

Compliance Assessment Report CAR_NRW0052784

Permit being assessed: ZP3939GL.

For: Western Wood Energy Plant, **held by:** Western Bio-energy Ltd

At: Longland Lane , Margam, PORT TALBOT, West Glamorgan, SA13 2NR.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 26/08/2026.

Parts of permit assessed: Q1 & Q2 2026 Monitoring Submission.

NRW Lead Officer: Elliot Jones.

Report sent to: Plant Manager, Western Bio Energy Ltd, on 27/08/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.1.2
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.1.2
IR3B - Installations - Emissions and monitoring - Emissions of substances not controlled by emission limits	Assessed (A)	
IR4B - Installations - Information - Reporting	Assessed (A)	
IR4C - Installations - Information - Notification	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(2)	Investigate the root cause of the particulate emission breach,	Already

Criteria	Action needed	Complete by
	and implement appropriate control measures to reduce the likelihood of reoccurrence.	completed
IR3A(2)	Investigate the root cause of the Nox emission breach, and implement appropriate control measures to reduce the likelihood of reoccurrence.	Already completed

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

Western Bio Energy Limited

Western Bio Energy (WBE) operates Western Wood Energy Plant in Margam in accordance with EPR/ZP3939GL/V006

The WBE Plant is a co-incineration power plant for the generation of electrical power by the combustion of biomass fuel. The plant has capacity to burn approximately 160,000 tonnes of biomass per annum, providing 14MW of electrical power supplied to the national grid. The plant has capacity to consume both virgin wood material and waste wood biomass.

Purpose of Compliance Assessment

The following monitoring returns and report have been assessed within this Compliance Assessment Report (CAR):

- Biannual 1 2026 Periodic Monitoring campaign.
- Quarter 1 (Q1) January – March 2026 Continuous monitoring Returns, Emissions to Air.
- Q1 January – March 2026 Bottom Ash TOC, Metals, Dioxins/Furans.
- Q1 January – March 2026 Fly Ash, Metals, Dioxins/Furans.
- Quarter 2 (Q2) April – June 2026 Continuous monitoring Returns, Emissions to Air.
- Q2 April – June 2026 Bottom Ash TOC, Metals, Dioxins/Furans.
- Q2 April – June 2026 Fly Ash, Metals, Dioxins/Furans.

Biannual 1 2026 Periodic Monitoring Emissions to Air

Monitoring was undertaken by an MCERTS-accredited contractor between 5th and 8th May 2026. All parameters required under Schedule 3 Table S3.1 were monitored.

Review of the monitoring report confirmed that all emission concentrations were below the applicable emission limit values. No permit breaches or areas of concern were identified.

Q1 Compliance Assessment

The operator submitted Q1 2026 monitoring returns via email on 20th April 2026, this falls within the specified reporting window. Compliant with permit condition 4.2.3.

Q1 2026 Continuous Monitoring Returns

Continuously monitored parameters listed in the environmental permit, Schedule 3(b) S3.1 have been monitored and assessed.

A particulate hourly average emission limit exceedance occurred on 21 January 2026. The continuous emissions monitoring system (CEMS) recorded an average particulate result of 22.34mg/m³ against an emission limit value of 20mg/m³

Operator notified NRW of the particulate exceedance via a Schedule 5 notification on the 22nd January 2026.

Action: Investigate the root cause of the particulate emission breach, and implement appropriate control measures to reduce the likelihood of reoccurrence.

The emission limit exceedance occurred over a short duration, the operator promptly identified the spike in particulate was due to a failure of the compressed air system, causing the filter bypass damper to open. Following the brief spike the backup air compressor system engaged, stabilising the system and closing the bypass damper. Particulate emissions returned to compliance once the bypass damper was closed. The faulty air compressor was removed from service for inspection and maintenance.

Exceeding the particulate hourly average emission limit is a breach of permit condition 3.1.2.

In accordance with non-compliance scoring guidelines, a non-compliance score of C3 has been allocated against criteria IR3(2)-Emissions to Air.

Q1 2026 Bottom Ash (TOC, Metals, Dioxins/Furans) & Fly Ash (Metals, Dioxins/ Furans)

Review of the analytical results confirmed that all required parameters were monitored in accordance with Schedule 3 Table S3.5.

No exceedances of the applicable emission limits (TOC) were identified, and the results are

considered compliant with the permit requirements.

Q2 Compliance Assessment

The operator submitted Q2 2026 monitoring returns via email on 27th July 2026, this falls within the specified reporting window. Compliant with permit condition 4.2.3.

Q2 2026 Continuous Monitoring Returns

Continuously monitored parameters listed in the environmental permit, Schedule 3(b) S3.1 have been monitored and assessed.

An Oxides of Nitrogen (NO_x) daily average emission limit exceedance occurred on the 25th May 2026. The sites CEMS recorded an average result of 251.75mg/m³ against an emission limit value of 250mg/m³

The operator notified NRW of the NO_x exceedances via a Schedule 5 notification on the 26th May 2026.

Action: Investigate the root cause of the NO_x emission breach, and implement appropriate control measures to reduce the likelihood of reoccurrence.

The operator investigated the cause of the recorded NO_x exceedance and concluded that the elevated readings resulted from a fault within the CEMS. As an interim precaution, the plant was operated at a reduced boiler load, and the NO_x control set-point was adjusted to increase urea dosing whilst the fault was investigated.

The fault was subsequently identified as partially dislodged feedback cards within the CEMS. The cards were refitted and secured, restoring normal system functionality. Since completion of the remedial works, NO_x readings have remained stable and no further abnormal trends have been observed.

The exceedance was marginal, with a daily average concentration of 251.75 mg/m³ against an emission limit value of 250 mg/m³. The issue was promptly investigated by the operator and attributed to a fault with the CEMS, with no evidence of significant pollution or prolonged elevated emissions.

Despite this exceeding the NO_x daily average emission limit is a breach of permit condition 3.1.2.

In accordance with non-compliance scoring guidelines, a non-compliance score of C3 has been allocated against criteria IR3(2)- Emissions to Air.

Q2 2026 Bottom Ash (TOC, Metals, Dioxins/Furans) & Fly Ash (Metals, Dioxins/ Furans)

Review of the analytical results confirmed that all required parameters were monitored in

accordance with Schedule 3 Table S3.5.

No exceedances of the applicable limits (TOC) were identified, and the results are considered compliant with the permit requirements.

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.