

## Compliance Assessment Report CAR\_NRW0041063

**Permit being assessed:** AB3790ZB.

For: Barry Energy Production Facility, held by Biomass UK No. 2 Ltd  
At: Woodham Rd, Barry, CF63 4JE.

**Type of assessment carried out:** Site Inspection, Reason: Routine.

On 25/10/2022 between 10:00 and 12:00.

Parts of permit assessed: Monitoring Returns

**NRW Lead Officer:** Geraint Harris, accompanied by Antony Leakey.

**Report sent to:** Chris Lewis, Site Manager on 03/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B4 - Infrastructure - Containment of stored materials	Action only (X)	
B5 - Infrastructure - Plant and equipment	Action only (X)	

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

Total number of 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
B4	Biomass UK need to look at burst bag/dust breakthrough detection on the other dust control units that don't have CEMs for example the silo dust vents.	02/04/2023
B5	Biomass UK No. 2 Ltd are required to undertake the correct flammable solids testing as described above. Please ensure this test is conducted prior to the removal and disposal of wood dust waste from the site.	02/04/2023

Action 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

### Biomass UK

#### EPR/AB3790ZB

Both Antony Leakey and Geraint Harris visited Biomass UK in Barry on the 25<sup>th</sup> of October 2022. The purpose of this visit was to ensure the plant is being suitably maintained ready for a future restart. A previous site inspection 06/08/2021, coupled with a review of plant preservation procedures and records, did not identify any vulnerabilities. The subsequent CAR Form (CAR\_NRW0038745) concluded that the plant and emissions monitoring system were in a suitable condition for resumption of operations and no improvement actions were identified. During the recent visit, the ongoing preservation of the site was discussed. A weekly running preservation schedule was provided by the operators which demonstrated that the plant was being actively maintained. During the site walk around the site was found to be in good condition. Both Tony and I visited the main waste wood reception hall which was found to be empty of any wood. Due to the extensive shutdown period, this hall was being used as a storage area for spare parts including replacement bed material. The site has recently undertaken a lighting survey and had also begun installing a larger silencer on the induced draught (ID) fan. The ongoing installation of the silencer was observed during the site visit. Work has also commenced on analysing the ash silo's filter bags, with the purpose of ascertaining the lifespan of such bags. The CEMS calibration gases were inspected and found to be just in date. However, Biomass UK have discontinued routine QAL3 tests to save "wasting" expensive cal gases and will replace with fresh gas when they think they are closer to restart. Biomass UK will provide NRW with the Cal gas certificates when they are next changed.

Back in September 2021, an incident occurred where wood dust was released onto the adjacent property from the filter bag house unit. Information on this incident can be found in CAR Form CAR\_NRW0039413. As a result of this incident, Biomass UK Ltd have installed a probe on the clean side of the baghouse. The probe uses the principle of the displacement of the electric charge in the electrode, induced by the electrical charges carried by dust immersed in a gaseous fluid. The amount of electric charge dynamically induced on the electrode is proportional to the amount of dust present in the gaseous fluid. An increase in the concentration of dust causes a proportional increase of the signal that reaches the microprocessor. This then alarms the turbo control, which sends the signal back to the DCS. NRW welcomes this improvement which should allow the operators to have a much more advanced warning that dust is escaping the filter house unit.

**Action 1: Biomass UK need to look at burst bag/dust breakthrough detection on the other dust control units that don't have CEMs for example the silo dust vents.**

A QAL 3 chart report was generated on Tue, 25 Oct 2022 for the main CEM and reviewed against requirements in the EN 14181 standard and accepted. The report covers from April to July. The unit has been in maintenance mode since then whilst the site awaits confirmation to start-up. Biomass UK will send NRW the QAL3 reports prior to start up.

Following the Dust release incident on the 2<sup>nd</sup> of September 2021, Biomass UK No. 2 Ltd was asked to provide evidence that the wood dust was non-hazardous. In the absence of any previous analysis, several samples of the dust were taken by the operator and sent for a WM3 assessment. Biomass UK hired the services of SOCOTEC UK Limited (SOCOTEC) to undertake a waste classification assessment. The waste classification was undertaken with consideration for each stage of the waste treatment and processing at the site. The samples

were assessed as individual samples at each separate location of the process, namely the loading bay, the conveyor belt and the skip. Hazardous property HP3 for flammability was triggered due to the presence of trace Total Petroleum Hydrocarbons in concentrations above the threshold in all the samples. The report discounted this hazardous property due to the absence of any identifiable free phase liquids or hydrocarbons. However, there was some ambiguity as to whether the dust displays flammable solid properties.

Using the decision tree C3.1 (page 101, C11), in WM3, this material is potentially HP3 hazardous by the third indent, since the analysis shows that the material contains substances with the hazard codes in table C3.1. These hazard codes include H225 and H226. Page 105 of WM3 states “A waste possesses the hazardous property HP 3 where testing indicates that the waste displays one or more of the hazard statements listed in Table C3.1. Wastes containing substances listed in Table C3.1 should be tested for flammable properties in accordance with the Guidance on the Application of the CLP Criteria”.

**Section 2.7. of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging (CLP) of substances and mixtures:**

*“2.7. Flammable solids*

*2.7.1. Definition*

*2.7.1.1. A flammable solid means a solid which is readily combustible, or may cause or contribute to fire through friction. Readily combustible solids are powdered, granular, or pasty substances or mixtures which are dangerous if they can be easily ignited by brief contact with an ignition source, such as a burning match, and if the flame spreads rapidly.*

*2.7.2. Classification criteria*

*2.7.2.1. Powdered, granular or pasty substances or mixtures (except powders of metals or metal alloys — see 2.7.2.2) shall be classified as readily combustible solids when the time of burning of one or more of the test runs, performed in accordance with the test method described in Part III, sub-section 33.2.1, of the ►M4 UN RTDG ◀, Manual of Tests and Criteria, is less than 45 seconds or the rate of burning is more than 2,2 mm/s.2*

**Manual of Tests and Criteria:**

Part III, sub-section 33.2.1, of the Manual of Tests and Criteria, pages 365 to 369. Section 33.2 provides the relevant information relating to flammable solids with 33.2.4 providing details on the N.1 test method for flammable solids. Biomass UK’s Socotec report does not contain the tests required by WM3 and these need to be undertaken to finalise the classification process.

A Dust Cloud Flammability & Ignition Sensitivity Testing report was provided by Biomass UK No. 2 Ltd on the 18<sup>th</sup> of November 2022. The report submitted summarises tests conducted to determine whether the dust presents an explosion hazard when dispersed in air; what the minimum electrical spark is required to ignite a dust cloud; and the minimum temperature of a hot surface that would result in ignition of a dust cloud, but it doesn’t cover the test method required to undertake a WM3 assessment. Therefore, as it stands, the question as to whether the wood dust is HP3 hazardous by the third indent has not been answered. **Therefore, Biomass UK No. 2 Ltd are required to undertake the correct flammable solids testing as described above. Please ensure this test is conducted prior to the removal and disposal of wood dust waste from the site.**

**Q2, Q3 & Q4 Air 1 Reports:**

NRW received the quarterly report for Q2 on the 18<sup>th</sup> of July, Q3 on 14<sup>th</sup> October of 2022 and Q4 on the 12<sup>th</sup> of January 2023. Biomass UK No. 2 Ltd have not operated during this period therefore there are no monitoring results to review. As a consequence, Biomass UK haven’t had enough consecutive days on which to perform

QAL2 and AST testing therefore were unable to complete the Air\_2 form.

**Q2, Q3 & Q4 Waste Returns:**

Q2, Q3 and Q4 waste returns have been received with zero entries. All entries were compliant.

**Annual Returns**

NRW received Biomass UK No.2 Ltd's Annual Performance Report for 2022 on the 31<sup>st</sup> of January 2023. The facility has been non-operational during the whole of 2022. As a result, the site did not process any wastes during 2022 and all fuel storage and reception areas have remained empty. The site has been subject to a number of plant engineering reliability modifications with the intention of resolving a number of reliability issues. According to the report these improvements should yield some gains in efficiency, however these will only be quantified once the plant is fully operational. Since the plant has been non-operational the report contains nil values for all sections. This report has been accepted with no further actions required.

**END.**

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.

### **What are suspended scores?**

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 and Waste action criteria (used in section 1 and 2):**

#### **A: Permitted activities**

- A1 Specified by permit

#### **B: Infrastructure**

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

#### **C: General management**

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

#### **D: Incident management**

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

#### **E: Emissions**

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

#### **F: Amenity**

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

#### **G: Monitoring and records, maintenance and reporting**

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

#### **H: Resources efficiency**

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

### **Enforcement response**

Any permit condition non-compliance 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 20 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 – 18:00), or email [enquiries@naturalresourceswales.gov.uk](mailto: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](mailto: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.