitive receptors), and proposes reasonable actions. It also documents risk ratings which support prioritisation. However, there are gaps against regulatory expectations:

- **Time horizons:** The CCRA qualitatively references future climate changes but does not clearly set out short/medium/long-term horizons (e.g., 2030/2050/2080). **Criterion partially met.**
- **Climate projections:** Narrative figures (e.g., summer temps +7 °C; extreme rainfall +20%) are present, but sources (UKCP18/Met Office) are not explicitly cited within the spreadsheet. **Criterion partially met.**
- **KPIs:** There are no explicit performance indicators to measure adaptation effectiveness. **Criterion not met.**
- **Review/update plan:** The CCRA mentions that risks will “continue to be monitored”, and references the EMS/DEMP, but lacks a defined review frequency or review trigger points, e.g. the introduction of new permitted activities to the site following demolition and remediation. **Criterion partially met.**

There is no further action required at this stage. Please note that the CCRA is a live document and should be reviewed periodically as part of your Environmental Management System (EMS) and after any significant climate-related events or near misses.

Demolition activity fire

A fire occurred at 09:45h on 21 November 2025 during demolition works at the Turbine Hall North Loading Bay at Aberthaw Power Station. Hot works were being undertaken at high level using oxy-propane burners for cutting of steel beams. As a beam was dropped into the designated exclusion zone, molten metal/slag is believed to have landed on a stockpile of removed roof sheets coated in bituminous material, igniting them.

Fire marshals attempted initial suppression, but the fire escalated. A site-wide evacuation was initiated at 10:02, and four fire crews attended, extinguishing the fire by 12:00. No injuries occurred.

Smoke impacts are a matter for the local authority planning enforcement team. However, there was potential for firewater discharge and minor environmental impact on the Bristol Channel.

Firewater and fine debris were contained within the turbine hall slab bunding and collected

into IBCs on 24 November before being removed by Yellowstone Environmental Solutions on 25 November.

There are identified management deficiencies associated with allowing storage of combustible roof sheets adjacent to the hot work area.

No suitable skip was available at the work location, so combustible roof sheets had been temporarily stockpiled.

Improved hot work controls and material management arrangements have been implemented to prevent a recurrence.

These failings are a minor category 3 non-compliance with permit condition 1.1.1(a) due to the potential for release of firewater into the Bristol Channel with limited environmental impact.

Monitoring reports

Quarterly, monthly and 2025 annual monitoring data (condition 4.2.1) for Q1 though to Q4 2025 have been reviewed and the following points noted:

pH measurements are generally quite low compared to expected background levels in surface water. This should be kept under review to ensure that there is no low level contamination of the station basement or drainage system with residual acid from boiler water treatment facilities or the FGD system.

Composite water sampling was not undertaken in May 2025. Action has been taken to ensure that the demolition contractor takes monthly samples as required by the permit. This is a minor (category 3) non-compliance with permit condition 3.5.1(a). Action has been taken to ensure that monitoring requirements are given sufficient priority.

END

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):**1. Management**

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A(1) – Emissions to water
- IR3A(2) – Emissions to air
- IR3A(3) – Emissions to land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or 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
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.