

Compliance Assessment Report CAR_NRW0044272

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: Audit,

Reason: Incident Response (Incident number 2307101).

On: 17/11/2023 - 13/05/2024.

Parts of permit assessed: Operating Techniques .

NRW Lead Officer: Geraint Harris.

Report sent to: Adrian Thomas, Contracts Manager, on 13/05/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2C - Installations - Operations - Operating techniques	C3 Minor	Permit Condition 2.3.1.(a)
IR2C - Installations - Operations - Operating techniques	Action only (X)	

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
IR2C	Please provide an explanation as to why your management system failed to identify an approach to your permit limit and then a subsequent breach in this permit condition?	01/07/2024
IR2C	Submit an emissions management plan, which may be a revision of your operating techniques, an updated odour management plan or a combination of both, incorporating the BAT requirements described in this report to prevent or	01/07/2024

Criteria	Action needed	Complete by
	minimise the risk of pollution from the composting activities.	

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

Welsh Water Organic Energy
EPR-AB3096CP

Open Windrow Appropriate Measures Investigation

Following the substantiation of odour complaints on the 8th and 9th of September 2023 (CAR_NRW0042624), a Regulation 61 Notice was issued to WWOE asking for information relating to the monitoring and controlling of key waste and process parameters. The purpose of this request was to ascertain if appropriate measures including, but not limited to, the implementation of BAT were being applied to all aspects of the onsite processes. Permit holders have an obligation to apply all appropriate measures to prevent or, where this is not practical, to minimise emissions to the environment, in particular (but not solely) through applying best available techniques (BAT). The assessment of WWOE's process data is attached to this report and concludes that not all appropriate measures for the control of odours are being employed at the site.

In summary, when it comes to controlling temperature, aeration, porosity, density and ultimately odours, WWOE are failing to apply the recommended standards stipulated within the relevant guidance's and BREF's. Ultimately WWOE's windrows are too large, too dense and too hot and are not maintaining predominantly aerobic conditions especially during the summer months. NRW would expect the temperature, oxygen and density levels to be monitored more vigorously and the windrow sizes to be constructed to the dimensions set out within the Waste Treatment Bref. The current practice of using average temperatures and average oxygen levels for process control is not sufficiently accurate to ensure compliance with the requirements of the permit to prevent or minimise pollution emissions from the site. The readings taken throughout the compost piles should be scrutinised more rigorously and monitored against what is recommended in the guidance and acted upon more rapidly. The current control processes are not in line with best practice or BAT and some are in breach of the permit conditions.

Failure to employ the measures identified in this report, including management of high temperatures and windrow size, is known to result in increased emissions of ammonia and VOC's during the open windrow composting process. We have also noticed ammonia odours on site during composting and identified composting odours associated with VOC emissions off site. Ammonia and VOC emissions will react with other pollutants to create fine dust particles linked to increased death rates, respiratory problems, and cardiovascular diseases. Ammonia can also harm biodiversity and ecosystems. NRW are required to consider the environment as a recipient of pollutants and operators are required to do all that is practicable to minimise emissions and their impact.

The UK and Welsh governments require management of ammonia and VOC emissions (as well as other pollutants) by 2030 and beyond to comply with the emission reduction commitments implemented in UK legislation through the National Emission Ceilings Regulations (2018). Furthermore, under EPR NRW also has a duty to ensure that polluting emissions are minimised to help Secretary of State secure the reductions. On this basis NRW is of the opinion that the composting activities are contributing to local and regional pollution and in accordance with permit condition 2.3.1(b) we are notifying you of this and require you to **submit an emissions management plan, which may be a revision of your operating techniques, an updated odour management plan or a combination of both, incorporating the BAT requirements described in this report to prevent or minimise the risk of pollution from the composting activities. The updated documents shall be submitted to NRW for approval by the 1st of June 2024 and reflect the requirements of the Waste Treatment Bref as a minimum.**

Noncompliance

WWOE's environmental permit under the Schedule 1 activity states: "The biological treatment of waste for the purpose of recovery or a mix of recovery and disposal, shall be limited to 167 tonnes per day". This means that WWOE are only permitted to biologically treat up to 167 tonnes per day of green waste. WWOE'S permit has a maximum annual throughput of 38,000 tonnes per annum which equates to an average of 104.11 tonnes of waste a day if the site is operational 365 days a year or 106.44 tonnes if bank holidays are excluded. This 167 tonnes per day or is designed to account for fluctuations in waste levels due to seasonal variations as well as the effect of breakdowns etc. Table 1 within the attached report shows that for three periods in 2023 this limit has been exceeded. On the week of the 22nd to the 28th of May (Batches 290523A&B) 1505 tonnes (215tonnes per day) of waste was accepted onto site and put through the composting process. Similarly, between the 5th and 11th of June (Batches 120623A&B) and the 17th to the 23rd of July (Batches 240723A, B&C) 1250 tonnes (178.6tonnes per day) and 1320 tonnes (188.6 tonnes per day) respectively, were accepted onto site and composted. WWOE are aware of this condition since it is stated within the latest version of their OMP on page 7 which states "the maximum throughput is approximately 1,167 tonnes over 7 days (approximately 167 tonnes per day)". Since this limit of 167 tonnes is stated within WWOE's operating techniques, as well as the limits within the schedule 1 activity permit condition this is considered a breach of the permit condition and will incur **a category 3 noncompliance against permit condition 2.3.1 (a).**

Action 1: Where we find a noncompliance, we must investigate root cause. Please provide an explanation as to why your management system failed to identify an approach to your permit limit and then a subsequent breach in this permit condition? **1st of July 2024.**

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.