

Compliance Assessment Report CAR_NRW0052884

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: 30/06/2026.

Parts of permit assessed: IR4B.

NRW Lead Officer: Brigid Armstead.

Report sent to: Pencoed Rockwool, Pencoed Rockwool, on 07/09/2026.

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	Action only (X)	
IR1A - Installations - Management - General Management	Action only (X)	
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	Action only (X)	
IR1A - Installations - Management - General Management	C3 Minor	1.1.1
IR3B - Installations - Emissions and monitoring - Emissions of substances not controlled by emission limits	Action only (X)	
IR3B - Installations - Emissions and monitoring - Emissions of substances not controlled by emission limits	Action only (X)	
IR3B - Installations - Emissions and monitoring - Emissions of substances not controlled by emission limits	Action only (X)	
IR4B - Installations - Information - Reporting	Action only (X)	

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
IR3A(2)	Provide Q4 2026 ambient data and review with annual report.	31/01/2027
IR1A	Provide an Environmental Management Plan and Construction Environmental Management Plan for the remediation of the bank spoil contamination from the Raw Materials Yard.	31/12/2026
IR3A(1)	Provide an updated Conceptual Site Model (CSM) and plan to ensure appropriate monitoring of the groundwater.	31/01/2027
IR1A	Update EMS to ensure that periodic monitoring is complete where line 1 is in use	Already completed
IR3B	Provide figures for the quantity and concentration of ammonia sulphate that was lost in this incident.	30/09/2026
IR3B	Provide further information on the line 3 shutdown procedure, root cause for the use of the emergency chimney and a timeframe for emissions from A20	30/09/2026
IR3B	Provide further information on the line 3 shutdown procedure, root cause for the use of the emergency chimney and a timeframe for emissions from A20	30/09/2026
IR4B	Submit annual waste returns for 2020 to 2025 and quarterly waste returns for 2026 on the form provided by NRW.	31/12/2026

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

This compliance assessment report (CAR) contains a review of Rockwool Pencoed monitoring reports for April to June 2026 (Q2), as well as a record of a meeting held 26th August 2026 and an update on Rockwools progress with Actions outstanding from previous CARs.

Section 1. Online meeting 26 August 2026

An online meeting was held on 26th August 2026 with NRW Regulatory Officer (BA), NRW Hydrogeologist (SL) and Rockwool Environmental Manager.

The meeting included a discussion of actions from previous CARs with particular focus on the Raw Materials Yard and decontamination of the area to the south of this yard. Further details are included below under relevant actions.

NRW has recently consulted on a planning application for the site and have advised the operator that future changes to site may require a permit variation, particularly if the changes will affect the operators ability to comply with their permitted operating techniques. The Regulated Industry Permitting team has received a high volume of permit applications in recent months which has negatively affected NRW's ability to process applications in accordance with our published service level standards. There will be delays before applications can be assessed for completeness and duly made. The current estimate is approximately 9-12 months.

Section 2. Previous/ Ongoing CAR Actions

-	<u>Permit condition</u>	<u>Action summary</u>	<u>Due date</u>	<u>Response received</u>	<u>Action Status</u>
2.1	3.5.5	CEMs performance against specified CIs CAR_NRW0038845	Ongoing		Ongoing
2.2	3.1.2	Provide start-up and shut down criteria CAR_NRW0049847 (2)	31/3/26	11/8/26	Ongoing
2.3	3.1.2	Ambient air quality monitoring CAR_NRW0049847 (4)	31/3/26	31/3/26	Closed
2.4	1.1.1	Fly ash pot pressure control/relief CAR_NRW0049847 (10) & CAR_NRW0051727 (1) & CAR_NRW0051727 (7)	31/3/26	31/3/26	Closed Closed Ongoing
2.5	3.2.1	Materials storage yard remediation CAR_NRW0049847 (11)	ongoing	26/8/26	Ongoing
2.6	3.2.1	Materials storage yard hard standing - CAR_NRW0049847 (12) & CAR_NRW0051727(2)	ongoing	26/8/26	Ongoing
2.7	3.2.1	Process water tank and drainage inspection CAR_NRW0049847 (14) &	31/1/26.	11/8/26	Closed

		CAR_NRW0051727(3)			
2.8	4.2.2	Reporting management- CAR_NRW0050851 (3)	30/4/26	13/7/26	Closed
2.9	4.2.2	Line 1 emissions monitoring plan- CAR_NRW0050851 (4)	30/4/26	13/7/26	Closed
2.10	3.2.1	A22 Ammonia breach CAR_NRW0050851 (5)	30/4/26	13/7/26	Closed
2.11	3.1.2	Ammonia emissions to air root cause- CAR_NRW0050851 (7)	30/6/26	13/7/26	Closed
2.12	1.3.1	Specific water usage efficiency- CAR_NRW0050851 (8)	30/6/26	13/7/26	Ongoing
2.13	1.1.1	A17 Preventative Maintenance CAR_NRW0051727 (4)			To be verified next site visit
2.14	1.1.1	A2 Dust probe failure CAR_NRW0051727 (5)			To be verified next site visit
2.15	1.1.1	A19 CEMS power failure CAR_NRW0051727 (6)			To be verified next site visit
2.16	1.1.1	Silo 11 Flyash release CAR_NRW0051727 (7)			To be verified next site visit

2.1. CEMs performance against specified CIs

CAR_NRW0038845 Rockwool to provide NRW with evidence of CEM performance **Action ongoing**

To be assessed during next Operator Monitoring Assessment (OMA). The OMA will be scheduled once the QAL2 has been completed for the new CEMS.

2.2. Provide start-up and shut down criteria

CAR_NRW0049847 (2) Rockwool to provide further start-up and shut down criteria proposals, including technical justification and typical emissions profiles and explanation for inability of downstream abatement processes to control emissions variability during SU/SD.

Action ongoing.

Rockwool have advised that these documents are currently being finalized and should be ready to submit by the end of Sept 2026.

2.3. Ambient air quality monitoring

CAR_NRW0049847 (4) Rockwool to provide PM_{2.5}/PM₁₀ ambient air monitoring campaign data from Soar Chapel or make proposals for implementation of a monitoring campaign.

Action closed.

Proposals received on 31/3/26 for two PM_{2.5}/PM₁₀ monitors at 2 onsite locations, one at each noise monitor, to support assessment of secondary particulate formation potentially associated with ammonia emissions. Feedback provided by NRW air quality monitoring specialist on 18/6/26. Equipment has been purchased and is due for installation late September 2026.

Action 1. Provide Q4 2026 ambient data and review with annual report. **Due 31st January 2026**

2.4 Fly ash pot pressure control/relief

CAR_NRW0049847 (10) Rockwool to review and confirm pressure control/relief arrangements to prevent over-pressurisation during fly ash pot blowing make proposals for any identified improvements. **Action closed.**

CAR_NRW0051727 (1) Provide an update on the proposed butterfly valve installation to the fly ash pot pipework. **Action closed.**

CAR_NRW0051727 (7) The measures proposed by Rockwool Schedule 5 Part B received by NRW on 23rd April 2026 will require verification during the next site inspection. **Action ongoing.**

Response received 31/3/26 advising that every down day the level sensors and high level alarms are cleaned to remove fly ash and improve accuracy of readings. Maintenance schedule is on SAP.

Rockwool are scheduled to install butterfly valves on pipework in November 2026 so that blowing can only start once cleaning has completed, this will prevent the relief valve opening due to blocked filters. The butterfly valve will also close if fly ash capacity hits the High High Level or if the pressure exceeds a pre-determined value. This will stop the pot blowing in and

prevent the relief valve opening.

2.5. Materials storage yard remediation:

CAR_NRW0049847 (11) Rockwool to provide proposals for assessment, containment, and eventual remediation, including of any groundwater contamination, of this accumulated material. **Action ongoing.**

NRW received a geoenvironmental report from Rockwool on 1st April 2026 and a remediation plan on 17th April 2026.

NRW provided a response to the remediation plan by email on 6/7/26 advising that Rockwool may require a species licence for the work near the dormouse habitat and an ordinary watercourse consent from the local Authority given the proximity to the stream. Additionally an Environmental Management Plan is required for approval by NRW to ensure that the proposed mitigation is sufficient to protect the watercourse and ecology.

NRW provided a response to the geoenvironmental report by email on 25/8/26 with advice regarding the proposed remedial approach. The removal of the tipped materials from the slope is a reasonable and proportionate remedial measure but practical constraints will need to be assessed and a Construction Environmental Management Plan (CEMP) should be approved by NRW prior to commencement.

During the online meeting held on 26/8/26, Rockwool advised that they have progressed in internal discussions regarding the long term plans for the Raw Materials Yard and are assessing the options for remediation now that they have established future usage plans.

Action 2: Provide an Environmental Management Plan and Construction Environmental Management Plan for the remediation of the bank spoil contamination from the Raw Materials Yard. **Due 31 December 2026**

2.6. Materials storage yard hard standing

CAR_NRW0049847 (12) Rockwool to provide proposals for impermeable hardstanding with contained drainage for the materials yard, or alternative appropriate storage, including timescale for implementation. **Action ongoing.**

CAR_NRW0051727 (2) Provide a timeframe for remediation and provision of a hardstanding and drainage to the materials storage yard. **Action ongoing.**

An amended Emissions Management Plan was received by NRW on 1/4/26. A management of change process has been completed to relocate materials and prevent processing within the contaminated areas. Further proposals for impermeable hardstanding and contained drainage are under review, informed by ongoing soil investigation results and discussions with NRW.

Rockwool provided an update by email on 11/08/26 advising that a project team has been created and a plan is in progress. Rockwool now need a decision on remedial options to progress further with a structured plan.

2.7. Process water tank and drainage inspection

CAR_NRW0049847(14) 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 proactive maintenance regime, including timescales for implementation. **Action closed.**

CAR_NRW0051727 (3) Provide an update of the measures taken to reduce risk of groundwater contamination. **Action closed.**

Investigations into potential leakage from process water tanks and associated infrastructure are in progress through Root cause analysis. Site assessments were undertaken in January 2026, and quotations for tank integrity testing have been requested.

A radar survey is scheduled for completion in April 2026, with remedial works planned for May 2026 to reduce groundwater contamination risk.

A long term inspection and maintenance strategy will be developed following completion of remedial work on borehole caps as well as annual integrity checks with external company.

Rockwool provided an update on 11/08/26 advising that the process water tank drainage and borehole remedial work is now complete, re-testing planned for Sept 9th-10th. Process tanks NDT testing scheduled for August 2026.

Rockwools recent groundwater monitoring reports were reviewed by NRW's hydrogeological department, this feedback was provided to Rockwool by email on 25/8/26. The review concludes that the current groundwater monitoring network has successfully identified an emerging ammoniacal nitrogen issue but was not designed to characterise such impacts and is therefore insufficient to fully assess source, migration and receptor linkage. Reinstatement of BH5 is recommended as a proportionate first step. Further monitoring infrastructure should be based on an updated conceptual site model and confirmation of the relevant receptor pathway.

During the meeting on 26/8/26, Rockwool confirmed that borehole caps have been replaced and BH5 has been repaired and path improvements are being put in to ensure access to boreholes.

Action 3: Provide an updated Conceptual Site Model (CSM) and plan to ensure appropriate monitoring of the groundwater. **Due 31 January 2027**

Action 4: Management of containment will be assessed in a containment audit later this year.

2.8. Reporting management

CAR_NRW0050851 (3) Provide a root cause and plan of action to ensure that periodic reporting is submitted as specified by the permit. (Forms Air 2A, Air 2B and Water Usage). **Action closed.**

Forms Air 2A, Air 2B and Water Usage were submitted on 20/2/26. The root cause was identified as an oversight, late submission of forms has been assigned a non compliance in CAR_NRW0050851

2.9. Line 1 emissions monitoring plan

CAR_NRW0050851 (4) Provide a root cause and plan of action to ensure that periodic testing of line 1 emissions points is complete in 2026. **Action closed.**

Rockwool submitted a Schedule 5 notification part A and part B on 17/3/26 for the lack of line 1 monitoring in 2025. The root cause of the lack of periodic monitoring for A1 and A3 was the absence of a formal process linking operational status of Line 1 with environmental permit monitoring requirements. At the time of compliance planning, Line 1 was understood to be non-operational and was therefore not incorporated into the 2025 periodic monitoring schedule. The line then operated for a total of 51 days during the year, however, no trigger and changeover in staff resulted in lack of initialization of the required monitoring.

Rockwool have advised that they have created a documented trigger within the environmental compliance calendar requiring review of monitoring obligations whenever a production line changes operational status. Additionally they have included a permit monitoring requirements within handover documentation during personnel changes to ensure continuity of compliance activities.

The root cause investigation has disclosed that a general management failure resulted in the lack of line 1 monitoring in 2025. **A category 3 (minor) non compliance** with permit condition 1.1.1 has been assigned to the root cause.

Action 4: Update EMS to ensure that periodic monitoring is complete where line 1 is in use. **Action complete**

2.10. A22 Ammonia breach

CAR_NRW0050851 (5) Provide a root cause investigation and plan of action to ensure that ammonia emissions do not exceed the permit limit at A22. **Action closed.**

A Schedule 5 part B notification was received by NRW on 13/7/26 advising that a corrective action plan has been developed to review the binder production process, verify emissions monitoring and reporting arrangements and implement any operational or process improvements identified through the investigation. The effectiveness of these actions will be verified through routine operational monitoring and future compliance emissions testing.

Further discussed during online meeting on 26/8/26. Rockwool continue to monitor

afterburner temperature and pressure as per IP14V surrogate parameter arrangements.

2.11. Ammonia emissions to air root cause

CAR_NRW0050851 (7) Provide a root cause for the increase in ammonia emissions to air in 2025. **Action closed.**

Rockwool carried out a root cause analysis and determined that the increase was primarily attributable to excessive ammonia dosing within the binder production process serving Lines 1 and 2. The increased ammonia usage resulted in a corresponding increase in calculated annual ammonia emissions reported through the mass balance methodology.

Rockwool completed a review of the binder production process to identify the cause of the increased ammonia usage. Process controls relating to ammonia dosing have been reviewed and corrective actions have been implemented to ensure ammonia addition is appropriately controlled. Ammonia dosing arrangements are currently under review, including an assessment of dosing performance to identify opportunities to optimise the dosing set-point where practicable.

2.12. Specific water usage efficiency

CAR_NRW0050851 (8) Provide a root cause for the increase in specific water usage and a plan to ensure that water is used efficiently in the activities. **Action ongoing.**

Rockwool have advised that an investigation into specific water usage increase from 2024 to 2025 is ongoing and a root cause and plan will be provided to NRW as soon as possible.

Section 3. Incidents and Notifications:

	Date	Release point	Pollutant	Cause/action required	Notification	Permit non compliance
3.1	27/4/26	Tank farm	Odour	Corroded bleed valve in tank farm	Odour reported 27/4/26	Ongoing investigation
3.3	4/8/26	A20	Smoke	Ongoing investigation	Smoke reported 4/8/26	Ongoing investigation

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1. **WIRS 2604293** 27 April 2026 odour reported, observed mid day.

Response received from Rockwool on 1 May 2026 advising that a leak was found in tank

farm due to a corroded valve. Rockwool advised that a new valve has since been fitted and the area has been diluted with water to reduce the ammonia and neutralise the area. The contaminated water in the bund has been pumped to the process water tank. Rockwool's preventative maintenance has now been improved to include daily inspection of the tank farm equipment.

Action 5: Provide figures for the quantity and concentration of ammonia sulphate that was lost in this incident. **Due 30 September 2026.**

Preventative maintenance for the tank farm will be assessed in a containment audit later this year.

2. **WIRS 2608618:** 4 Aug 2026 Bluey white plume

Response received from Rockwool on 11th August 2026 advising that smoke was due to emergency chimney A20 being utilised.

Action 6: Provide further information on the line 3 shutdown procedure, root cause for the use of the emergency chimney and a timeframe for emissions from A20. **Due 30 September 2026.**

Section 4. Waste Returns:

Enquiries made by NRW have revealed that the waste returns submitted by Rockwool under permit condition 4.2.5 have been in the incorrect format. It appears that the annual waste returns spreadsheet for site performance reporting under permit condition 4.2.2. was used for reporting against 4.2.5. The performance reporting form does not include waste codes which are required by NRW for the following reasons:

- The legal requirement for NRW to maintain a public register and to make this information available on that register.
- To collate waste data for the purpose of national reporting on waste statistics.
- To monitor site compliance with permit conditions.

Further to discussions with NRW, Rockwool have been sent the correct reporting forms have agreed to re-submit an annual waste return for each year from 2020 to 2025. For 2026, a return should be re-submitted for each quarter.

Action 7: Submit annual waste returns for 2020 to 2025 and quarterly waste returns for 2026 on the form provided by NRW. **Due 31 December 2026**

Section 5. Assessment of 2026 Q2 monitoring reports:

Emissions to air (continuous) parameters for A2 and A19 were received on 13/07/26 as

required by permit condition 4.2.3

Line 1: 0 operating hours in Q2.

Line 2: CO, CO_x, SO₂ and Dust continuous emissions monitoring system (CEMS) report figures are below compliance limits.

Line 3: CO, CO_x, SO₂ and Dust CEMS reported figures are below compliance limits.

Emissions to air (periodic) reports received and reviewed with all results below compliance limits.

W1: No emissions monitored in Q2.

Section 6. PO1 Waste acceptance criteria (Rockfon)

Rockwool submitted Rockfon waste acceptance criteria and waste acceptance procedure documents on 21st April 2026 which was reviewed and accepted by NRW on 22 May 2026. PO1 has now been discharged.

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.