Compliance Assessment Report CAR_NRW0043316

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: Report/Data Review,

Reason: Routine.

On: 31/12/2023 between 09:00 and 17:00.

Parts of permit assessed: Emissions, monitoring and reporting.

NRW Lead Officer: Antony Leakey.

Report sent to: Sarah Camps, Environmental Consenting and Permitting Advisor, on 02/02/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.2
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.2.3
IR2G - Operations - Landfill engineering (only applicable to landfill)	Assessed (A)	
IR3A - Emissions and monitoring - Emissions to water, air or land	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
2	8

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
IR3A	Submit application for permit variation to incorporate proposed changes to the original pre-settlement contours and final landform.	31/12/2024
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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.

At this time, we do not intend to take any further action.

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 Quarry Landfill – Site Inspection 15 November 2023, CQA Report Assessment, Hydrogeological Risk Assessment Report Review

Introduction

The PFA landfill has been dormant since Aberthaw coal-fired power station ceased generation in December 2019, without completion to the originally approved final landform. Routine groundwater and surface water monitoring has continued since that time while plans for a revised restoration scheme have been developed. During that time regulatory activity has been limited to review of annual reports pending submission of the next hydrogeological risk assessment (HRA) update and proposals to address the elevated molybdenum concentrations that have continued in borehole E05/03 and the surface water monitoring locations.

The anticipated process that will be required to prepare the quarry PFA landfill at Aberthaw for initiation of closure, based upon current understanding of the site condition and proposed changes to original final landform is as follows:

- NRW will assess the HRA review report to understand the current groundwater and surface water compliance situation (completed – see HRA section below).
- RWE will need to apply to NRW for a variation to incorporate proposed changes to the original pre-settlement contours and final landform, and any proposals by RWE to address underperformance associated with the original landfill containment design. Justified changes to compliance limits may also be considered as part of this application.
- Upon successful determination of the variation application by NRW, RWE can proceed to implement proposed changes to original final landform and any proposals to address underperformance associated with the original landfill

containment design (or before determination at RWEs risk).
- Following implementation of changes permitted by the variation a period of evidence gathering of sufficient duration will be necessary before NRW will approve initiation of closure when there is full compliance with the permit conditions, including completion of the final revised landform and associated infrastructure.
- Closure report submission, assessment, and final site inspection to confirm closure conditions have been achieved can then take place.
- Upon confirmation of achievement of closure conditions RWE can apply to NRW for a variation to update the permit for the aftercare phase.
- A permit surrender application may be made after a period of stable compliant monitoring results is achieved with no active management of the site.

The variation of the current quarry landfill permit to incorporate the revised final landform will be:

- A normal variation application, noting that the revised permitting charging scheme will be implemented from15 January 2024.
- The application will need to include details of the changes to final profiles, an assessment of these proposed changes on the environmental performance of the landfill containment design and a revision of the “working plan” to address the short-term risks associated with the reprofiling works.

The latter will need to include an assessment of potential changes in risk and associated controls for:

- Water quality impacts
- Dust and noise impacts

Site Inspection 2023

A planned inspection was carried out on 15/11/23 to check surface conditions and review drainage performance of existing restored phases.

The finished but unrestored phases 3a and 3b surfaces were well compacted but also “spongy” in places due to water infiltration at least in shallow top layer. This will presumably result in any contamination either flowing into the surface water system or possibly deeper infiltration.

All restored surfaces inspected were well sealed and vegetation established on slopes is helping to reduce erosion in most areas, although some surface flow gullies were apparent where phase 1 slopes to the access road to the quarry floor.

The restored phase 2 plateau was traversed to the perimeter drain to establish if surface flow is shedding to the drains effectively. There was a noticeable increase in surface wetness towards the drained edge suggesting that the cap is limiting infiltration although the drainage system may need maintenance or improvement to prevent accumulation of water in the restored surface topsoil. Resolution of this issue is likely to be important for satisfactory return of the restored site to agricultural use.

The settling lagoons and compliance boreholes on the western side of phase 1 adjacent to

the surface water ponds were inspected, including the replacement borehole for E05/03. Artesian pressure in borehole E05/03 and its generally poor corroded condition was noted. The flow from the borehole was unexpected and has not been reported or any commentary provided in HRA reviews but was said to be permanent, except perhaps after prolonged dry weather.

This artesian pressure casts some doubt on the premise that elevated monitoring results in E05/03 are due to surface water infiltration unless there is some mixing of the confined groundwater (possibly by the phase 1 deposit) causing the pressure with entrained surface water percolating into the limestone bedrock. The performance of the replacement borehole will be important in understanding this and initial data suggest elevated PFA indicator species are present.

NRW has investigated the surface water discharge route from the quarry. There is an underground drain/pipeline that discharges water from the PFA lagoons, via the quarry surface water ponds and from the working quarry into the redundant water abstraction feeder/leat from the River Kenson. The feeder is redundant because the weir that originally directed water into the leat from the Kenson has been knocked through and so the only water entering the leat is that from the quarry or returning from the cement works surface water drainage system.

The cement works abstracts from the leat to provide process/cooling water for the process. There is no flow data for the leat overflow weir into the Kenson just upstream of the confluence with the River Thaw, which is also still tidal up to this point. Abstraction flow data for comparison with the estimated inputs from the quarry may be available but estimating the discharge flow rate into the Kenson will be difficult because of the recirculation from the leat into the cement works and back with associated unknown evaporative and other losses.

There is no routine analysis of the leat discharge into the Kenson and consideration will need to be given into whether this is necessary as the ultimate surface water receptor.

ACTION: RWE Generation to consider the need for and practicality of surface water discharge monitoring into the River Kenson as part of aftercare phase monitoring requirements.

Review of Stability Risk Assessment (SRA) for the proposed revised Restoration Plan (Appendix B)

A satisfactory SRA has been carried out that covers the stability of the existing and the new slopes after the reprofiling restoration work has been carried out.

Settlement – Long-term settlement of PFA material is claimed to be minimal for the restored areas and for the remaining site after reprofiling (due to the intention of compacting the PFA in a controlled manner).

Stability of existing slopes – These slopes have an overall slope angle (OSA) in the range of 1V:3H and 1V:4H with an acceptable but low factor of safety. There is a steeper section in Phase 1 at 1V:2.5H that shows localised erosion of the exposed PFA. To improve the stability of the Phase 1 and 2 slopes it is proposed to cut back the crest of the slope (reducing the OSA) and include a new drainage ditch (ditch 2) at the crest to divert surface water away

from the slopes.

The following points should be considered before finalising the design:

1. The slope stability analyses have been carried out for only the drained condition for all the material types that occur at the site, including the PFA waste mass which is assumed to be free draining with no likelihood of porewater pressures occurring. This is arguably reasonable if there is no/little infiltration from the surface due to the very low PFA permeability or (specific to this site) the basal drainage layer is successfully ensuring there is no build-up of groundwater pressures to infiltrate from the base. However, there is no monitoring within the waste mass to confirm these assumptions. Consideration should be given to installation of deep boreholes into the base of the waste mass in verify the assumptions.

2. The crest ditch will cover the Phase 1 slopes but will not continue for the Phase 2 slopes. Continuing the crest ditch would be advantageous in protecting the Phase 2 slopes from long-term erosion, however it may be that the gradient falls make this difficult practically. Continuation of the ditch should be considered if possible.

3. Proposed revised reprofiling – the reprofiled areas will have an improved gradient (compared to the existing relatively flat Phase 1 and 2) which should improve surface water drainage off the landfill and limit potential infiltration. Together with the improvements to the existing perimeter drains and the new drainage ditches the stability of the slopes (including erosion) should be improved after the restoration work.

4. A potentially problematic aspect of the works is the proposed infilling of the access road cutting that bisects Phase 1 and 2, which will create a larger flat area with longer drainage paths in an area that is currently not draining particularly well, i.e., the road cutting *may* be currently helping surface drainage. It is understood that the reason is to provide a workable sized area for grazing by avoiding ditches, however the need for additional drainage in this area should be re-considered. Buried land drains would avoid a ditch, for example.

5. New perimeter drainage is proposed in Phase 4 across the limestone quarry floor. Consideration should be given to impermeable lining of the ditches (and the attenuation pond) to reduce the opportunity of surface water infiltrating to groundwater.

6. New perimeter ditches will be constructed to the 2009 design. According to the drawing 1521/016A it appears that the perimeter ditch base will be hydraulically connected to the basal drainage layer and hence to groundwater. If this is correct it would be an improvement to line the base of the ditch with an impermeable membrane (rather than the permeable protection geotextile) to isolate surface water from a pathway to groundwater. Similarly, if the intermediate drain within the PFA had an impermeable membrane base this may reduce potential infiltration into the PFA.

ACTION: RWE Generation to address the aspects raised above in the application for permit variation to incorporate proposed changes to the original pre-settlement contours and final landform.

Replacement borehole CQA plan

A CQA Plan for borehole redrilling works at the Aberthaw Quarry Ash Disposal Site in 3 phases was submitted on 18 August 2023 in compliance with permit condition 2.7.4.

The CQA plan was approved, subject to the following comments being addressed at the construction stage:

1. The method of backfilling abandoned boreholes (Section 5.8) should be the same as specified for forming the new wells and the decommissioning of boreholes, see Section 5.6.16 & 5.10.4 respectively (i.e. pumping grout to the base of the borehole using a tremie pipe). The proposed method of tipping grout pellets into the borehole is not appropriate for the ground conditions due to the risk of bridging and voids.
2. Care should be taken so that bentonite grout used in the decommissioning (backfill) of the boreholes/wells to be replaced does not impact the response zone of the new replacement wells. This may include (a) ensuring the new wells are sufficiently distant from the old wells, (b) keeping a record of the quantities of bentonite used, to indicate significant loss of bentonite from the well, (c) other methods to prevent substantial loss of grout to limestone.
3. All new wells should have a response zone that extends deep enough to still have at least 1 m of groundwater (not including the water within the sump (silt-trap) at the lowest anticipated groundwater levels at the location of the well. This is to ensure that groundwater can still be monitored during dry (low level) periods.
4. The top of casing (or datum for measure depths to groundwater / groundwater elevations) should be surveyed to an accuracy of 5 mm or less to allow accurate comparison of groundwater levels between wells and construction of groundwater elevation contour maps, as required.

A revised plan taking these points into account was submitted on 15/9/23 and approved.

The CQA Verification report for the phase 1 borehole replacement works at the Aberthaw Quarry was submitted on 7/11/23. In summary the completed works covered:

- E23/03 replacing E05/03 (considered unrepresentative in the latest HRA review, but retained for initial comparison)
- E23/04B replacing E06/04 (damaged by the adjacent active quarry operator)

RWE raised the point that the two new locations have not been fully surveyed and therefore the GW levels in E23/03 & E23/04B cannot be calculated to mAOD. The contractor proposes to undertake this work after all the new locations have been installed, but as the timing of phases 2 and 3 is not yet known this could be some time in the future. It is acceptable to report levels to mbd until the borehole surveys are undertaken and then recalculate the new locations to mAOD until such time as the issue causes difficulties interpreting the data. However, it would be preferable to undertake the survey work as soon as practicable to minimise the potential for delays in data interpretation causing future problems. RWE will need carry out a risk assessment to determine how long the situation might be tolerable.

Abandonment of E23/04B following collapse of the bore prior to completion was not fully in accordance with the CQA plan. The abandonment detailed is considered to be sufficient,

subject to no issues subsequently arising at the location in future.

HRA review

The latest hydrogeological risk assessment (HRA) update has been reviewed and following observations and comments are made:

1. Overall, the HRA provides a good summary of recent past and current water-related issues (hydrology and hydrogeology) at the site. Although this is not an editorial review of the report, the following comments / requests below are important to help our future assessments:
    a. Table 4-1 Monitoring Borehole Installations would benefit from a column showing Response Zone (RZ) depths in mAOD; this is to enable easy direct comparisons of the depths the RZs between boreholes and relate depth of penetration into the underlying limestone aquifer. Ian spent some time estimating these RZ depths in mAOD as part of my review, but it would help to also have the following additional information tabulated in the HRA: Ground Surface Elevation at BHs, survey datum at each BH, depth of contact with bottom of PFA and bedrock (mBGL and mAOD). This would also allow GW elevations to be compared with bottom of PFA fill.

    b. Related to (1) a., it would be very helpful if a surface elevation contour map of the top of the bedrock/ bottom of PFA could be provided. We presume all these data and figures are already available or quick to produce.

    c. Update the table with the new, recently installed boreholes, but keep the details of the former / abandoned boreholes in the table.

    d. The 'contaminant' iso-concentration plots on pages 50 to 53 are misleading. They are drawn by contouring software, such as Surfer™ or AutoCad, which, due to the lack of data points within the landfill (centre of site) automatically draws contours based on linear interpolation of gradients, essentially producing a false representation of the data. This is a common issue with contouring software; best practice is to avoid their use when there is an insufficient spatial distribution of data points. In this case, either have an experienced hydrogeologist draw contours by hand only where data and CSM support the drawing of the contours; or just put concentration values next to each data point. Regardless, values should always be included next to all data points used for contouring; this also applies to the groundwater elevation contour plots on page 49.

    e. The time series graphs of contaminant concentrations in Appendix A are difficult to compare as the y-axis scales vary considerably. We wanted to compare upgradient data (e.g. BH E15/1) with down-gradient data (e.g. E06/03), but this is not easy to do. Some other BHs (e.g. E05/03) are reported to be heavily influenced by surface water (see further comments on this below), so comparisons of upgradient with down-gradient groundwater solutes is not possible. Comparison of upgradient (background) groundwater quality with down-gradient groundwater quality is a cornerstone of groundwater

assessments.

f. The figures of the site plans included within the text are low resolution and do not support enlargement for viewing details and text; small text is not legible. We recommend that these be reproduced at a higher resolution.

g. Inclusion of realistic (not schematic) geological / hydrogeological cross-sections with details of boreholes, geology, surface features and topography would be very useful. Although not essential, it seems a lost opportunity not to produce at least one detailed to-scale cross-section N-S along the western boundary of the PFA fill, where most of the boreholes and important surface water features are located.

2. We have previously discussed this with RWE and state for the record that many of the questions and uncertainties regarding the interaction between the PFA, rainfall, hydrology and surface water and groundwater could be partially or fully addressed with the drilling of between 1 and 3 boreholes (and installing 2 to 6 monitoring wells/piezometers) within the PFA landfill. Boreholes could be drilled using a cased coring method, such as ODEX or Roto-Sonic, to obtain cores through the PFA and underlying soil and aquifer material. A dual-nested shallow and deep monitoring well configuration could be installed in each borehole.

   Soil moisture, physical properties (permeability, porosity etc.) and chemical data could be obtained from the core at select depths, and the underlying groundwater. These data could then be used to help confirm the permeability / water transmissive properties of the PFA, and the chemical impacts of the PFA on the underlying groundwater, away from the influences of surface water features, which have made impacts of the PFA on groundwater difficult to establish. As the HRA states, the PFA is thought to be physically stable with a very low hydraulic conductivity, so the impact of drilling within the PFA body would be negligible, especially after appropriate sealing of the well completions. The installed wells would then allow a more representative interpretation of groundwater gradients and PFA impacts on groundwater, helping to further separate surface water issues from groundwater issues.

3. When looked at in the context of the surrounding topography, water courses, coastline and other likely areas of groundwater discharge, the groundwater elevation contours on page 49 of the HRA indicate that there is potentially significant rainfall infiltration into the PFA landfill, which migrates through the PFA to the underlying drainage blanket. Further consideration of the hydrogeology and water balance is needed to support the arguments put forth in Sections 4.2.2, 4.3.9, It would be helpful to graphically compare the elevations of the quarry base and associated drainage blanket with groundwater elevations; and to calculate groundwater and surface water fluxes and consider the overall water balance of the site to support the current hydrogeological conceptual site model. Does the estimated surface infiltration rate for the area of landfill (244,700 m^2) of 0.0350 l/sec (~3m^3/day) fit with water balance (inputs-outputs) estimates for the site?

4. 7.5.4 states: "The drainage system designed for the restored landform (29 ha) has been designed on the bases of a 1:200 year plus 40% climate change rainfall event. The mean annual flood flow i.e. the quick flow element of the rainfall event, has been computed to be 0.235132 m3/sec on the restored area. The drainage system and associated settlement ponds has adequate capacity to manage such

flood event. The runoff water i.e. the quick flow element of a rainfall event will be followed by a lower rate of flow via infiltration and percolation within the soil/subsoil layers. When the percolated waters reaches the drainage layer the water will run principally horizontally on top of the low permeability compacted PFA and mirror the topographical fall to discharge into the surface water drainage system. This slow movement of water after a rainfall event is interflow. Interflow is the lateral movement of water in the unsaturated zone, or vadose zone, which returns to the positive surface drainage. Post antecedent rainfall events a large volume of water will arrive in the settlement ponds after a relatively short period of time the majority of the infiltrated and percolated water will arrive via interflow sometime later. A portion of the infiltrated water will be available for evapotranspiration and crop uptake and only a very small amount of water has the potential to infiltrate into the 700 mm compacted PFA layer."

0.235132 m^3/sec on 29 ha (290,000 m^2) is only 2.9 mm/hr, which seems very low for such an event and using a conservative SPR of 0.5. Overall, the above statement seems optimistic, please review this. The calculations are included in Appendix B; upon checking the calculations for QBAR, converting everything to metres, Ian got 5.2236 m^3/s or 64.85 mm/hr. These calculations require checking.

5. 7.5.7 states "The extremely low infiltration potential through the low permeability compacted PFA will prevent leaching of soluble material from the landfill." Pedantically, based on calculations in the HRA (see 7.5.6), this is not strictly true, as 0.035 L/sec or 3.024 m^3/day is estimated to infiltrate.

6. 9.1.3 states: "Surface water monitoring analysis data from the settlement ponds, discharge point on site and the cement works lagoon (where discharge from the site is ultimately released) has been reviewed and has indicated that elevated levels of some parameters, most notably molybdenum, sulphate, and chloride. However, the majority of monitored determinands have concentrations that are at acceptable levels."

   This is a generalisation, giving the false impression that parameters are at acceptable levels. Parameters that exceeded the emission / compliance limits at SP and/or DP2, for example, include: ammoniacal nitrogen, boron, chromium, sulphate, and molybdenum. It is apparent from the report that PFA impacts are occurring in surface waters. The case needs to be robustly made that after the new restoration scheme is complete the concentrations of pollutants in surface waters leaving the site will decline and be controlled or stabilise at environmentally protective levels.

7. We recommend a compliance point after the lagoon compliance point, at the point at which site drainage leaves the site boundary. We need to be clear on where all drainage water leaves the site and what the final 'sensitive' receptors are.

8. We note that the lagoons / surface waters are potentially impacting borehole E05/03 and agree with the installation of a replacement borehole (now completed). It will be interesting to see the analytical results from the new borehole (E23/03). However, given the artesian pressure in the borehole, the fact that the surface water is impacting the groundwater chemistry in borehole E05/03 demonstrates that surface water is connected to groundwater in this area, and so groundwater will continue to be impacted by surface water infiltration. More boreholes may be needed in this area and down-gradient to assess impacts on groundwater.

9. 8.1.7 states: "The existing compliance limits and control levels have been assessed following a review of the water monitoring dataset provided in Section 5. For those determinands where consistently elevated concentrations have been identified and are likely to be related to the drainage from the landfill site prior to the proposed restoration works, it is considered that these are modified

temporarily so that any further unacceptable trends (i.e. increases in concentrations) are identified rather than exceedances continuing to identify consistently elevated concentrations. It is considered that these should then be re-evaluated at approximately one year after the restoration scheme is completed with the temporary compliance limits and control levels revised to lower concentrations."

Following recent discussions, we now understand that RWE does not intend to formally put forward the proposal to temporarily raise the compliance limits. Nevertheless, we recommend that the anticipated application to vary the landfill permit to incorporate the revised landform is an opportunity to re-assess compliance points and compliance limits for the future. This should be done based on risk assessment to controlled waters, ecology etc.

10. The HRA is lacking consideration of the wider aquifer / hydrogeological system outside of the site boundary. We would like to see the site placed within the wider context, showing regional / area groundwater gradients, water levels and potential external pathways for contaminants. This information may be in earlier documents, but nevertheless there is no reference to the wider hydrogeological context in the HRA. This is important for understanding the effect / impact of the quarries and PFA landfills on the wider hydrogeological / hydrological environment.

11. 4.3.3 states: "Fracture flow has been identified as the predominant flow mechanism in this formation. Hydraulic conductivities in the Porthkerry Formation of between 2 x 10^{-8} m/s and 7 x 10^{-6} m/s have been identified on site by in situ testing (Entec, 2005) indicating a relatively low hydraulic conductivity. Typically fracture flow would result in much higher K than noted above. This also creates issues for contaminant transport and identifying pathways.

It is necessary to understand more about how the site sits within the surrounding landscape, and in this context the 'regional' hydrogeology and hydrology. A clear understanding of how water moves from upgradient of the site to down-gradient of the site and the resulting fluxes and changes in water quality is required. An understanding of the pathways to controlled water receptors (groundwater, rivers, coastline) is needed. This information will allow review the permit to ensure the protection of the environment in light of the operational data now available since the original determination, incorporating effective monitoring and mitigation. Currently there is uncertainty relating to the impacts of the PFA on underlying groundwater and impacts on surface water are more apparent.

ACTION: RWE Generation to address the aspects raised above in the application for permit variation to incorporate proposed changes to the original pre-settlement contours and final landform.

Monitoring reports

Six monthly and annual monitoring data (condition 4.2.1) from 2017 to 2023 have been reviewed and the following points noted:

Elevated molybdenum and sulphate concentrations have continued in borehole E05/03, it's replacement E23/03 and the surface water monitoring locations.

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.

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 only relating to the activity assessment
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 – Emissions to water, air or 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.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at 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.