

Compliance Assessment Report CAR_NRW0039240

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: Report/Data Review, Reason: Routine.

On 30/12/2021.

Parts of permit assessed: Q4 Returns review, ELV's and Operations during WIRS reports, Part A & B's submissions for Q4

NRW Lead Officer: Berwyn Williams.

Report sent to: Graham Jones, Environment, Energy & Compliance Manager on 10/02/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
C2 - General Management - Management system and operating procedures	Assessed (A)	
E1 - Emissions - Air	Assessed (A)	
E3 - Emissions - Surface water	Assessed (A)	
E5 - Emissions - Waste	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	

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?

No action required.

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**This CAR follows the submission of a number of Schedule Notifications, Quarterly Returns of Environmental Monitoring (Q4 October to December 2021) and investigation observations following reported incidents****Environmental Monitoring**

All emissions monitoring were undertaken as required by condition 3.3.1 and Tables S3.1, S3.2 and S3.3.

SO2 emissions monitoring

The ELV for SO2 is 1350mg/m3. CEMS Monitoring.

Monthly averages were: October -1003.56 mg/Nm3, November - 1075.24 mg/Nm3, December - 1012.37 mg/Nm3

Monthly maximums were: October - 1164.87 mg/Nm3, November - 1307.97 mg/Nm3, December - 1164.76 mg/Nm3

No exceedances recorded in the 4th quarter of 2021.

Chlorides emissions monitoring

EP_EX_286, 287 and 288 Part A and B notifications received on 10/10/21, 03/11/21 and 17/11/21 identified an elevated HCL result 0.78 kg chlorides as HCl (estimated on 25 mg/Nm3 chlorides as HCl and 11000 Nm3/hr flow), 0.92 kg chlorides as HCl (estimated on 25 mg/Nm3 chlorides as HCl and 11000 Nm3/hr flow) 1.51 kg chlorides as HCl (estimated on 25 mg/Nm3 chlorides as HCl and 11000 Nm3/hr flow) respectively due to feed screw/feed agitator and comms issues.

The ELV for chloride is 10mg/m3, the results obtained during Q4 sampling on 15/10/21

Chlorides as HCl as:

Run 1 1.6 mg/m3

Run 2 1.4 mg/m3

Run 3 2.6 mg/m3

The abatement trial has been successful in reducing both chloride and oxides of sulphur and use of sodium bicarbonate powder for abatement is ongoing.

Chloride abatement using sodium bicarbonate continued throughout Q4.

This is a permanent change from lime due to the much better abatement control of SO2

that it gives.

Particulate emissions monitoring/sampling - Point C (Mainline Forming Stack)

The ELV for Particulates is 50mg/m³

Readings for Stack C Q4 testing -

Result 1 - 31.2 mg/m³

Result 2 - 33.4 mg/m³

Result 3 - **52.1 mg/m³***

In run 3 the result of the test for Particulate Matter exceeded the ELV in the permit at 52.1 mg/m³. The average across the 3 runs was 38.9 mg/m³. Measurement uncertainty for run 3 was 2.6 mg/m³ so the run was within ELV plus uncertainty and uncertainty within the allowable range of 20% (EN 13284-1)

Particulate & Ammonia emissions monitoring/sampling - Point G (Cooling Zone Stack)

The ELV for Particulates is 10mg/m³

Readings for Stack G Q4 testing -

Result 1 - **11.1 mg/m³ ***

Result 2 - 6.9 mg/m³

Result 3 - 4.1 mg/m³.

In run 1 the result of the test for Particulate Matter exceeded the ELV in the permit at 11.1 mg/m³. The average across the 3 runs was 7.3 mg/m³. Measurement uncertainty for run 1 was 1.1 mg/m³ so the run was within ELV plus uncertainty.

The ELV for ammonia is 10mg/m³.

Readings for Stack G Q4 testing -

Result 1 - **11.7 mg/m³ ***

Result 2 - 5.7 mg/m³

Result 3 - 5.0 mg/m³.

In run 1 the result of the test for Ammonia exceeded the ELV in the permit at 11.7 mg/m³. The average across the 3 runs was 7.4 mg/m³. Measurement uncertainty for run 3 was 2.1 mg/m³ so the run was within ELV plus uncertainty.

Findings - Run 1 for both Particulate Matter and Ammonia were conducted simultaneously in 2 parts either side of an unplanned line stop caused by a Hot End control issue, when a screen froze affecting binder preparation at a product change. Operator believes that this has affected the run 1 results compared to runs 2 and 3 where they were in continuous production.

NRW welcomes the operators consideration that in similar circumstances in the future, they propose to delay resumption of sampling after a restart (for say 10 to 15 minutes) to allow the process to settle again.

CO emissions monitoring

CO ELV limit - 80mg/m3.

CO Maximum Daily Average - 59.75 mg/m3 for October

CO Maximum Daily Average - 57.20 mg/m3 for November

CO Maximum Daily Average - 51.10 mg/m3 for December

Emissions to water (not sewer) for 6 months July - December 2021

L3 - pH 8.02, SS 21.1, COD 20.1

L4 - pH 7.47, SS 12.6, COD 14.2

L5 - pH 7.48, SS 12.1, COD <7

L6 - pH 7.18, SS 4.5, COD 11

None of the four samples had visible oil or grease present. Low levels were confirmed in analysis results.

Incidents and Responses during Q4

Following WIRS reports came in:

2108773 - Odour - Not substantiated

2108990 - Self reported abatement by operator at 2009 hours.

Powder feed hopper agitator stopped due to entanglement with rope of unknown origin. A part A was written confirmation of the report made by phone to our ICC. Operation was restored by 2050 hrs. Abatement of cupola gases using bicarbonate powder dosing was being maintained.

Part B then stated - The procedure for putting up a new full bag of bicarbonate now includes cutting off and completely removing the bottom bag neck straps.

2109142 - Odour - Not substantiated

2110128 - Noise - Not substantiated

2110176 - Noise - Not substantiated

No further points to make with regards to this report other than improvements have been acknowledged and other actions from OMA observations serve as part of a separate OMA report and associated CAR form.

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.