

## Compliance Assessment Report CAR\_NRW0050851

**Permit being assessed:** BS6149IQ.

**For:** Pencoed Rockwool EPR/BS6149IQ, **held by:** Rockwool Ltd

**At:** Rockwool Ltd , Bridgend , Mid Glamorgan , CF35 6NY.

**Type of assessment:** Report/Data Review,

**Reason:** Routine.

**On:** 31/12/2025.

**Parts of permit assessed:** IR4B.

**NRW Lead Officer:** Brigid Armstead.

**Report sent to:** Joanne Barry, Company Secretary, on 27/02/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR4B - Installations - Information - Reporting	C3 Minor	4.2.3
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.5.1
IR3E - Installations - Emissions and monitoring - Monitoring	Action only (X)	
IR4B - Installations - Information - Reporting	C4 No impact	4.2.2
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C2 Significant	3.2.1
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	4.3.1(b)
IR1D - Installations - Management - Efficient use of raw materials	Action only (X)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	Action only (X)	

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

Total non-compliances recorded	Total non-compliance score
5	43.1

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
IR4B	Provide a pH, suspended solids, formaldehyde, oil and grease and COD results for W1 and/or a root cause for the lack of surface water monitoring data as required under permit condition 4.2.3.	31/03/2026
IR3A(2)	Provide evidence of corrective actions, preventing recurrence of dust probe interference at emission point A1.	31/03/2026
IR3E	Provide a root cause and plan of action to ensure that periodic testing of line 1 emissions points is complete in 2026.	30/04/2026
IR4B	Provide a root cause and plan of action to ensure that annual reporting is submitted as specified by the permit.	30/04/2026
IR3A(2)	Provide a root cause investigation and plan of action to ensure that ammonia emissions do not exceed the permit limit at A22.	30/04/2026
IR3A(2)	Provide a root cause investigation and plan of action to ensure that schedule 6 notifications are submitted as required by the permit.	30/04/2026
IR1D	Provide a root cause for the increase in specific water usage and a plan to ensure that water is used efficiently in the activities	30/06/2026
IR3A(2)	Action: Provide a root cause for the increase in ammonia emissions to air in 2025.	30/06/2026

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

### **Quarter 4 emissions monitoring reports**

#### **IR3A(1) Emissions to surface water**

Emissions to water were reported for monitoring point W1. This monitoring point was sampled when in flow on 15<sup>th</sup> December 2025. Reports were submitted for ammoniacal nitrogen and phenol. An action was set in CAR\_NRW0049847 with a due date of 31 March 2026. This will be assessed in a CAR following the due date.

Results for the parameters; pH, suspended solids, formaldehyde, oil and grease and COD were not reported for 2025. The lack of reporting for these parameters has been assigned

**a category 3 minor non compliance with permit condition 4.2.3.**

Permit condition 4.2.3 requires that within 28 days of the end of the reporting period the operator shall submit reports of the monitoring of the parameters and emission points specified in table S4.1.

**Action:** Provide a pH, suspended solids, formaldehyde, oil and grease and COD results for W1 and/or a root cause for the lack of surface water monitoring data as required under permit condition 4.2.3. **Due 31 March 2026**

**IR3A (2) Emissions to Air****Dust breach at A1**

A line 1 dust emission result of 10.6mg/Nm<sup>3</sup> was reported for emission point A1 on the 17<sup>th</sup> December 2025.

A Dust CEM faulty transmitter reading on 17/12/25 is not an ELV exceedance, but unreliable emissions data reporting has been assigned **a category 3 non compliance with permit condition 3.5.1**. Improvements to the monitoring provisions and maintenance regime will be assessed at the next Operator Monitoring Assessment (OMA).

The breach was found to be due to a faulty transmitter which has now been replaced. A root cause investigation determined that the transmitters location contributed to the fault. Rockwool have therefore determined a corrective action of relocating and housing the dust probe to better protect the equipment from extreme winter weather, preventing recurrence.

**Action:** Provide evidence of corrective actions, preventing recurrence of dust probe interference at emission point A1.

**Periodic monitoring reporting**

Biannual reporting forms Air 2A, Air 2B were received on 20<sup>th</sup> January 2026. Forms Air 2A, Air 2B are due within 28 days of the end of the reporting period, therefore **a category 4 non compliance has been assigned against permit condition 4.2.3 (consolidated)**

Annual reporting form Water Usage was received on 20<sup>th</sup> January 2026 and is due by the 31<sup>st</sup> January each year, therefore **a category 4 non compliance has been assigned against permit condition 4.2.2.**

**Action:** provide a root cause and plan of action to ensure that periodic reporting is submitted as specified by the permit. **Due 30 April 2026**

Periodic monitoring results were not received for A1 and A3. It is understood that line 1 only ran for 51 days in 2025. However the permit requires 6 monthly and annual periodic testing of A1 and A3. This should therefore be explained in the annual report and a plan of action made to ensure that all relevant periodic testing takes place in 2026. **A category 4 non compliance has been assigned against permit condition 4.2.2. (consolidated)**

**Action:** Provide a root cause and plan of action to ensure that periodic testing of line 1 emissions points is complete in 2026. **Due 30 April 2026**

### **Ammonia breach at A22**

The second biannual report of periodic ammonia emissions (Form Air2B) includes a result of 69.63mg/Nm<sup>3</sup> against an emission limit of 50mg/Nm<sup>3</sup> at emission point A22. **A category 2 (Significant) non compliance with permit condition 3.1.2.** This significant non compliance has been assigned as it has been established that there is already significant impact of authorised emissions on Brynna a Wern Tarw SSSI.

As per improvement condition 14V, afterburner temperature and afterburner pressure were established as surrogate parameters for continuous monitoring to ensure that the waste gas treatment is working effectively prior to release at A22.

**Action:** Provide a root cause investigation and plan of action to ensure that ammonia emissions do not exceed the permit limit at A22. **Due 30 April 2026**

### **Schedule 6 notification**

This non compliance with permit condition 3.1.2 was not reported directly to NRW via a schedule 6 notification. This is a **breach of permit condition 4.3.1(b) and has been assigned a category 3 minor non compliance.**

**Action:** Provide a root cause investigation and plan of action to ensure that schedule 6 notifications are submitted as required by the permit. **Due 30 April 2026**

### **Waste**

No waste went to landfill in 2025. Training refreshers and toolbox talks on waste were successfully rolled out across site during the summer 2025 as a reminder of good waste practices.

### **Improvement condition IP22V**

Rockwool are required to submit an annual report on progress with development and implementation of ammonia emissions reductions to air and the predicted or monitored improvements in process contributions at the Brynna a Wern Tarw SSSI.

A report was submitted for this improvement condition which describes progress and plans for changes to the binder used and the controlled introduction of alternative binder components to reduce ammonia and ammonium sulphate usage.

In 2026 Rockwool will install and commission an in-line binder mixing system on line 3 to enable control and optimisation of binder formulations and support a controlled transition to alternative binders.

Rockwool provided an ammonia mass balance estimate flow diagram with inputs and outputs for the process which includes an estimation of mass balance based emissions

using 2025 data.

Rockwool have provided a document with explanation of calculation methods used in their mass balance calculations “Rockwool Ammonia Mass Balance Estimate” as well as an updated mass balance ammonia emissions estimate for 2024 and an estimate for 2025.

The 2025 estimate uses an average of two calculations but does not provide information on the two calculations as follows:

- 3A. Calculation of ammonia to atmosphere via stack from measured values
- 3B. Calculation of ammonia to atmosphere via stack from measure values with a correction value applied due to a low LOI product being run on Line 3 at time of measurements

Rockwool found 3A undershot and 3B overshoot on ammonia output, and believe the actual case is somewhere between the two, but will aim to improve the model for future Mass Balances.

The IP22V submission for 2025 includes a plan of action for reducing ammonia emissions in 2026. However, Rockwool have reported an increase in total ammonia emissions in 2025 (112) compared to 2024(106).

**Action:** Provide a root cause for the increase in ammonia emissions to air in 2025. **Due 30 June 2026**

**Annual performance reporting:**

Rockwool submitted forms Energy1, and Performance1 and Water Usage 1.

Rockwool have shown increased efficiency in use of electricity and coke but a decrease in efficiency in use of natural gas. This increase in natural gas use was found to be caused by operational issues in the melting process which led to reduced efficiency, increasing natural gas demand while electricity and coke consumption declined.

Environment and energy induction refresher e-learning was rolled out and was completed by 320 employees. This followed environment days to raise awareness of the duty of the environment team and all workers on site.

Site total CO2 emissions decreased in 2025 compared to 2024 due to less production but also due to energy efficiency drives which will continue through 2026.

Rockwool reported that water used is supplemented where possible by rainfall, there is a dedicated process water storage room on site to increase reuse within the process. In 2025 the public water consumption decreased slightly compared to 2024, and the water efficiency improved, due to the commissioning of the ORC heat recovery and use of rain water for dust suppression.

	2023	2024	2025
Internal recycle of Rockwool and Rockwool products	1,594	1436	623

Recycle of Rockwool and Rockwool products from external sources	1,873	1874	1554
Mineral wool produced	129,310	131756	127,287
Electricity MWh/tonne	0.72	0.74	0.68
Natural gas MWh/ tonne	0.48	0.47	0.55
Coke MWh/tonne	1.15	1.28	1.12
Potable water /tonne	0.62	0.62	0.69
Total water/tonne	0.73	0.78	0.90

Potable and total water specific usage has increased in 2025 compared to 2023 and 2024.

Permit condition 1.3.1 requires that the Rockwool takes appropriate measures to ensure that raw materials and water are used efficiently in the activities.

**Action:** Provide a root cause for the increase in specific water usage and a plan to ensure that water is used efficiently in the activities. **Due 30 June 2026**

### **Site Visit**

NRW officers BA and AL visited Rockwool Pencoed on 21/01/2026. This site visit included a tour of the raw materials yard and the process water sump and storage facilities.

Rockwool have taken the following actions to address these incidents.

- Relocated the materials processing to a location on site with sealed ground and drainage provisions.
- Completed a radar survey of the area
- Scheduled soil testing
- Ongoing monitoring of run off.
- Plans in place to restore and protect groundwater wells

In order to ensure this incident has been suitably addressed, NRW await further information regarding following actions set out in CAR\_NRW0049847, due 31<sup>st</sup> March 2026.

### **Actions from previous CARs**

**CAR\_NRW0049847 Action (due 31/12/25):** Rockwool to provide a more detailed explanation of calculation method and if necessary updated mass balance-based ammonia emissions estimates in the next IC22V report by 31 December 2025. **Action complete**

**CAR\_NRW0049847 Action (due 31/12/25)** Rockwool to provide confirmation that all waste processing including briquette recovery/fines trommel on the raw material yard has ceased.

**Action complete**

**CAR\_NRW0049847 Action (due 31/12/25)** Rockwool to provide details of actions already taken to investigate and rectify potential leakage from the process water tanks and associated drainage systems and proposals for any further investigation, repair, remediation and future inspection and pro-active maintenance regime, including timescales for implementation. **Outstanding**

**A number of actions have been listed in CAR\_NRW0049847 which are ongoing or have completion dates past this CAR, these will be addressed in the next CAR.**

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](mailto: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](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.