

## Compliance Assessment Report CAR\_NRW0050647

**Permit being assessed:** BP3339BH.

**For:** Aberthaw Quarry Ash Disposal Site EPR/BP3339BH, **held by:** RWE Generation UK plc

**At:** Aberthaw Quarry Lafarge Cement Works , East Aberthaw, Barry, Vale of Glamorgan, CF62 3ZR.

**Type of assessment:** Site Inspection,

**Reason:** Routine.

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

**Parts of permit assessed:** Management, emissions, engineering.

**NRW Lead Officer:** Antony Leakey.

**Report sent to:** Jason Keene, Company Secretary, on 18/05/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Installations - Management - General Management	C2 Significant	1.1.1(a)
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3.1.2
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3.2.3
IR2G - Installations - Operations - Landfill engineering (only applicable to landfill)	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
3	39

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
IR1A	Provide details of project management process improvements	30/09/2026

Criteria	Action needed	Complete by
	to incorporate of climate risk and adaptation measures.	
IR3A(1)	Complete landfill restoration project	31/12/2026
IR3A(1)	Complete landfill restoration project	31/12/2026

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.**

**We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.**

### 4. Details of our assessment

#### **Aberthaw Quarry PFA Landfill - environmental permit BP3339BH**

##### Dust Incident Review

Between 7 July and 21 August 2025 reports of dark dust impacts on residential and business amenity, property damage and public health were received by the South Central Industry Regulation (SCIR) Team from Fonmon and other locations in proximity to the Aberthaw quarry PFA landfill operated by RWE Generation UK Ltd where reprofiling and capping works had commenced on 23 June 2025.

Strong winds and dry high ambient temperatures prevailed in the area throughout this period.

8 reports of black dust impacts inside and outside of residences were received on 14 and 15 July across a front downwind of the PFA landfill approximately 700 metres wide and 300 metres horizontal depth at a distance of 150 to 450 metres from the eastern boundary of the landfill. Continuous westerly wind speeds of up to 21 mph were recorded at Cardiff airport weather station from midday on 14 July. Continuous westerly wind speeds of 12-24 mph with gusts of up to 38 mph were recorded on 15 July through to 02:00 hours on 16 July.

Previous experience during landfilling operations has shown that offsite fugitive dust impacts are possible when wind speeds exceed 11-13 mph from westerly directions. It is likely that the exposed cut and fill reprofiling surfaces gave rise to the observed fugitive dust releases and impacts on these dates, although clinker deposits were also being made into the southern quarry area by the Tarmac cement works during the period.

RWE and their contractor Walters had a Construction Environmental Management Plan (CEMP), including dust control measures, in place during the works. Daily weather forecast planning was undertaken each morning by Walters when the foreman held the daily onsite project meetings prior to works commencing each day. However, there was no use of longer range forecasting and associated contingency planning, no use of sealant on high risk areas and no local wind speed measurement capability prior to the initial offsite dust incidents that gave rise to complaints.

Compliance assessment report reference CAR\_NRW0046406 was issued to RWE on 9 June 2025 including a statement that the landfill operating procedure LP/OPS/3078 will need to be updated or replaced to reflect the need to use weather forecasting, weather monitoring and frequent review of conditions during the reprofiling works. RWE was reminded that a range of wind speed thresholds at different working locations may need to be identified and included in the procedure. This followed an email on 19 May 2025 from NRW to RWE to confirm that during the proposed works it will be important to ensure that the current operational dust, surface water and noise management plans are updated to reflect the risks posed and sufficient training and supervision of contractors is provided to ensure proper implementation of appropriate measures.

Following substantiation and initial investigation into some impacts of the dust releases and measures taken to minimise dust releases, compliance assessment report CAR\_NRW0049201 established that some appropriate measures were taken by RWE's contractor, Walters UK, on 14 July 2025 to reduce PFA dust emissions, including cessation of heavy plant activity and damping down and surface sealing. However, the weather conditions were such that with very dry conditions, high ambient temperatures and high wind speeds, the measures taken were insufficient to minimise the emissions and further appropriate measures could have been taken.

In a letter [1] dated 19 December 2025 responding to CAR\_NRW0049201 RWE acknowledges that lessons have been learned from the incident, including the need for earlier use of longer-range weather forecasting and incorporation of climate change risk and adaptation into project planning.

The letter also sets out details of further measures taken to minimise fugitive dust emissions after 15 July 2025, including use of additional bowsers, multiple large and small misting cannon, PVA sealing of exposed PFA surfaces not able to be covered by drainage aggregate and increased processing rate of drainage aggregate to facilitate more rapid cover of exposed PFA surfaces.

RWE also presented analysis of the weather conditions during the period of the dust complaints in comparison with long-term meteorological statistics for the location and same period.

It is noted that peak temperature, wind gusts and rainfall accumulations are in the higher or lower (as relevant to the parameter) percentile ranges, i.e. less common and concurrent occurrences are less common still. However, in the context of wider spring/summer conditions at the location in recent years (hot, dry and windy), the weather conditions experienced around 14 July are expected to occur with increasing frequency due to climatological shift.

RWE was reminded prior to the works commencing that previous operational experience at the PFA landfill had resulted in offsite impacts during prolonged dry and windy conditions requiring additional measures to be taken to minimise fugitive dust emissions.

While it may not have been possible to fully mitigate the fugitive dust emissions on 14 July due to the adverse weather conditions, it was predictable that far more resources than those actually deployed would be necessary to minimise the impact of the forecast weather

condition.

Overall, the evidence supports the conclusion set out in CAR\_NRW0049201 that further appropriate measures could and should have been taken to minimise fugitive emissions arising during the PFA reprofiling works, specifically on 14 July 2025, and that a significant proportion of the dust causing pollution at Fonmon was PFA from the landfill.

### Operational Permit Compliance

The following section covers the investigation of management system failures leading to the insufficient implementation of appropriate measures to minimise the fugitive emissions of PFA dust as set out in compliance assessment report CAR\_NRW0049201.

The permit compliance consideration relates to the “general management” condition:

1.1.1 The activities shall be managed and operated:

- a. in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
- b. by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

During a MS TEAMS meeting on 14 November 2025 RWE provided an overview of the business procurement protocol, used prior to any contract award, to screen potential contractors. Tendering contractors are approved using the RWE Supplier Lifecycle (SLC) platform. The digital platform facilitates the distribution of pre-qualification documents and questionnaires to all tenderers, covering key topics such as commercial arrangements, corporate responsibility, business continuity, quality management, information security, construction management, health and safety, and environmental management.

RWE subject matter experts undertake detailed evaluations of the technical, commercial, health & safety, and environmental aspects of tenders submitted by SLC approved contractors, raising technical queries where clarifications are required. As a result of this process Walters were selected as the preferred tenderer for the project.

Prior to formal appointment as Principal Contractor for the works a pre-award evaluation was undertaken to assess Walters’ capabilities and approach to project delivery. RWE representatives visited a Walters-managed site to observe Walters’ operational standards and confirm their suitability for the PFA landfill reprofiling project.

A structured pre-mortem was conducted with Walters by key RWE personnel on the 28 May 2025 after award of the contract to identify potential risks and established key mitigation actions prior to the commencement of site works. Consultants RPS (Principal Designer and CQA engineer) were also engaged in the pre-mortem as an independent external specialist.

Potential dust generation, as well as noise, were highlighted as significant risks during the pre-construction phase and it was recognised that ongoing monitoring and active management would be required throughout the duration of the works. Dust and noise control measures including background monitoring, to ensure regulatory compliance, were planned

and implemented by Walters.

In the letter[1] dated 19 December 2025 RWE recognise that operational lessons have been learned from the incident, including the need for earlier use of longer-range weather forecasting and incorporation of climate risk and adaptation during project planning. This indicates that improved management processes could have anticipated the infrequent but high impact weather conditions and made provision to minimise the impact.

During a Microsoft TEAMS call on Wednesday 4 February 2026 the following aspects were presented by and discussed with RWE:

- RWE subject matter expert records of the environmental aspects assessment of the Walters tender for the reprofiling works were presented. The focus at this stage was on high level environmental compliance capability which was demonstrated. NRW notes that the environmental element of the tender selection process only carries a 5% weighting, compared to 15% for health and safety and 40% each for commercial and technical capability. However, this would make little difference to the contractor selection in this case, because all contractors achieved the same good environmental rating. Note, that the Stage 1 tender phase requires appropriate environmental management as a mandatory pre-qualification condition (100% pass or fail value). Commercial rating was the critical factor in contractor selection and it is unclear what level of detail the process examines. This may be a weakness in the selection process for projects where environmental management is critical. Technical queries raised at this stage related to dust and noise control associated with screening operations because this was assessed to carry the highest risk of impact.
- The pre-award evaluation undertaken to assess Walters' capabilities and approach to project delivery included a visit to an active project on 15 May 2024. The primary focus appeared to be on health and safety matters. It was noted that the contractor was responsive to changing site conditions. There was no specific assessment relating to dust management, which may not have been relevant at the location. The conclusion was that Walters was a strong candidate for the Quarry works.
- Records from the pre-mortem conducted with Walters and RPS (principle designer/CQA engineer) prior to commencement of the works demonstrate that dust control was considered and details addressed in the Construction Phase Health & Safety Plan and Construction Environmental Management Plan. It is noted that restriction of working area, other than for vegetation removal, was not considered as a control.
- Records relating to the RWE Transfer of Control of Premises for the Quarry PFA landfill include section 3 "Special considerations or controls" which make specific reference to the environmental permit and water discharges.
- Formal site walk over records for RPS and RWE demonstrate that dust management issues were raised prior to the 14 July incident on 3, 10 and 11 July and action escalated to include cessation of works and focus on sealing of PFA surfaces ahead of the forecast adverse weather conditions. No site inspections or mitigation works were carried out over the weekend of 12-13 July despite the continuing forecast for dry and hot weather and high winds on 14 July.
- A contract Early Warning Notice was issued on 18 July 2025 by RWE to Walters relating to enhancement of dust management measures and clean plans. Formal change of project scope instructions were issued on 25 July 2025 relating to drainage material sizing, drain age layer production rate, hydroseeding specification and

programme aimed at speeding up the coverage of exposed PFA surfaces. These post-event mitigations indicate that the original project Construction Environmental Management Plan resulted in unmanageable dust control using conventional dust control equipment under the prevailing weather conditions.

The RWE event RCA preliminary findings were also reviewed during the meeting on 4 February 2026.

RWE asserts that the unusual weather conditions significantly increased the risk of dust emissions, resulting in dust levels that exceeded reasonably foreseeable levels.

However, NRW had already advised before project implementation that dust management was a priority due to the dry spring. Enhanced weather forecasting can be used to help predict longer range conditions for weather critical projects.

Met Office analysis [Summer 2025 is the warmest on record for the UK - Met Office](#) shows that what were once considered exceptional summer temperatures and heat waves are increasingly becoming typical. Against this elevated climate backdrop, higher temperatures are no longer anomalies, and are becoming the new normal.

The RCA accepts that different weather conditions including heatwaves should have been better considered. The focus was on the typical wetter weather that can be experienced in Wales, especially in the autumn and there was a genuine concern that the delayed planning permission and consequential late mobilisation in May 2025 would result in risks of incomplete works going into the winter period, when vegetation might not be sufficiently established if hydroseeding was delayed or unable to be deployed.

The RCA states that “there was an inadequate evaluation of dust risks under extreme weather conditions related to the simultaneous bulk movement of PFA and the early vegetation clearance of naturally colonised successional scrub, exposing previously stable surfaces.”

By the time the impact of the deteriorating weather conditions were having on the dust emissions was realised it was too late to increase deployment of dust management measures until after the significant impacts had already occurred.

NRW has only recently started assessment of climate change adaptation integration into permit holder’s environmental management systems (see section below). Nevertheless, RWEs statistical analysis of the weather conditions during July 2025 and the Met Office analysis suggests that while the conditions were unusual, they were not extreme or completely unprecedented in the context of current climatological shift.

RWE has demonstrated that significant environmental protection planning and oversight was deployed for the project, but significant impacts arose. NRW views the key management system failures to be:

- Failure to adapt established project plans in light of delays to the start date. The delayed planning permission resulted in the PFA bulk work activities being pushed back by three months, moving them from the typically lower-risk spring season into warmer, drier weather.

- Failure to recognise the need for earlier use of longer-range weather forecasting and incorporation of climate risk and adaptation during project planning.

The above points demonstrate that, prior to 14 July 2025, RWE failed implement sufficient management adaptability to ensure that their contractor took sufficient appropriate measures to minimise the fugitive emissions of PFA dust and therefore failed to comply with permit condition 1.1.1(a) in contravention of Regulation 38(2) of The Environmental Permitting (England and Wales) Regulations 2016.

On the basis of the potential significant effect on human health and significant offence to human senses (see compliance assessment report CAR\_NRW0049201) the failure to implement sufficient management adaptability to ensure that appropriate measures to minimise the fugitive emissions of PFA dust were taken by the works contractor is assessed as a **category 2 non-compliance with permit condition 1.1.1**.

**ACTION: RWE to provide details of project management process improvements to incorporate of climate risk and adaptation measures by 30 September 2026.**

#### Site Inspection

An announced inspection of the landfill works was carried out at 11.30 hours on 19 November 2025.

Wind speeds were northerly at 12-18 mph while on site with no apparent dust blow. Conditions were dry and cool. There were extensive areas of drainage layer and sub/topsoil covered surfaces with minimal exposed PFA surfaces.

The following dust management aspects were discussed and subsequently implemented:

- PVA sealant is being used on unprotected surfaces that cannot be completed ahead of the works suspension.
- All available granular drainage layer material to be placed onto finished PFA surfaces and working areas are being minimised to reduce exposed surface area that needs maintenance of wetting.
- Additional drainage stone has been imported to provide maximum coverage of exposed PFA surfaces.

Overall, the measures implemented are considered to be sufficient to minimise the offsite impact of fugitive dust emissions and surface water erosion during the works suspension period.

#### Monitoring data review

Six monthly and annual monitoring data for 2025 have been reviewed and the following points noted:

Elevated molybdenum and sulphate concentrations have continued in boreholes E05/04, E23/03 and E06/01 periodically for boron, sulphate and ammoniacal nitrogen at the surface water monitoring location.

Monitoring data exceeding the compliance limits for relevant parameters during this period are minor impact category 3 breaches of permit conditions 3.1.2 and 3.2.3 pending completion of the restoration works and establishment of aftercare compliance criteria.

#### CQA report review

The CQA verification report 260109 R 794-ENV-GDE-23110 Aberthaw Quarry CQA Verification Report\_V2 relating to installation of new and replacement monitoring wells and abandonment of was reviewed.

The main deviation of note is the abandonment issues with the failed installation of E23/04A (section 5, pdf page 16). NRW has concluded that this does not present an issue at this location.

Also, decommissioning of boreholes E05/03 and E06/04 is described in section 4.1.5 (pdf page 15): “• Both plain and slotted sections of pipework remained in-situ and were not removed from the ground as part of the decommissioning works.” This is not best practice, because it leaves a potential vertical pathway via the gravel pack outside the well screen / casing. NRW has concluded that this does not present an issue at this location.

#### Climate Change Risk Assessment

Thank you for submitting your climate change risk assessment for Aberthaw Quarry (Ref. ENV/773/2025).

We have carried out a light-touch review of your risk assessment and are satisfied that it meets our current climate change risk assessment requirements under Regulation 61 and permit condition 1.1.1(a), noting the exception for project climate risk and adaptation management deficiencies set out above.

The “operational” assessment is site-specific, uses up-to-date climate projections (UKCP18), and considers relevant hazards and long-term scenarios. No high-risk hazards were identified, and the approach aligns with NRW guidance. The report systematically addresses multiple hazards (flooding, wildfire, drought, storms, sea-level rise, erosion, etc.), though many are deemed “not applicable” due to site characteristics.

#### Gaps:

No explicit KPIs for monitoring adaptation performance. No explicit KPIs identified. The report mentions integration into EMS and periodic review but does not define measurable indicators.

Limited detail on mitigation actions (because risks are assessed as low).

Prioritisation of exposed elements could be more structured. The report explains that the site has minimal assets and infrastructure, reducing exposure. Vegetation and restoration works are noted, but prioritisation of risks is implicit rather than structured.

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.

END

Reference 1. Aberthaw Quarry Ash Disposal Site – Permit Reference EPR/BP3339BH, CAR\_NRW0049201 Dust Incident Response, pdf letter provided by email 19/12/25.

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](mailto: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](mailto: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.