Compliance Assessment Report CAR_NRW0053037

Permit being assessed: BR9383ID.

For: Queensferry Mineral Fibre Works , **held by:** Knauf Insulation Limited

At: Chemistry Lane , Queensferry, Deeside, Flintshire, CH5 2DA.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 30/06/2026.

Parts of permit assessed: See below.

NRW Lead Officer: Philip Harper.

Report sent to: EHS Manager, EHS Manager, on 28/09/2026.

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	Assessed (A)	
IR4C - Installations - Information - Notification	Assessed (A)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.1.2
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.1.2
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C3 Minor	3.1.2
IR1A - Installations - Management - General Management	C3 Minor	1.1.1a
IR2A - Installations - Operations - Permitted activities	C4 No impact (Suspended)	2.3.3

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

Total non-compliances recorded	Total non-compliance score
5	16

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)	See actions in main text	30/11/2026
IR3A(2)	See actions in main text	30/11/2026
IR3A(2)	See actions in main text	30/11/2026
IR1A	See actions in main text	30/11/2026
IR2A	Permit variation applied for	Already completed

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 assessment report has been generated for the review of the Q2 2026 monitoring returns and Q2 waste returns which have been submitted to NRW to satisfy conditions for permit BR9383ID.

Q2 (April – June) Monitoring Returns

The Q2 monitoring returns were received on the 20th July 2026 in accordance with permit condition 4.2.3.

Emission Point A

Monitoring for oxides of sulphur as SO_2 is undertaken a continuous monitoring at emission point A. The data shows a maximum daily average value of 1437.60 mg/m3 compared to the permitted limit value of 1350 mg/m3. This has been attributed to the failure of a control card within the bicarbonate dosing system.

A schedule 5 notification was received on the 27th April 2026. The notification provided the following information.

"*Initial bicarb feed tripped approx. 19;00 25/04/2026. ELVs for 25/4 were not at reportable levels.*

Emissions for 26/4 became reportable for daily average and exceeding half hourly limit for 4 half hourly periods during the afternoon of 26/4 while attempting to fix the control card issue. Confirmation of this data took place on 27/4 at 08:00."

The notification then goes onto describe the breaches as follows:

"*Daily average was 1437.599 mg/Nm3 Exceeding the ELV of 1350 mg/Nm3*

There were four half hour periods exceeding the higher 30 minute ELV:

10:00-10:29 was 2034.72 mg/Nm3

11:00-11:29 was 2046.03 mg/Nm3

Classified as Internal and General Business

11:30-11:59 was 2036.38 mg/Nm3

13:00-13:29 was 2100.20 mg/Nm3"

Part B of the notification described the measures that were to be taken to prevent a reoccurrence.

"*A faulty control card was removed from the panel and the screw wired up to run without the control card as there was no replacement in stock.*
A replacement card has now been sourced. It will be fitted during plant downtime scheduled 0400 Tuesday 28th to 2200 Thursday 30th April.
Current SO2 emission 00:00 to 11:55 27th April has averaged 1233 mg/Nm3, within the permitted ELV."

A category 3 score has been applied against permit condition 3.1.2 (IR3A(2)) Emissions to water, air or land.

According to NRW records, this the 8th emission limit breach at emission point A since September 2024.

During this period Notifications EP_EX_392, 393, 394, 395 and 396 were submitted to Natural Resources Wales in relation to the failure of the laser in the Opsis AR650 analyzer with loss of CO and H2O measurements.

Action 1. Undertake and document a root cause investigation into the SO2 abatement control card failure and subsequent permit exceedance, identifying immediate and organisational causes. Provide the report with corrective actions to NRW by the 30th November 2026.

Action 2: Review the sites critical spares strategy for emissions control and abatement equipment, including the bicarbonate dosing system. Provide a review and action plan to NRW by the 30th November 2026.

Action 3: Review and update preventative maintenance and inspection arrangements for the SO_2 abatement system to minimise the likelihood of reoccurrence. Provide evidence of the revised maintenance arrangements and implement the enhanced programme by the 30th November 2026.

Action 4: Review and revise procedures for the management of abnormal operation and equipment failures affecting emissions control systems, including criteria for continued operation, escalation, environmental risk assessment and shutdown decision making. Provide the revised procure to NRW by the 30th November 2026.

Emission point G

Particulate Matter

Monitoring for particulate matter at emission point G was undertaken in triplicate as required by the sites environmental permit on the 17th April 2026 as a Q1 retest. A result of 11.2 mg/m^3 was provided. This is a breach against the permitted limit of 10 mg/m^3.

A category 3 score has been applied against permit condition 3.1.2 (IR3A(2)) Emissions to water, air or land.

A schedule 5 part A notification was received from the 29th April 2026 as required by the site's environmental permit. The cause of the breach was found to be the installation of oversized spray nozzles. A notification provided the following information;

"*It is planned to change all 10 impact jet nozzles in the cooling zone extraction duct and to clean the extraction cyclone during the current scheduled shut 28 to 30 April 2026. The Q2 emission testing for the cooling zone is already scheduled for w/c 18th May.*"

Part B of the notification provided further details as follows:

"*8 impact jet nozzles were changed for new 12mm nozzles on 29/4/2026. There are only 8 nozzles not 10 as stated in the part A. Inspection of the used nozzles removed identified some over sized nozzles. Engineering department is reviewing stock levels and change frequency for the nozzles.*
The effect of the smaller nozzles should be positive on increased droplet creation and TPM removal. The effect will be assessed during Q2 emissions tests scheduled for w/c 18/05/2026"

An updated procedure for the replacement of nozzles at the cooling zone has been submitted to NRW for review.

Results for particulate matter monitoring which was undertaken on the 20th May 2026 were complaint with the environmental permit.

Action 5: Review and update maintenance arrangements for all environmentally critical plant and

equipment to ensure that critical components are identified, maintenance frequencies are appropriate, and equipment reliability is maintained to minimise the risk of permit breaches by the 30th November 2026.

Ammonia

Monitoring for ammonia was undertaken at emission point G on the 20th May 2026 with a triplicate average result of 20.4 mg/m3. This is a breach against the permitted limit of 10 mg/m^3.

A category 3 score has been applied against permit condition 3.1.2 (IR3A(2)) Emissions to water, air or land.

The operator has installed a new sulphuric acid scrubber to reduce ammonia emissions but is awaiting a permit variation prior to commissioning the new system.

Management System

The review of the Q2 2026 monitoring returns has identified a number of permit breaches arising from failures of emissions monitoring and abatement equipment.

NRW is concerned that the repeated occurrence of permit breaches arising from failures of emissions monitoring and emissions control equipment indicates that the site's management systems have not consistently ensured the availability and reliability of environmentally critical plant. The absence of a replacement control card for the bicarbonate dosing system, recurring failures affecting emissions monitoring equipment and the identification of degraded abatement components suggest potential weaknesses in maintenance management, critical spares arrangements, asset management and management oversight of compliance risks. These failings may have contributed to the permit breaches identified during this reporting period.

A Category 3 score has been applied against permit condition 1.1.1(a) under sub-heading IR1 Management.

The actions specified within this report require the operator to undertake a structured review of root cause analysis arrangements, maintenance management, critical equipment identification, critical spares provision and abnormal operating procedures. NRW will review the information submitted in response to Actions 1 to 4. Note that compliance scores may be revised on receipt and review of the information.

Q2 Waste Returns

The Q2 Waste Returns April to June 2026) were received via email on the 16th July 2026 as required by permit condition 4.2.5.

The returns show that the installation is still receiving waste code 101103 – Waste glass-based fibrous

materials which is not included in Table S2.2. The operator has now submitted a variation to add the waste code to the permit, a suspended category 4 score has been applied.

A suspended category 4 score has been applied under subheading IR2A, against permit condition 2.3.3.

Summary of WIR Reports

WIR 2604736 received on the 6th May 2026.

On the 6th May 2026, NRW received a report of strong odour from the chimney at Knauf Insulation, Chemistry Lane, Deeside. We are a nearby Primary school and there are small children playing outside on the playground breathing in the air.

An investigation was undertaken by the site and a response was received from the Process and Quality Manager on the 18th May 2026. The response was as follows:

"*In relation to the odour complaint 2604736 I went to investigate likely cause. Our Environmental Manager is currently on annual leave.*

From the viewpoint of our batch receiving building I have sight of both the chimney stack and location of the complaint.

The plume from the chimney is drifting in the general direction of the school at 11:15am due to a wind direction. The wind is light 5mph and the visibility clear.

Whilst there is some variability the plume is main moving towards the South South Westerly direction away from the school towards Mancot Lane during the observation period, when the wind drops the plume is higher.

Our emission monitoring trends are all within the required limits. There are no unusual or abnormal operations on site."

NRW has been unable to substantiate that a breach of permit has occurred on this occasion. No permit non-compliance scores have been applied.

No further WIRS were received during quarter 2 of 2026.

Kind Regards

Phil Harper

Lead Specialist - Industry & Waste Regulation NE

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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.