

Compliance Assessment Report CAR_NRW0051143

Permit being assessed: AB3096CP.

For: Lamby Way Open Windrow Composting Facility, **held by:** Welsh Water Organic Energy (Cardiff) Limited

At: Lamby Way, Rumney, Cardiff, CF3 4EQ.

Type of assessment: Site Inspection,

Reason: Routine.

On: 16/03/2026 between 13:00 and 14:00.

Parts of permit assessed: Various.

NRW Lead Officer: Greg Gardner, accompanied by Geraint Harris, Regina Simmons.

Report sent to: Site Manager, Site Manager, on 08/05/2026.

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)	
IR2A - Installations - Operations - Permitted activities	Assessed (A)	
IR2B - Installations - Operations - The site	Assessed (A)	
IR3C - Installations - Emissions and monitoring - Odour	Assessed (A)	
IR3I - Installations - Emissions and monitoring - Fire	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
0	0

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	Review and implement the recommendations identified within	05/06/2026

Criteria	Action needed	Complete by
	the CAR form following the CCRA review and send updates to your regulating officer for review.	

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

This report details the site visit made on the 16th March 2026 to the Welsh Water Organic Energy (Cardiff) Ltd site, permit reference number EPR-AB3096CP.

Natural Resources Wales (NRW) Senior Officer Greg GARDNER Lead Specialist Geraint HARRIS and South Central Industry Regulation Team Leader Regina SIMMONS attended the Welsh Water Organic Energy (Cardiff) Ltd, Lamby Way Open Windrow Composting Facility, Lamby Way, Rumney, Cardiff CF3 2EH for a planned routine site inspection at 13:00pm where they were met with site Management. The site was non-operational at the time of the inspection where the weather was dry, overcast and windy at the time of the inspection.

GENERAL OBSERVATIONS

The purpose of the visit was to conduct a site handover from Officer HARRIS to Officer GARDNER and to become familiar with the sites operations, process and surroundings. Discussions took place regarding current site operations and future intentions such as any planned maintenance. Site management walked NRW Officers through the process where it was noted that in the areas that NRW personnel ventured into, the environmental controls were effective, as no offensive odours, excessive noise, or airborne dust were detected during the inspection.

Windrow firebreaks appeared to be at safe distance apart to prevent any fire spreading in the event of a potential fire occurring as well as the height of the pre and post treated green waste windrows appeared to be within dimensions of the sites designated Fire Prevention and Mitigation Plan (FPMP) document. NRW personnel witnessed the onsite discharge point for surface water as well as venturing off site to witness the lagoon where stored firewater is held. Again, at this offsite location, NRW personnel did not witness any adverse odours emanating from the site.



Photo 1 - Green waste at reception area prior to being processed



Photo 2 - Windrows of pre / post treated green waste(s) on site



Photo 3 - Separation distance between each windrow on site**Photo 4** - Green waste to be treated to remove further contaminants I.E. Plastic(s)

CLIMATE CHANGE RISK ASSESSMENT (CCRA) REVIEW

Following review, I have set out below the areas that must be strengthened to meet the requirements of the Regulation 61(1) Notice and current regulatory expectations.

General Compliance Observations

The Reg.61 Notice requires a climate change assessment that is:

- Site-specific,
- Uses up-to-date climate projections,
- Assesses risks under 2°C warming by 2050 and 4°C warming by 2100,
- Considers internal, external and consequential impacts, and
- Includes a plan to regularly update the assessment.

Detailed Feedback and Recommendations

Several risks drop from Medium → Low:

- without explaining why the residual risk is acceptable under future climate scenarios.

1. Summer Daily Maximum Temperature

Feedstock risks:

- Increased changes in feedstock composition (e.g., reduced nitrogen due to less grass), which can slow decomposition.
- Potential overheating of windrows, impacting microbial activity.

Additional mitigation recommended

- Keep windrows to a maximum height of 3 metres to promote heat loss and reduce

self-heating risk.

Dust and Bioaerosols

- The CCRA identifies dust and bioaerosol emissions as a medium risk.
- Please confirm: Are bioaerosols monitored quarterly at WWOE Lamby Way?

Fire Risk:

The current CCRA does not include a dedicated assessment of fire risk, even though fire is a recognised high-impact hazard for composting operations under climate stress. Controls such as moisture monitoring, turning and temperature logs are referenced, but fire is not explicitly assessed.

Recommendation – Add a “Fire Risk Under Climate Change” Section

This section should consider:

- Ignition sources (equipment, self-heating, external sparks)
- Fire behaviour under climate extremes (heatwaves, drought, high winds)
- Mitigation and prevention measures (C/N balance, turning regimes, moisture control)
- Windrow and stockpile configuration (heights, spacing, firebreaks, stock rotation)
- Firefighting water availability and containment
- Emergency response planning

Adding this section is required to adequately reflect increased fire risk associated with hotter, drier and windier climate conditions.

2. Winter Daily Temperature

Longer Growing Seasons

Climate change is expected to extend growing seasons, increasing garden waste arisings. Given the limited footprint of the Lamby Way site, please include:

- Increased volumes of incoming green waste leading to capacity pressure.
- Mitigation: Ensure available processing capacity and maintain correct carbon:nitrogen ratios (especially adding high-grass inputs to oversize material).

3. Daily Extreme Rainfall & Average Winter Rainfall

The CCRA already identifies increased surface water flooding, drainage overwhelm risks and access disruption.

Odour Risk:

Excessive rainfall may result in:

- Process instability
- Waterlogged windrows
- Anaerobic conditions

- Increased odour emissions

Mitigation recommended

- Increased process monitoring frequency
- Additional sampling points during wet periods

Recommendation

Include excessive rainfall and its implications for odour control in the CCRA.

Storage and Land Bank Availability:

- Prolonged wet weather may prevent spreading of compost to land.

Mitigation recommended

- Develop contingency plans for safe storage both on-site and off-site, taking account of seasonal bottlenecks.

Floating Fuel Tanks:

Please confirm whether flat-bottom tanks or other tanks on site could float or become destabilised during flood events. If so, include mitigation (anchoring, ballasting, raising).

4. Missing Climate Projections, Time Horizons and Scenarios

The CCRA uses climate figures (e.g., +7°C summer temperatures, +20% extreme rainfall; +0.6 m sea-level rise) but does not cite the projection source, such as UKCP18, nor does it structure the assessment around:

- 2°C warming by 2050, or
- 4°C warming by 2100.

Recommendation

Add:

- The climate projection dataset used (e.g., UKCP18)
- Defined time horizons: short-term (2030s), medium-term (2050s), long-term (2100)
- Scenario-based risk analysis aligned with NRW's Reg.61 notice.

5. Scope of Exposed Elements and Receptors

Although the current CCRA focuses on onsite risks, it does not fully meet the Reg.61 requirement to identify and prioritise all exposed elements and receptors, including:

- Threats to environmental permit compliance
- Threats to employee safety and welfare
- Threats to sensitive receptors (neighbours, surface waters, protected sites)
- Supply chain impacts (upstream waste collection, downstream end-users)

- Utility interruptions (power, water, access)

Recommendation

Expand the risk assessment to cover each receptor type across all scenarios.

6. Key Performance Indicators (KPIs)

The CCRA identifies mitigation measures but does not establish KPIs to measure performance over time.

Recommendation

Introduce measurable KPIs, for example:

- Number of temperature exceedances per quarter
- Moisture deviations versus target ranges
- Incidents of dust/odour complaints
- Number of flood-related access disruptions
- Drainage system maintenance pass/fail rates
- Equipment downtime during extreme weather

KPIs should be built into the Environmental Management System (EMS) to support continuous improvement.

7. Review Frequency and Update Triggers

The CCRA does not specify:

- Review cycle
- Update triggers
- EMS integration

Recommendation

Add a formal review procedure, e.g.:

- Full review every 4 years,
- Interim review after:
 - significant extreme weather events
 - substantial operational changes
 - publication of updated climate projections
 - a fire, major odour incident, or drainage failure

ACTION: Review and implement the recommendations identified within the CAR form following the CCRA review and send updates to your regulating officer for review.

DEADLINE: 05/06/26

END

In this document 'Natural Resources Wales' means the Natural Resource Body for Wales established by Article 3 of the Natural Resources Body for Wales (Establishment) Order 2012

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.