

Summary of the assessment made by Wrexham County Borough Council to the recent submission to the Senedd Petitions Committee – 10th November 2025

Executive Summary

Wrexham County Borough Council (WCBC) is responding to Petition P-06-1510 concerning odour complaints from the Hafod landfill site. WCBC contends that the petitioner's submission contains fundamental errors in interpreting air quality standards and monitoring data, which significantly undermine the complaint's validity. However, the response also demonstrates the extensive proactive measures taken by Wrexham County Borough Council and partners to address community concerns.

Key Issues Identified in the Summary

1. Incorrect Application of Health Standards

The Petitioner's Claims: World Health Organization (WHO) guidelines for hydrogen sulphide (H₂S) are 0.5 ppb and 4.7 ppb, and these have been regularly exceeded.

The Evidence: The actual WHO guidelines are:

- 5 ppb (30-minute average) - threshold for sensory effects and annoyance
- 107 ppb (24-hour average) - protects public from odour nuisance and potential eye irritation

The figures cited by the petitioner do not correspond to any published WHO standards. This is significant because all subsequent calculations and claims of health risks in the petition are based on these incorrect baseline figures. The officer notes that even the petitioner's cited 4.7 ppb figure relates to odour detection (when roughly 50% of people can smell it), not a health threshold.

Implication: If standards are misidentified, any claimed breaches of those standards cannot be substantiated.

2. Recalibrated Monitoring Data Shows Lower Impacts

Following a comprehensive calibration exercise by the equipment manufacturer (AQMesh), the actual data from March-October 2025 shows:

- Average levels: 1-3 ppb across the monitoring period
- Peak recording: 25 ppb (30-minute average at Johnstown Community Centre)
- WHO health standard (107 ppb): Never breached, even at shortest measurement intervals
- Exceedances of odour perception level (4.7 ppb): 23% of readings, not the 39% claimed by the petitioner

Context: ppb (parts per billion) represents extremely small concentrations - comparable to a few seconds in 32 years.

Implication: While odours are periodically detectable, they remain well below levels associated with health effects according to international guidelines.

3. Legal Framework for Statutory Nuisance

It is important to provide distinction between detectable odour and legally actionable nuisance. Under Section 79 of the Environmental Protection Act 1990, a statutory nuisance requires:

- Serious and unreasonable interference with property use and enjoyment
- Assessment of frequency, duration, timing, and impact
- Direct witness testimony by qualified enforcement officers
- Evidence meeting the legal threshold of "balance of probability"

There are no automatic numerical thresholds that define statutory nuisance - it requires professional judgment in specific circumstances. Officers must personally experience the nuisance at a complainant's address to take enforcement action.

Policy Implication: The council cannot lawfully serve an abatement notice without meeting these evidential requirements. Acting without proper grounds would be ultra vires and subject to judicial review.

4. Extensive Monitoring and Engagement Measures

We wish to highlight the significant efforts undertaken by the council and partners in addressing community concerns:

Monitoring Infrastructure:

- 6 real-time air quality monitors operating 24/7 (operated by Enovert and WCBC)
- 13 hydrogen sulphide diffusion tubes across the locality (installed by Enovert)
- Weekday odour monitoring by council officers (since July 2025)
- Weekly odour monitoring by Natural Resources Wales officers
- Three council officers hold formal certification in odour assessment

Governance and Transparency:

- Established Hafod Liaison Stakeholder Group to oversee the implementation of the Council Motion relating to Hafod landfill
- Increased the frequency of the Hafod Liaison Group, which includes community representatives.

- Housing, Environment and Scrutiny Committee oversight
- Public availability of meeting minutes
- Multiple invitations extended to the petitioner to meet with officers (not taken up)

Policy Implication: The authority has implemented monitoring and engagement considerably beyond standard requirements for such sites.

5. Technical Monitoring Considerations

The petitioner questioned the reliability of the air quality monitors used, suggesting they're not "reference standard" equipment. The officer's response clarifies:

- The AQMesh pods represent current best practice for distributed monitoring
- They offer detection limits below 1 ppb - sufficient for this application
- They've been calibrated against reference standard equipment
- Reference standard monitors are prohibitively expensive for multiple outdoor locations and require specialist operation
- Calibration showed the Community Centre monitor had actually been *over-estimating* hydrogen sulphide levels, which has now been rectified.

Policy Implication: The monitoring approach is fit for purpose and follows established air quality assessment practices. As per normal experience, a sufficient time period (normally 6 to 12 months) is required to achieve data confidence.

6. The "Complaint Fatigue" Issue

The petitioner suggests residents have stopped complaining due to perceived inaction. We would suggest that:

- Additional proactive monitoring via Officer visits and monitoring equipment is providing a factual assessment without the need to rely upon complaints.
- The council must operate within legal constraints
- Taking action without evidence would constitute abuse of power
- Residents who are unhappy with our approach have been directed to complain to the Local Government Ombudsman.

Summary for Committee Consideration

We have presented a fundamental disagreement with both the technical data and the assessment of the legal framework by the petitioner:

The Petitioner's Position: Health standards are being breached, residents are suffering unacceptable impacts, and the authorities are failing to act.

The Authority's Position:

- The technical claims made by the petitioner are based on misidentified standards
- Actual monitoring data shows odours are on infrequent and limited occasions detectable but below health thresholds
- Legal action requires specific evidential tests not yet met
- The authority has implemented exceptional monitoring and engagement measures

The committee may wish to seek independent technical advice on the correct interpretation of WHO guidelines and the adequacy of the monitoring methodology employed.

Note: The full technical data set is available to the committee should detailed examination be required.