

Compliance Assessment Report CAR_NRW0049030

Permit being assessed: AB3791FG.

For: The Maesydd, **held by:** Maesydd Biogas Ltd

At: Pool Quay, Pool Quay, Welshpool, Powys, SY21 9LA.

Type of assessment: Other,

Reason: Routine.

On: 26/08/2025 between 11:00 and 12:30.

Parts of permit assessed: All.

NRW Lead Officer: Malcolm Dines, accompanied by Holly Dyke.

Report sent to: Haydn Langford, Director, on 02/01/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
W1A - Waste - Management - General management	C3 Minor	1.1.1
W3E - Waste - Emissions and monitoring - Monitoring	Action only (X)	
W4B - Waste - Information - Reporting	C3 Minor	4.2.2
W4A - Waste - Information - Records	Action only (X)	
W4A - Waste - Information - Records	Action only (X)	

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
W1A	Review and update your management system to ensure that it reflects current activities and operations at your site, and specifically to ensure that the following are addressed: 1) Requirement to undertake Stack Emission Monitoring	31/10/2025

Criteria	Action needed	Complete by
	2) Waste Returns 3) Storage and loading of cattle slurry and chicken manure 4) Storage of liquid and solid digestate 5) Site inspection and maintenance routines including keeping records 6) Process monitoring system, including recording and retaining data to show long-term trends of your Digestion process. 7) Records of Auxiliary Flare operation and maintenance and to submit a copy of the updated management system to Natural Resources Wales	
W3E	Submit Stack Emission Monitoring Report as soon as it is made available to you	Already completed
W4B	Submit waste returns for Oct-Dec 2024; Jan-Mar 2025, Apr-Jun 2025 and Jul-Sep 2025 and ensure that future waste returns include the amount of slurry that you have used	Already completed
W4A	ensure that you are recording the operating hours of the auxiliary flare so that you can demonstrate changes to the total amount of time that the flare has been operating	28/08/2025
W4A	To demonstrate compliance with permit condition 1.1.1 and 2.1.2. please ensure that system monitoring records are made and retained for the following: <ol style="list-style-type: none"> 1) Amount of Methane in the Biogas 2) Alkalinity 3) Amount of Volatile Fatty Acids (VFA) 4) Alkalinity:VFA ratio 5) pH 6) Records of Daily/Weekly/Monthly routine checks and maintenance 7) Records of Pressure Relief (Whessoe) Valve checks and actuations 8) Records of Auxiliary Flare operating hours 	28/08/2025

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.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

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 compliance meeting undertaken by Malcolm Dines (Waste Regulation Office) and Holly Dyke (Enforcement Officer) who met with Haydn Langford (Director) following the failure to comply with the actions set-out in the last Compliance Report (ref: CAR_NRW0046425) sent to you by email on 28 March 2025 and also other elements of your permit relating to data including waste returns, stack emissions monitoring and process stability.

** This Compliance Report was edited on 2 January 2026 because I realised that you had not breached the permit condition for stack emission monitoring as the requirement that this is carried out annually and this means any time during the current calendar year. Therefore I have moved the requirement to submit the stack emission monitoring report to "Other Matters". As you have now submitted this report there is no deadline for compliance **

Permit Breaches

W4B - Reporting - Cat 3; Permit Condition 4.2.2

You have been given this compliance score of 3 under the above permit condition because you have not submitted waste returns for the following periods:

- Oct-Dec 2024
- Jan-Mar 2025
- Apr-Jul 2025

If you have the relevant records, please ensure that your waste returns include the amount of slurry you have used in the Anaerobic Digester during these periods and is something that should have been done since the issue of your permit however, we have also failed to identify this issue during previous compliance work. Please ensure that you start reporting the amount of cattle slurry used in the digester as of the waste return for the quarter for October to December 2025.

Action: You submitted all outstanding waste returns by the original deadline of 31 October 2025 and so no further action is required.

W1A - General Management - Cat 3; Permit Condition 1.1.1

You have been given this Compliance Action under the above permit condition because you failed to comply with the actions set out in Compliance Report (ref: CAR_NRW0046425).

Permit condition 1.1.1 states that your management system should, "*minimise risks of pollution, including those arising from [...] non-conformances...*"

In addition the root cause of the permit breaches and other matters recorded on this form are the result of having a insufficient management system - either not having enough information in the management system, or not following the procedures you have set out correctly, including the failure to realise that some of the activities were being undertaken outside the permit boundary.

Action: Review and update your management system to ensure that it reflects current activities and operations at your site, and specifically to ensure that the following are addressed:

- Requirement to undertake Stack Emission Monitoring
- Waste Returns
- Storage and loading of cattle slurry and chicken manure
- Storage of liquid and solid digestate
- Site inspection and maintenance routines including keeping records
- Process monitoring system, including recording and retaining data to show long-term trends of your AD process.
Records of Auxiliary Flare operation and maintenance

and to submit a copy of the updated management system to Natural Resources Wales **by 31 October 2025**.

Other Matters - Illegal Waste Activities

In Compliance Report CAR_NRW0046425 you were advised that you were carrying out two illegal waste activities due to operating outside the permit boundary and spreading waste to land without a permit.

Operating Outside the Permit Boundary

You are storing liquid digestate in a tin tank which is outside the permit boundary. Liquid digestate is waste until it is spread on land as a fertiliser and therefore must be stored in accordance with a permit.

You are also storing Solid dried digestate and chicken manure on the concrete apron to the south the digester. This is not within the permit boundary, the permit boundary for the site is the bund wall to the south of the site and the concrete apron to the east of the digester.

During this compliance visit we discussed how this matter would be resolved and that a permit variation to change the permit boundary is the easiest option. If you do decide to vary your permit to do this, you should consider future operational requirements at your site and ensure that the new permit boundary takes these into account as this will minimise the likelihood of needing to change permit boundary again in the future.

information on varying a permit can be found here: [Natural Resources Wales / Apply to change to, or vary, a standard rules waste permit](#)

The fee to vary the permit boundary is classed as a Minor Technical Change and costs £2,975 [Natural Resources Wales / Charges for waste permits](#)

An alternative option is to apply for a Standard Rules Permit for the storage of wastes to be spread to land. The application fee for this is £1,950, but there may be additional charges depending upon location and what documents are needed to be assessed.

You will also have to demonstrate that the storage tank meets the requirement of the construction industry guidance document CIRIA C759b. Section 14.5 of this document

highlights that the regulator usually expects that AD facilities will have secondary containment in the form of a bund. So I cannot guarantee that NRW's Permitting Team will approve an application for this permit without demonstrating that you have secondary containment.

Spreading waste to land without a permit

In Compliance Report CAR_NRW0046425 you were also advised that, because you are draining the chicken manure and slurry from the Dirty Calf Yard and the Lightly Trafficked Yard to the tin tank that you use to store the liquid digestate and this material is then spread to land as a fertilizer. However, the material that you are spreading to land is not digestate, it is digestate mixed with cattle and chicken slurry, so the nutrient properties of that material will be significantly different to that of digestate and so is not approved for use under our Regulatory Position. By continuing to spread this material except in accordance with an environmental permit, it is an illegal deposit of waste to land.

You were told that to continue to take advantage of the Regulatory Position you must stop storing run-off from chicken manure storage and cattle yards OR, you must only spread the liquid waste mixture in accordance with an environmental permit.

During this meeting you explained that you were no longer adding the slurry to the liquid digestate store, but are collecting the slurries and pumping them directly into the digester. This means that you are compliant with legislation and can continue to spread the digestate to land under Natural Resources Wales' Regulatory Position for on-farm digestate.

You must ensure that you update your management system to reflect this change in operational procedure.

Action: Update your Environmental Management System - see action for breach of permit condition 1.1.1

Other Matters - Monitoring & Reporting

Stack Emission Monitoring

Permit condition 3.5.1 requires you to undertake stack emission monitoring on the gas engine at your site every 12 months, during this meeting you explained that the stack emission monitoring has not yet been carried out but has been booked.

Action: you submitted the report on 3 November 2025 before the original deadline of 31 December 2025 and so there is no further action required.

W4A - Records - Process Records

Permit condition 1.1.2 requires you to maintain records demonstrating compliance with condition 1.1.1 which, in turn, requires you to operate in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations.

Permit condition 2.1.2 requires that all process plant and equipment shall be operated, and fully documented and recorded, in accordance with the manufacturers recommendations.

To comply with the above two permit conditions your management system should include a monitoring system, the purpose of which is to:

- ensure a stable digester operation;
- minimise operational difficulties, such as foaming, which may lead to odour emissions;
- provide sufficient early warning of system failures which may lead to a loss of containment and explosions

You explained that the data system for the AD plant keeps a rolling 19 day record of data. Therefore you should be looking to record the data on the system every cycle of data collection and I would expect that this would be more frequent than 19 days to provide contingency for unforeseen events that mean you are not able to collect data on the specified day. I would expect to see records for every two weeks at a minimum. You will also need to ensure that the time period is specified in your management system along with what data is to be recorded and how. It is important that you are able to demonstrate the long-term trend of the stability of your digester.

It may be that a screenshot of the data is sufficient to provide a record of the information required. However, if Natural Resources Wales request provision of that data it will need to be provided as a spreadsheet.

The parameters set out below are those which should be recorded to be able to demonstrate a stable digester:

Key metrics:

- **Organic Loading Rate (OLR):** *How the feed is mixed into the digester, this is the most critical part of digester design. If the feed does not mix with the micro-organisms in the digester, the AD process will be incomplete and the digestate unstable, higher in VFAs and more odorous*
- **Hydraulic Retention Time (HRT)**
- **Alkalinity:VFA ratio:** This is an indicator of plant stability
- **Records of Pressure Relief (Whessoe) Valve checks and actuations:** *These are an emergency measure. If they get blocked there is a serious risk of over pressurising the digester.*

Other required metrics:

- **Amount of Methane in the Biogas:** *A reduction in the percentage of methane in the biogas is an indication that the bacteria are stressed*
- **pH:** *You should know the pH of your digester and it should be measured with a calibrated instrument, that has a calibration record*
- **Amount of Volatile Fatty Acids (VFA):** *These should be consumed as fast as they are produced*
- **Alkalinity:** *This refers to the ability of the digester to withstand fluctuations in VFAs*
- **Level of Digestate Ammonia:**
- Records of Daily/Weekly/Monthly routine checks and maintenance

If your system does not show/record any of the following required parameters, you need to

contact FreEnergy and ask if your system allows for these parameters to be recorded. If you are not able to record any of these parameters, you must explain in writing why not and include evidence provided by FreEnergy

Action: To demonstrate compliance with permit condition 1.1.1 and 2.1.2. please ensure that you are recording the data as set out above and that your management system is updated to reflect this requirement **with immediate effect**

W4A - Records - Auxiliary Flare Operation: Permit Condition 3.5.1

Permit condition 3.5.1 requires you to keep a record of the operating hours of the auxiliary flare. During the meeting you showed me the records that your system keeps regarding the operation of the auxiliary flare: this is the total amount of time the flare has operated since the plant started operating. In order to demonstrate that the auxiliary flare is working correctly you need to be able to demonstrate changes to the total amount of time that the flare has been operating.

Action: ensure that you are recording the operating hours of the auxiliary flare so that you can demonstrate changes to the total amount of time that the flare has been operating **with immediate effect.**

In this document 'Natural Resources Wales' means the Natural Resources 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 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 Waste compliance criteria (used in section 1 and 2):

1. Management

- W1A – General management
- W1B – Energy Efficiency (MCP/SG facilities only)
- W1C – Avoidance, recovery and disposal of wastes produced by the activities

2. Operations

- W2A – Permitted activities
- W2B – Waste recovery plan
- W2C – Operating techniques
- W2D – The site
- W2E – Waste acceptance
- W2F – Technical requirements
- W2G – Improvement programme
- W2H – Pre-operational conditions

3. Emission and Monitoring

- W3A – Emissions to water, air or land
- W3B – Emissions of substances not controlled by emission limits
- W3C – Odour
- W3D – Noise and vibration
- W3E – Monitoring
- W3F – Pests
- W3G – Fire

4. Information

- W4A – Records
- W4B – Reporting
- W4C – 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.