

Compliance Assessment Report CAR_NRW0046672

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: Audit,

Reason: Routine.

On: 05/03/2025 between 10:30 and 13:30.

Parts of permit assessed: See CAR attached..

NRW Lead Officer: Elliot Jones.

Report sent to: Operations & Maintenance Manager, Western Bio-Energy Limited, on 24/03/2025.

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	Assessed (A)	
IR2C - Installations - Operations - Operating techniques	Assessed (A)	
IR2E - Installations - Operations - Improvement programme	Action only (X)	
IR3B - Installations - Emissions and monitoring - Emissions of substances not controlled by emission limits	C3 Minor	3.3.3

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
IR2E	Comply with Improvement Conditions (IC11, IC12 & IC13) by	30/06/2025

Criteria	Action needed	Complete by
	the newly agreed deadline.	
IR3B	Ensure IBCs are stored correctly with appropriate secondary containment and clear signage indicating correct storage location. Implement training procedures outlining storage requirements of hazardous materials.	30/04/2025

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

Western Bio Energy

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. Plant has capacity for burning 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 Report

- Assurance Audit 5th March 2025.

Attendees

- Natural Resources Wales Senior Officer, Industry Regulation
- Western Bio Energy Operation and Maintenance Manager
- Western Bio Energy Environmental Consultant
- Western Bio Energy Timber Logistics Manager

Introduction

A site inspection of Western Bio Energy, Margam was arranged for the 5th March 2025.

Purpose of the visit was an assurance audit of the site and to progress discussions regarding the site's Improvement Conditions (IC) as stated in the Environmental Permit. Officer provided the operators with an agenda prior to attending site, allowing operator time to gather appropriate documents and reports.

The site was non-operational during the visit, site is currently experiencing a shutdown period, undertaking critical maintenance.

Improvement Condition

Operator has a series of ICs requiring completion by the end of April 2025. Trial monitoring for HCL and HF undertaken between April and July 2024 (IC11). Report and conclusion of the findings are being interpreted, finding to be issued in coming months.

In addition, NOx, and CO trials (IC12) were also undertaken during the same monitoring campaign, analysis result are in the process of being interpreted and some additional work on ash analysis is also required prior to final submission of the report.

IC13 requires the operator to produce an "Other Than Normal Operating Condition" (OTNOC) management plan, following discussion the majority of the plan has been compiled with some minor technical details needing to be revised prior to submission to Natural Resources Wales.

Officer has granted the operator an extension for the submission of the IC reports until **June 30th, 2025**, if required. The site has experienced a sudden change in responsible personnel. Extension granted to allow new personnel opportunity to become accustomed to the role.

Incoming Fuel Sampling and Rejection

Whilst onsite, the site did not receive delivery of any biomass fuel, due to the operational shutdown and the volumes already stored on site. Despite this operator outlined and explained the process fuel sampling.

All Incoming fuel trailers are visually assessed and weighed on the sites calibrated weighbridge. Fuel is visually assessed by inspecting the top of the trailer. Toolbox talks with the weighbridge operators, outline typical issues with quality and volume of delivered fuel.

Discrepancies in loading weight can indicate contamination of the load with water sodden fuel, hidden bulk objects within the trailer, mixture of fuel types.

When the weighbridge operator suspect potential foul play, the trailer is opened/deposited on site, inspected, and then rejected/removed from site in the same trailer if deemed contaminated/miss described.

"*Western Bio Energy Limited Annual Environmental Report 2024*", reports that 42 fuel loads were rejected for being the incorrect specification during 2024.

Moisture analysis is performed on every incoming fuel load. Representative samples are retrieved from across the length of the trailer. Analysis is performed at the onsite laboratory and the moisture content of the fuel is calculated.

Operator also retrieves fuel samples for analysis in a UKAS accredited laboratory, multiple samples are retrieved each calendar month. These samples undergo thorough analysis, for contamination and total composition of the fuel.

Site Tour

During the site tour officer observed multiple incorrectly stored Intermediate Bulk

Containers (IBC). IBCs were found to be double stacked unevenly, with a potential pathway for spillages to exposed ground and offsite. Whilst some of the IBC were found to be empty, a number contained chemical, Urea.



Urea IBCs Stored on Site, Unused IBC Spill Pallet.

Operator has an area of lowered floor and raised kerb; operator outlined that it is the designated storage area for any contained liquids.

The area of raised kerbed area was found to be storing alternative items and at capacity, preventing storage of Urea IBCs in this area. An IBC spill pallet was also present but also not being used as secondary containment.

Permit condition 3.3.3 Emissions of substances not controlled by emission limits

“All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.”

Incorrect storage of the liquid containers (IBC) is contrary to Environmental Permit Condition 3.3.3. In accordance with non-compliance scoring guidelines, a score of **C3** has been allocated against sub criteria **IR3B - Emission and Monitoring - Emissions of substances not controlled by emission limits.**

Action: Ensure IBCs are stored correctly with appropriate secondary containment and with clear signage indicating correct storage location. Implement training procedures outlining storage requirements of hazardous materials.

Prior to leaving site, officer observed the Urea IBCs being pumped into the site's main Urea

storage vessel. Despite the IBCs being incorrectly stored there was no evidence of any polluting spills had occurred.

The sites main Urea storage vessels, has secondary containment via concrete bund. Bund is inspected twice daily as part of the site operative's maintenance checks. Bund incorporates a manually controlled pumping station to remove collected rainwater.

Biomass Fuel Storage

The extended shutdown of the site has led to significant volumes of Biomass fuel being stored on site. This included varying types of biomass fuel and solid whole logs ready to be chipped.

The varying chipped Biomass is segregated by large concrete block bays, both externally and within the fuel barn.

Concrete block bays provide separation between the stockpiles and function as a fire wall allowing for segregation should a fire occur on site.

Storage of the biomass fuel was compliant with the sites Fire Mitigation Plan (FMP), during the visit stockpile dimensions and heights were in line with that stated in the FMP. Fuel stockpile internal temperature is closely monitored, recording internal temperature by inserting a thermocouple probe.

Security

A site visit during February 2024, discovered deficiencies in the permitter security fence. An area to the West of the site, was found to be damaged and had been temporarily repaired with Heras fencing. Damage has now been permanently repaired.

Conclusion

Operator is progressing the improvement conditions stated in the Environmental Permit. Monitoring trials were performed during spring 2024. Operator remains in the process of interpreting the analysis results and reaching a conclusion. Due to recent upheaval of staffing, officer has granted the operator an extension of the deadline for improvement conditions submission till the end of June 2025. (previously April 2025)

Whilst the hazardous chemical within the IBC has now been relocated to the main Urea vessel. Officer is mindful that additional measures need to be put in place to prevent future storage of hazardous IBC in unsuitable locations. Operator outlined an area on site, as the designated secondary containment area. If this area is proven to be on a closed drainage system and the foundations/kerb integrity allows for the retention of any spilt liquid it must be used for storage of contained liquids. Alternative methods must be sourced, if the designated area is not capable of retaining the liquid and poses a potential risk to the environment.

Implementation of training procedures and records of correct storage of hazardous material to be created. Clear signage should be erected on site, outlining suitable storage locations for IBCs.

Should any spills occur on site, operator is required to notify NRW via a schedule 5 notification and must update the site condition report and accident logs.

The extended maintenance shutdown on site has led to significant volumes of wood chip fuel being stored on site. During the visit Officer was satisfied with the management and segregation of fuel types. Fuel stockpiles were seen to be compliant with that stated in the sites FMP. Continued compliance with FMP will mitigate the severity should a fire incident occur on site.

Officer has issued an action on the operator, please see above and comply within the appropriate timeframe.

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.