Cyfoeth Naturiol Cymru
Natural Resources Wales

Compliance Assessment Report CAR_NRW0051940

Permit being assessed: NP3233XX.

For: Bridgend Waste Management Centre, **held by:** Tradebe Gwent Limited

At: Factory Lane, Pencoed, BRIDGEND, CF35 5BQ.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 20/05/2026.

Parts of permit assessed: 1.1.1(a) and 2.3.3 and 2.5 and 3.1.2 and 3.1.4 and4.3.1(b).

NRW Lead Officer: Geraint Harris.

Report sent to: Site Manager, Site Manager, on 20/05/2026.

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	Action only (X)	
IR1A - Installations - Management - General Management	Action only (X)	
IR2C - Installations - Operations - Operating techniques	Action only (X)	
IR4B - Installations - Information - Reporting	Action only (X)	
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	Action only (X)	
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3.1.2
IR3A(3) - Installations - Emissions and monitoring - Emissions to land	Action only (X)	
IR4C - Installations - Information - Notification	Assessed (A)	
IR2E - Installations - Operations - Improvement programme	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
1	4

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	New Action 1: NRW require Tradebe to review and further revise the MoC arrangements and resubmit the Action 1 response, ensuring that the above points are addressed. Due 21st June 2026.	21/06/2026
IR1A	New Action 2: NRW recognises the value of commissioning an independent consultant to ensure that the EMS audit is thorough and objective. An extension is therefore agreed. Tradebe should progress this work without delay and provide NRW with an update on progress by the 1st June 2026. The final audit report, findings, and evidence of completed improvements should be submitted as soon as reasonably practicable following completion of the review.	01/06/2026
IR2C	New Action 3: In order to complete the assessment, the operator is required to provide further information addressing the points from action 3 in the main text by the 21st June 2026:	21/06/2026
IR4B	New Action 4: NRW requires further detail on how the proposed "4 eyes" approach will operate in practice, how it integrates with the Environmental Management System, and how it will ensure that previous reporting errors do not recur and that risks of pollution are appropriately minimised. Due 21st June 2026.	01/06/2026
IR3A(1)	New Action 5: Tradebe is requested to provide a progress update by 1st June 2026, including: • The status of the 12 week mercury monitoring programme • Whether the programme has been completed as specified • Any results obtained to date and initial interpretation • Any issues encountered during implementation	21/06/2026
IR3A(1)	New Action 6: It is required that the operator undertake further investigation to: • Characterise the composition of AOX present in the effluent; • Review sampling protocols and cleaning procedures, including composite sampler integrity; • Assess potential contributions from drum, container and equipment washing activities in line with Waste Treatment BREF good practice;	21/06/2026

Criteria	Action needed	Complete by
	• Evaluate the fate of AOX within the receiving wastewater treatment works and sludge streams.	
IR3A(3)	New Action 7: Provide NRW with an update regarding the progress of groundwater and soil monitoring (permit condition 3.1.4) . Due 21st June 2026	21/06/2026

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

Tradebe - NP3233XX

Car Form NRW0050640 Action Responses

CAR_NRW0050640 Action 1:

Action1: Tradebe must review, update, and implement its Management of Change (MoC) procedure to ensure that any change to monitoring methods, sampling plans, analytical arrangements, operational practices, or compliance related activities cannot be introduced without full regulatory assessment. Tradebe must submit the following to NRW:

- A copy of the revised MoC procedure,
- Evidence of how it has been implemented into the site management system, and
- A brief statement explaining how the revised system will prevent recurrence of the non-compliance identified under permit condition 1.1.1(a).

Tradebe Response:

"Attached is a copy of our site specific MOC procedure PBHS 114. The procedure has been adapted to cover procedural & regulatory changes and will be used in conjunction with form FBHS 024 and now forms part of our management system.

The revised system is a move away from the previous MOC procedure, which was heavily biased to engineering changes. PBHS 114 is more focused on procedural changes and will therefore ensure that the appropriate questions and checks are asked when a change of this type is made."

NRW Review:

Thank you for your submission in response to CAR_NRW0050640 Action 1, including the revised

Management of Change (MoC) procedure (PBHS 114) and supporting form (FBHS 024).

NRW acknowledges the progress made in broadening the scope of the MoC process beyond engineering changes. In particular, the inclusion of organisational and management system changes represents a positive step forward.

For clarity, NRW's expectation is that Tradebe's management system provides a robust and systematic framework to ensure that any changes with potential compliance implications are:

- clearly identified,
- subject to a proportionate and documented assessment, and
- formally approved prior to implementation.

These expectations reflect the requirements of permit condition 1.1.1(a), which requires the operator's management system to identify and minimise risks of pollution, including those arising from changes to operations. In its current form, the MoC process does not provide sufficient assurance that such risks will be systematically identified and controlled prior to implementation.

Furthermore, changes to monitoring methods, sampling arrangements and operational practices have the potential to affect compliance with permit conditions, including those relating to operating techniques (condition 2.3.1), emissions and monitoring requirements (condition 3.5), and the requirement to notify NRW of changes that may have environmental consequences (condition 4.3.5). The absence of clear triggers and controls within the MoC process therefore presents a risk that changes could be implemented without appropriate regulatory consideration or notification.

This is inconsistent with the expectation that the environmental management system provides a structured and auditable framework for controlling changes and ensuring ongoing compliance with permit requirements.

While the approach taken shows some improvement, further development is required to demonstrate that the system can reliably achieve this outcome.

In particular:

- The revised procedure does not clearly demonstrate how changes to monitoring methods, sampling plans, analytical arrangements, and operational practices will be systematically identified and assessed for their impact on permit compliance.
- There is no clearly defined and structured environmental or regulatory assessment stage within the process capable of consistently identifying compliance risks.
- The MoC form (FBHS 024), while including high-level environmental prompts, does not provide sufficient structure to ensure that impacts on permit conditions are fully considered or recorded in a consistent, transparent, and auditable manner.
- The relationship between the procedure and form is not clearly defined, and it is not evident how they operate as an integrated control system.

- The process does not clearly demonstrate that appropriate approval and sign-off controls are in place, or that compliance-critical changes are prevented from implementation until regulatory implications have been fully assessed.
- The process does not establish clear triggers or criteria for when regulatory or permit implications must be considered, resulting in a continued reliance on individual judgement rather than a systematic approach.
- The statement provided does not sufficiently explain how the revised system will prevent recurrence of the identified non-compliance, particularly in terms of identifying regulatory triggers, ensuring adequate assessment, and preventing uncontrolled change.

New Action 1: NRW therefore require Tradebe to review and further revise the MoC arrangements and resubmit the Action 1 response, ensuring that the above points are addressed. **Due 21st June 2026.**

CAR_NRW0050640 Action 2:

IR1A - Action 2: To fully determine the extent of the EMS failure in relation to regulatory notifications, NRW now requires Tradebe to undertake its own internal investigation into the adequacy and effectiveness of its management system. This should include a detailed review of the EMS sections dealing with incident management, non- conformance, monitoring, and communication, with particular emphasis on whether a dedicated Regulatory Notification Procedure exists and is being followed in practice. Tradebe must identify any procedural gaps, governance weaknesses, or training deficiencies that have contributed to the missed exceedances and failure to notify NRW, and set out the corrective and preventative measures it will implement to ensure full compliance with permit requirements, including Condition 4.3.1(b). Completion of this review, along with evidence of improvements, should be provided to NRW by the 13th of March 2026.

Tradebe Response: "*In order to carry out a full and balanced audit of Tradebe Bridgend's Environmental Management System, we feel that this requires the use of an independent consultant, We would like to ask for an 8 week extension to the deadline proposed in order to complete the action.*"

NRW review:

New Action 2: NRW recognises the value of commissioning an independent consultant to ensure that the EMS audit is thorough and objective. An extension is therefore agreed. **Tradebe should progress this work without delay and provide NRW with an update on progress by the 1st June 2026**. The final audit report, findings, and evidence of completed improvements should be submitted as soon as reasonably practicable following completion of the review.

CAR_NRW0050273 Action 24

IR1A - CAR_NRW0050273 Action 24: Please provide a detailed root cause investigation into the AOX exceedances recorded in 2025, including contributing factors, operational or process changes, and any corrective or preventative measures identified. Response due 13th March 2026.

Tradebe Response : "We have attached a root cause analysis (FGHS 104) regarding the AOX

exceedances as requested."

NRW Review:

NRW have received Tradebe's root cause assessment as required by the action above. The report states that the site has experienced eleven AOX exceedances over a twelve-month period, indicating a persistent compliance issue rather than isolated operational failures. This is particularly significant given that the BREF limits for AOX have been implemented in Wales, where regulatory requirements are not required to align with those in England.

A key contributing factor identified in the root cause analysis is that the permitted technology currently in place is not capable of effectively removing AOX. This creates a fundamental mismatch between the emission limit values that must be achieved and the technical capability of the existing treatment processes. From a regulatory perspective, this presents a significant concern, as it indicates that compliance may not be consistently achievable without process modification or additional treatment capacity. This is not simply an operational issue but points to a structural gap in the site's ability to meet Best Available Techniques (BAT) requirements.

In particular, the Waste Treatment BREF (Section 2.3.2.1 (ii) and (iii)) requires that wastes are fully characterised and technically assessed to ensure they are suitable for the intended treatment, and that the installation is capable of treating them in compliance with permit conditions. This includes, where necessary, sampling, analysis, and testing to confirm that treatment will be effective. It must also be ensured that the waste accepted is compatible with the installation's treatment capability.

On this basis, the current situation raises concerns that wastes containing AOX may be accepted without sufficient assurance that the site can effectively treat them to meet permit requirements, indicating a disconnect between waste acceptance procedures and actual treatment performance.

Further compounding the issue, according to Tradebe's root cause analysis, is the lack of visibility and control over AOX entering the process. According to Tradebe "Waste producers are not declaring AOX within the MAQ process", meaning that inputs containing AOX are potentially being received without adequate characterisation. From a regulator's perspective, this raises concerns about whether the current waste acceptance framework is sufficiently robust to ensure compliance with permit requirements, particularly in relation to the characterisation and control of incoming waste streams.

This issue is directly addressed by BAT Conclusion 2 of the Waste Treatment BREF, which requires operators to establish and implement robust pre-acceptance and acceptance procedures to ensure that wastes are fully characterised, verified, and suitable for the treatment processes applied. In particular, BAT 2 requires operators to verify waste information provided by producers and to undertake additional sampling and analysis where necessary, rather than relying solely on declared information. The absence of AOX within the MAQ process indicates that such verification is either not being undertaken or is not sufficiently effective to identify halogenated organic compounds prior to acceptance.

In addition to BAT requirements, this expectation is reinforced by the site's environmental permit conditions. Condition 2.3.3(b) requires that waste shall only be accepted if it "conforms to the description in the documentation supplied by the producer and holder". However, this must be read in

conjunction with Condition 1.1.1(a), which requires the operator to operate under a management system that identifies and minimises risks of pollution. Taken together, these conditions do not allow for passive reliance on producer-supplied information where there is a foreseeable risk of mischaracterisation or omission. Where contaminants such as AOX may reasonably be expected, the operator is required to take appropriate measures to verify and supplement that information to ensure that pollution risks are effectively controlled.

Furthermore, Condition 3.1.2 requires that emission limits shall not be exceeded, and the permit sets a strict AOX limit of 1 mg/l in discharged effluent. This establishes a clear and absolute obligation on the operator to ensure that all aspects of the operation are controlled such that compliance with this limit is consistently achieved.

In this context, it would be reasonably expected that the operator has sufficient knowledge and control of AOX within incoming waste streams, given that it is a regulated parameter with a defined emission limit. The failure to adequately characterise incoming waste for AOX directly undermines Tradebe's ability to comply with this requirement, as uncharacterised inputs cannot be effectively managed within the treatment process.

This is particularly significant where Tradebe's own root cause analysis identifies that the existing treatment system has limited capability to remove AOX. In the absence of effective input controls, the acceptance of wastes containing undeclared AOX creates a foreseeable and unmanaged risk of emission limit exceedance. As such, the issue is not limited to waste acceptance procedures but represents a wider failure to ensure that operational controls are aligned with the requirements of Condition 3.1.2.

In this context, the lack of AOX identification at the acceptance stage represents a clear misalignment with both BAT 2 and the permit's core management and waste acceptance requirements. It indicates that Tradebe is not exercising an appropriate level of control over incoming waste streams to ensure that they are suitable for treatment and that compliance with emission limits can be consistently achieved.

Overall, the combination of undeclared AOX, limited analytical capability, and reliance on producer information without sufficient verification weakens the site's ability to demonstrate compliance with both duty of care and permit requirements. Strengthening the review of WM3 assessments and adopting a more risk-based approach to waste acceptance will be essential in addressing this gap.

At present, Tradebe's approach appears to be focused on identifying exceedances after they have occurred, rather than implementing controls to prevent them, which is not consistent with the requirements of BAT or the proactive risk management expected under the permit.

New Action 3: In order to complete the assessment, the operator is required to provide further information addressing the following point by the **21st June 2026**:

Waste Acceptance and Characterisation (BAT 2):

Provide a detailed description of how AOX risk is currently assessed at:

- Pre-acceptance stage

- Acceptance stage

What specific steps are taken to:

- Identify wastes likely to contain halogenated organic compounds?
- Challenge or verify WM3 classifications where AOX is not declared?

Are any proxy parameters, source-based screening, or conservative assumptions used to identify AOX risk?

Control of AOX in Incoming Waste:

- Provide data (where available) showing:
- AOX concentrations in representative incoming waste streams

Where no data is available:

  - Explain how the site determines that wastes are suitable for treatment

- Identify:
  - Waste streams most likely to contribute to AOX exceedances
  - Any restrictions currently applied to these streams

AOX Monitoring and Analytical Capability:

- Provide a detailed description of the current AOX monitoring arrangements, including:
  - Status of the internal analytical method
  - Actions being taken to resolve identified issues
- Confirm how AOX data is currently obtained, including:
  - Use of external laboratories
  - Sampling frequency and turnaround times
- Explain how the current monitoring approach supports operational control, including:
  - How results are used to inform waste acceptance decisions
  - How exceedances are prevented, rather than identified retrospectively
- Provide an assessment of the limitations of the current approach, including:
  - Any risks associated with sample storage and delayed analysis
  - The impact on the site's ability to ensure compliance with the AOX emission limit

Compensatory Measures (given AOX testing constraints):

- Given that AOX cannot be effectively measured at acceptance, describe:

- What alternative control measures are in place to ensure compliance with the ELV

- Explain whether the site applies:
  - Conservative acceptance criteria
  - Waste rejection policies
  - Segregation or blending controls
- Provide evidence of how these controls have been applied in practice

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CAR_NRW0050273 Action 23

R4C - CAR_NRW0050273 Action 23: Please provide a Schedule 5 Notice with the completed part B section for both AOX exceedances stating your measures taken, or intended to be taken, to prevent a recurrence of the incident.

Tradebe Response: *"Schedule 5 with completed part B's submitted to NRW on 05/03/2026"*

NRW review: The Part B's have been received by NRW. **Action complete**

CAR_NRW0050640 Action 3

IR4b - Action 3: Tradebe are therefore required to review the Q2 and Q3 returns in full, identify the cause of the error, and resubmit corrected data. Tradebe must also provide an explanation of the steps taken to ensure that future reporting processes are robust and prevent similar occurrences. Due 13th March.

Tradebe Response: "*On investigation it was identified that the duplicate data related to the Q3 submission. Moving forward the site will adopt a "4 eyes" approach to all submissions to NRW ensuring that data is checked by two persons before submission is made."*

NRW review: Action completed 13th March 2026.

New Action 4: NRW requires further detail on how the proposed "4 eyes" approach will operate in practice, how it integrates with the Environmental Management System, and how it will ensure that previous reporting errors do not recur and that risks of pollution are appropriately minimised. **Due 21st June 2026.**

CAR_NRW0050640 – Action Mercury Monitoring Update Request

The due date for the action requiring Tradebe to undertake an intensified 12-week monitoring programme for mercury emissions has now passed. This programme was intended to demonstrate that mercury emissions to water are consistently low and stable, supporting any future consideration of reduced monitoring frequency.

To date, NRW has not received confirmation of completion of this monitoring programme or submission of the associated results.

New Action 5: Tradebe is requested to provide a progress update by **1st June 2026**, including:

- The status of the 12-week monitoring programme
- Whether the programme has been completed as specified
- Any results obtained to date and initial interpretation
- Any issues encountered during implementation

AOX Exceedances

Monitoring data received via Schedule 5 notifications indicates that the AOX emission limit of 1 mg/l has been exceeded on multiple occasions during Q1 2026. Reported results are as follows:

- 13/01/2026 – 2.74 mg/l
- 10/02/2026 – 10.9 mg/l
- 10/03/2026 – 10.9 mg/l

All results significantly exceed the permitted AOX limit specified in Schedule 3 of the permit.

Different permits have different reporting periods. Consolidation allows NRW to treat each operator consistently. NRW will enter one non-compliance for each emission limit value that is breached during a quarter, regardless of reporting period. All identified exceedances fall within Q1 2026. The highest recorded concentration of **10.9 mg/l** has therefore been used to determine the compliance category. The repeated exceedances are consistent with findings from the operator's root cause analysis, which identified:

- Limited treatment capability for AOX
- Lack of reliable input characterisation
- Constraints in analytical capability

In the absence of an agreed and implemented improvement plan, the site remains in non-compliance with Condition 3.1.2, with no confirmed mechanism in place to achieve compliance in the short to medium term. While proposals to upgrade treatment have been identified, these remain unapproved and unimplemented.

Monitoring data indicates that effluent discharged from the installation to sewer has contained concentrations of Adsorbable Organic Halogens (AOX) typically in the range of 1–4 mg/L, with recorded peaks of 10.9 mg/L. Based on an annual discharge volume of approximately 35,904 m³, this equates to an estimated mass loading of approximately 36 kg/year at 1 mg/L (ELV level) and up to 391 kg/year under peak conditions. This represents an approximate tenfold increase in annual AOX loading during worst-case scenarios.

Although no direct environmental impact has been assessed or observed at the time of assessment,

NRW guidance allows categorisation based on potential impact where a credible source–pathway–receptor linkage exists. In this case, such a linkage is present. AOX is a screening parameter representing a wide range of halogenated organic compounds with varying properties. Whilst it is recognised that not all AOX components are bioaccumulative, many are persistent and resistant to biodegradation, and the parameter includes substances with known toxicity. As such, AOX is widely used as an indicator of organo-halogen contamination in wastewater.

The discharge presents a pathway for environmental exposure via the sewer network to the receiving wastewater treatment works. During treatment, AOX may not be fully removed and can partition between the treated effluent discharged to controlled waters and the sewage sludge. Where sludge is subsequently applied to land, this presents a secondary pathway for substances associated with AOX to enter soils.

The magnitude of the increase in mass loading is notable, with an additional loading of approximately 355 kg/year above the ELV-derived baseline under peak conditions. However, there remains a high degree of uncertainty regarding the specific composition of the AOX fraction discharged. In particular, the proportion of persistent, toxic, or bioaccumulative species within the total AOX is not known. As such, while the total loading is elevated, it cannot be assumed that this equates directly to a proportionate increase in environmentally significant or bioaccumulative substances.

There is evidence that some AOX compounds may exert inhibitory effects on biological wastewater treatment processes, and episodic peaks (e.g. 10.9 mg/L) could present a risk of short-term shock loading. However, in the absence of evidence of measurable impact on treatment performance or downstream water quality, this remains a potential rather than demonstrated effect.

Similarly, whilst AOX may partition to sewage sludge, the environmental significance of this pathway is dependent on the composition of the AOX fraction. Without characterisation of the specific compounds present, the extent to which persistent or bioaccumulative substances are being transferred to land cannot be determined with confidence.

The recorded peak concentrations exceed typical BAT-associated emission levels for AOX (0.2–1 mg/L), indicating variability in process control and a need for further investigation. In particular, there is potential for elevated results to arise from operational factors such as contamination within sampling equipment (e.g. residual AOX in composite samplers) or from inadequate cleaning of containers, drums or process equipment, which is identified in the Waste Treatment BREF as a known contributor to elevated AOX in wastewater streams (Section 2.1.6 – Cleaning and washing).

In accordance with NRW ‘s regulatory framework, Category 3 applies where impacts are limited and of minimal environmental significance, whereas Category 2 requires a credible potential for significant impact on water or land quality. In this case, whilst the mass loading is elevated and there is a theoretical pathway to environmental receptors, the uncertainty regarding the composition and environmental behaviour of the AOX fraction means that the potential impact cannot be robustly demonstrated as significant.

On this basis, the incident is assessed as having a **Category 3 (Minor)** impact. However, it is recognised that this assessment is **borderline with Category 2**, and further evidence (particularly relating to AOX speciation, persistence, or demonstrated impacts at the wastewater treatment works

or in sludge) could justify a higher categorisation.

New Action 6: It is required that the operator undertake further investigation to:

- Characterise the composition of AOX present in the effluent;
- Review sampling protocols and cleaning procedures, including composite sampler integrity;
- Assess potential contributions from drum, container and equipment washing activities in line with Waste Treatment BREF good practice;
- Evaluate the fate of AOX within the receiving wastewater treatment works and sludge streams.

Tradebe must provide an update by the 21st June 2026.

Periodic Groundwater and Soil Monitoring (permit Condition 3.1.4)

During the meeting held on the 21st January, Actions 26 and 27 from compliance report CAR_NRW0050273 were discussed with Tradebe. The operator requested additional time to review and analyse the next set of groundwater and soil monitoring data before progressing the agreed actions. NRW has agreed to temporarily suspend the deadlines for Actions 26 and 27. The position will be reviewed at the end of March to assess Tradebe's progress and determine the appropriate next steps.

New Action 7: Provide NRW with an update. **Due 21st June 2026**

Climate Change Risk Assessment

NRW have carried out a basic review of Tradebe's risk assessment. Overall, this represents a good first attempt at a Climate Change Risk Assessment, with clear effort made to identify relevant climate hazards, link them to site activities, and outline initial mitigation measures. The document demonstrates a solid understanding of the site and its key risk pathways, and provides a reasonable baseline in line with expectations for a light-touch assessment. However, the assessment would benefit from further development to bring it in line with best practice. In particular, improvements could be made by strengthening the consideration of interdependencies and worst-case scenarios, introducing clearer prioritisation of risks and actions and incorporating time-bound climate projections. With these refinements, the assessment would provide greater confidence in its ability to support long-term climate resilience and effective risk management.

Please be aware the CCRA is a live document and should be reviewed periodically as part of Tradebe's EMS and after any significant climate change related events or near misses.

Improvement Condition 6

The Operator shall complete and submit for approval a Phase 1 screening test report for priority hazardous pollutants and any other relevant priority hazardous substances discharged to sewer. For any substance which is not screened out by the screening tests, further modelling (as described in the risk assessment guidance "Surface water pollution risk assessment for your environmental permit") should be undertaken, and the results of the modelling submitted to Natural Resources Wales for approval.

The purpose of this improvement condition is to determine whether additional permit limits or treatment processes are required to ensure that the receiving watercourse remains adequately protected. Initial application of the H1 screening tool identified a number of substances that did not screen out, including several polycyclic aromatic hydrocarbons (PAHs), dioctyl phthalate, and terbutryn. However, the analytical data available at that time was significantly constrained by high limits of detection (LODs), which exceeded the relevant Environmental Quality Standards (EQS). As a result, the data were not sufficient to support a robust assessment using the standard screening and modelling approach.

In accordance with Environment Agency guidance, analytical data should ideally be reported to an appropriate minimum reporting value (MRV), typically in the region of 10% of the EQS, to enable meaningful assessment. Where this is not achievable, for example due to matrix interference requiring dilution, the limitations must be clearly justified. In this case, the nature of the effluent, characterised by a complex and contaminated ("dirty") matrix, necessitates dilution prior to analysis, resulting in elevated and variable LODs. Although further sampling was undertaken in 2023 using an alternative laboratory and generally achieved lower LODs, these remained above the corresponding EQS values in all cases and continued to exhibit variability between samples. This variability is considered to reflect differences in the level of contamination within individual samples rather than analytical inconsistency.

To progress the assessment, updated screening calculations were undertaken using the LOD values as conservative surrogate concentrations, in line with guidance which requires "less than" values to be treated at face value during screening. This represents a precautionary, worst-case approach. On this basis, several substances screened out at the early stages of the assessment, including dioctyl phthalate, fluoranthene and perfluorooctane sulfonic acid at Test 2 (Process Contribution), and terbutryn at subsequent stages. For the remaining PAHs, the combined annual mass load, calculated using LOD values, was significantly below the relevant significant load threshold of 5 kg/year for PAHs.

However, it is important to recognise that all calculations undertaken are based on LOD values that exceed EQS values, often by several orders of magnitude. This introduces a high degree of conservatism into the assessment and prevents a meaningful evaluation of actual environmental risk. Engagement with NRW laboratory services, Welsh Water, and accredited laboratories has confirmed that further improvements in LOD are not achievable for this type of effluent. As such, it is not technically feasible to obtain analytical data of sufficient sensitivity to underpin a robust modelling assessment.

Environment Agency guidance acknowledges that, where analytical limitations prevent data being reported at an appropriate MRV, and where further sampling is unlikely to improve data quality, it may not be possible to assess the impact of the discharge with sufficient confidence. In such cases, continued assessment or modelling will not provide additional useful information, and alternative regulatory approaches should be considered. Furthermore, any emission limits derived from modelling would likely be set at concentrations below the achievable LOD, meaning that compliance could not be reliably demonstrated in practice.

Notwithstanding these constraints, a conservative mass balance assessment indicates that the additional load of these substances contributed by the discharge would represent less than 1% of the

existing annual mass within the receiving watercourse. Given that this estimate is based on LOD concentrations, the actual contribution is likely to be substantially lower.

In conclusion, due to the inherent limitations associated with analysing this effluent matrix, it is not possible to undertake a definitive assessment of these substances using the standard H1 screening and modelling methodology. The inability to achieve LODs at or below EQS values precludes the derivation of meaningful or enforceable permit limits. Given that further analytical improvements are not feasible, and that conservative assessments indicate a negligible contribution to the receiving waterbody, no further regulatory action is considered necessary at this stage.

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.