

Compliance Assessment Report CAR_NRW0040068

Permit being assessed: BR9383ID.

For: Queensferry Mineral Fibre Works , held by Knauf Insulation Ltd
At: Chemistry Lane , Queensferry, Deeside, Flintshire, CH5 2DA.

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

On 22/06/2022 between 10:00 and 13:45.

Parts of permit assessed: Various

NRW Lead Officer: Stuart Ross, accompanied by Julia Frost.

Report sent to: Graham Jones, Environment, Energy & Compliance Manager on 30/06/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	
C2 - General Management - Management system and operating procedures	C2 Significant	1.1.1
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C2 Significant	3.3.1

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

Total number of non-compliances recorded	Total non-compliance score
2	62

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
C2	Refer details section.	30/09/2022
G1	Refer details section.	31/08/2022

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.

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 follows a site inspection 22/06/22 during which outstanding actions required by Compliance Assessment Reports CAR_NRW0038762 and CAR_NRW0039260 were reviewed. The actions have subsequently been revised and re-listed below for Knauf Insulation's attention. The actions detailed below entirely replace those in CAR_NRW0039260 (OMA).

Some of the actions were satisfied during the inspection and these are detailed in this report.

During the inspection additional information was made available regarding the QAL2 and AST calibration history of the CEMS serving emission point A. NRW has identified non-compliance and therefore additional non-compliance scores and associated actions are listed in this report – see below.

N.B NRW will review Schedule 5 notifications under a separate Compliance Assessment Report as part of our review of your quarterly emissions monitoring returns for the period January – March and April – June 2022.

1. CAR NRW0038762 (Site Inspection 25/08/21)

Acid Gas Scrubbing

Action 1 - Knauf Insulation to produce a report summarising the changes made to the acid gas scrubbing system serving Emission Point A following the introduction of sodium bicarbonate dosing in replacement of lime. To include an assessment of the impact on acid gas emissions, emission limit compliance and abatement system reliability. Please do so by 31/07/22.

Binder Fume

Mixing and raw material vessels vent to atmosphere via the fume plant stack (some areas have LEV) that is driven by a small stack fan with no abatement plant.

This arrangement is detailed in the original permit application. All emissions bar ammonia screened out during the H1 assessment; ammonia appears to have been modelled in air dispersion modelling report for the site.

NRW considers that unabated emissions of this type may not constitute Best Available Technique and seek to review this issue against the relevant Bref / BAT Conclusions document. No action required by Knauf Insulation at this time / until further notice.

Site Maintenance

A summary of the PM checks for abatement plant was discussed. No further action required but this issue will be subject to future inspection.

Stack G Emissions Monitoring

Since the issue of CAR NRW0038762, Knauf Insulation have reportedly completed 10 days

of continuous ammonia emissions monitoring (FTIR) on this stack with a view to trending emissions against process conditions. This is for the purposes of identify the cause of elevated ammonia emissions and measures to improve emission limit compliance.

Action 2 -: Knauf Insulation to provide NRW with a copy of the above review and any proposed improvement measures by **31/10/22**.

Oxygen Generator

Since the issue of CAR_NRW0038762 the permit variation has been granted for the operation of the oxygen generator. During the inspection it was reported that the oxygen generator is operational, and the bulk oxygen tank is to be decommissioned.

No further action required.

2. CAR NRW0039260 (OMA Air Audit 11/11/21)

Text in *italics* denotes the significant actions lifted from the original Compliance Assessment Report. The following actions shall be followed in place of those detailed in the original CAR. Comments in the OMA report can be considered as advice and guidance.

Additional non-compliance and actions are detailed below regarding the implementation of BS EN 14181.

A1 Urgent Review and Improvements to EMS and reporting required as prescribed in both OMA and this CAR form 02/05/2022.

Knauf Insulation report that this will be addressed in a new emissions monitoring Work Instruction in development to replace/update QF_WI_055 Monitoring Emissions to Air.

Action 3 – Submit the draft Monitoring Work Instruction to NRW by 30/09/22 (note Action 7 below re. implementation of BS EN 14181) to ensure the monitoring requirements of the permit are fully implemented and as part of the Environmental Management System.

B5 Need to install new equipment (expired Durag for particulates) and ensure its MCERTS accredited, with evidence to be presented via certification 02/05/2022

As discussed the MCERTs certificate for the Durag DURAG D-RX 250 (certificate number MC150258/01) expired 15/01/20. Any product manufactured after this date is not certified. For instruments already installed (as in this case) the MCERTS certificate is not affected by certificate expiry and therefore no action is required by Knauf Insulation. When the instrument is replaced, it must have a valid MCERTS certificate.

C2 Review and retake QAL2, consider calibration validation and audit monitoring team needs to be carried out and evidenced along with improvements to the procedural aspects of this 02/05/2022.

During the inspection Knauf Insulation confirmed that an Annual Surveillance Test (AST) was performed in 2021 and not a QAL2 as previously stated during the OMA.

Following the inspection Knauf Insulation supplied the 2016 QAL 2 report and ASTs for the period 2017 – 2021.

Permit condition 3.3.1 requires that

'CEMs which meet the MCERTS requirements should also follow the principles of EN 14181 (i.e. QAL2/AST and QAL3) but a reduced number of parallel measurements may be acceptable (subject to NRW approval)'. Refer Schedule 3 Table S3.1.

A QAL 2 assessment was completed in 2016 and all parameters passed, as did the 2017 AST. Since that time ASTs have been completed annually with all parameters having failed at least once and, in some cases, multiple times.

MCERTs accredited test laboratories have repeatedly highlighted the failures and clearly stated the need for investigation and a repeat AST or QAL2 as applicable. However, Knauf Insulation has failed to act.

Accordingly, the monitoring data being generated is not reliable, in some cases (2021 AST for Particulate Matter) the CEM is reading emissions significantly below those measured using the standard reference method and at levels that may be in exceedance of the daily emission limit value, indicating issues with abatement plant.

Failure to calibrate the CEMS in accordance with permit condition 3.3.1 and monitor emissions reliably has the potential for significant environmental impact and therefore a non-compliance score of 2 is awarded.

Additionally, the absence of procedures and sufficiently competent persons to properly implement the requirements of BS EN 14181 is in breach of permit condition 1.1 and its subsections. This has the potential for a significant environmental impact and a non-compliance score of 2 is awarded.

Permit condition 1.1 requires that;

1.1.1 The operator shall manage and operate the activities: (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

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.

N.B NRW will review the QAL 2 and AST reports in more detail and provide additional comment. Given the findings detailed in this report NRW will be in contact to arrange another Operator Monitoring Assessment (OMA).

At the time of the inspection Knauf Insulation reported that a linearity check has been arranged for 19/07/22 with Enviro Technology ahead of a QAL2 exercise 25-27/7/22.

Action 4 – A full QAL 2 exercise (no reduced parallel measurements) shall be performed 25-27 July 2022 on CEMS serving emission point A. The QAL 2 report shall be submitted to NRW by 31/08/22 and any valid calibration functions implemented within one week of Knauf Insulation receiving the report from the MCERTs Test House.

Action 5 - Before the QAL 2 exercise is completed the cause of previous AST failures should be reviewed with all relevant parties (e.g. MCERTS Test house and CEMS maintenance contractor) and the CEMS inspected and serviced as necessary to avoid QAL2 failures. Functional Tests shall be completed as required by BS EN 14181.

Action 6 - Review the existing CEMS maintenance regime against the requirements of the manufacturer's manual and take steps (where necessary) to ensure the instruments are maintained accordingly. Provide a copy of your findings and a description of the maintenance provisions in place by 30/09/22.

Action 7 – A copy of the signed Site Specific Protocol for the QAL 2 shall be submitted to NRW before the QAL 2 exercise is completed.

Action 8 – A procedure for the implementation of BS EN 14181 shall be written to ensure the requirements of the standard (inc QAL1, 2, 3 plus AST) are applied to CEMS serving emission point A. A copy of the procedure shall be submitted to NRW by 30/09/22.

Action 9 – Site personnel responsible for managing the calibration of the CEMS shall receive suitable training in BS EN 14181 to ensure the requirements of the permit and monitoring standard are met.

The Source Testing Association (<http://www.s-t-a.org/training/>) Holds relevant one day training courses for operators including:

- Regulatory Monitoring Requirements for Process Operators
- BS EN14181 quality assurance of an AMS (covering the CEMs and parallel testing)

C2 *Need to install a DAHS MCERTS accredited system, to predict alarms and make prompt adjustments/interventions 02/05/2022.*

Knauf Insulation report that they intend to source and install MCERTS accredited Data Acquisition and Handling Software (DAHS).

Action 9 – Provide NRW with the timescales for implementation by 30/09/22.

G1 *Need to have a Monitoring Plan implemented and a copy provided as evidence of the scheduling to improve reporting and evidence of data validation, calibration 31/03/2022 .*

To be submitted with revised Work instruction as detailed above,

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 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.