

Compliance Assessment Report CAR_NRW0038983

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 26/11/2021.

Parts of permit assessed: Q3 Returns review, ELV's and Operations during WIRS reports, Part A & B's submissions for Q3

NRW Lead Officer: Berwyn Williams.

Report sent to: Graham Jones, Environment, Energy & Compliance Manager on 22/12/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	C3 Minor	3.1.2
C2 - General Management - Management system and operating procedures	Ongoing (O)	1.1.1 (a) and 1.1.2

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

Total number of 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
E1	There's too many incidents of process control system failures surrounding the cupola stack after oxidiser and abatement feed systems. Need to consider an improvement in maintenance or frequency of monitoring at this location to avoid SO2 breaches. Consider an action plan to be submitted to NRW to manage avoidance of ELV breaches by 20/02/22.	20/02/2022
C2	NRW acknowledges that surrounding businesses may be the source of incidents reported to NRW. The operator should review their procedures for incidents involving potential off-site emissions from the permitted site and submit to NRW for review to satisfy conditions 1.1.1 (a) and 1.1.2. are met fully. Still not in receipt of improvement report for off-site investigations, which was requested in previous CAR_NRW0038446, following emails on guidance matters.	20/02/2022

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.

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 CAR follows the submission of a number of Schedule Notifications, Quarterly Returns of Environmental Monitoring (Q3 July to September 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

EP_EX_283, 284, 285 Part A notifications submitted on 16/08/21, 21/08/2021, 21/09/21 along with subsequent Part B's, for various process and control issues. 1561 mg/Nm³ measured average 14000 Nm³/h flow for 4 hours during 21/08 incident. 1406.6 mg/Nm³* on 20/09/21.

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

Monthly averages were: July -1057.2 mg/Nm³, August - 1065.22 mg/Nm³, September - 1081.41 mg/Nm³

Monthly maximums were: July - 1209.46 mg/Nm³, August - 1384.06* mg/Nm³, September - 1406.60* mg/Nm³

Breaches - 8/8 - **1384.07 mg/Nm³** and 20/09 - **1406.6 mg/Nm³**

CCS Category 3 breach of condition 3.1.2, criteria E1 emissions to Air

ACTION:

There's too many incidents of process control system failures surrounding the cupola stack after oxidiser and abatement feed systems. Need to consider an improvement in maintenance or frequency of monitoring at this location to avoid SO₂ breaches. Consider

an action plan to be submitted to NRW to manage avoidance of ELV breaches by **20/02/22**.

Chlorides emissions monitoring

EP_EX_284, 286, 287 and 288 Part A and B notifications received on 21/08/21, 10/10/21, 03/11/21 and 17/11/21 identified an elevated HCL result 1.4 kg chlorides as HCl (estimated on 25 mg/Nm³ chlorides as HCl and 14000 Nm³/hr flow) and 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 show

Chlorides as HCl as:

Run 1 0.34 mg/m³

Run 2 0.84 mg/m³

Run 3 0.94 mg/m³

The average result of 0.71 mg/m³ was within the ELV of 10 mg/m³ with a range of measurement uncertainty of +/- 0.06 mg/m³.

These results were achieved having changed the powder dosing for chloride abatement from lime to sodium bicarbonate for a trial period, mainly to reduce emissions of oxides of sulphur.

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

Advice: There's too many incidents of process control system failures surrounding the cupola stack after oxidiser and abatement feed systems. Need to consider an improvement in maintenance or frequency of monitoring at this location to avoid potential HCl breaches. Consider an action plan to be submitted to NRW to manage avoidance of ELV breaches by **20/02/22**.

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

The ELV for Particulates is 10mg/m³

Readings for Stack G Q2 testing -

Result 1 - **10.2 mg/m³**

Result 2 - 9.9 mg/m³

Result 3 - 6.8 mg/m³.

Particulate Matter average result was 9.0 mg/m³, within the permitted ELV. * Result 1 result is not notifiable as it is within ELV plus Measurement Uncertainty of 0.67 mg/m³.

The ELV for ammonia is 10mg/m³.

Readings for Stack G Q2 testing -

Result 1 - 3.0 mg/m³

Result 2 - **11.6 mg/m³**

Result 3 - 8.9 mg/m³.

Ammonia average result was 7.8 mg/m³, within the permitted ELV. ** Result 2 is not notifiable as it is within ELV plus Measurement Uncertainty of 1.6 mg/m³.

CO emissions monitoring

CO ELV limit - 80mg/m³.

CO Maximum Daily Average - 59.75 mg/m³ for July

CO Maximum Daily Average - 57.20 mg/m³ for August

CO Maximum Daily Average - 51.10 mg/m³ for September

Incidents and Responses during Q3

WIRS 2106075 - Dust

Caller complaining of a "dust particulates" coming from the Knauf factory on 17/07/21.

Following an on-site and off-site investigation by the operator, it was not clear as all operations were operating within ELV's and normal conditions. The initial report did not have any unusual process events or flows that might have been an attributable cause. However there was visible evidence on both factory surfaces and the reports vehicles, which substantiates same source issues.

The colour of the wet deposits suggests that circulating water from the ceilcote scrubber could have been carried through.

Actions taken

Action was taken to clean the affected cars as soon as practicable.

CCS Category 3 breach of condition 1.1.1 (a) and 1.1.2, criteria c2 plant.

ACTION: NRW acknowledges that surrounding businesses may be the source of incidents reported to NRW. The operator should review their procedures for incidents involving potential off-site emissions from the permitted site and submit to NRW for review to satisfy conditions 1.1.1 (a) and 1.1.2. are met fully. Still not in receipt of improvement report for off-site investigations, which was requested in previous CAR_NRW0038446, following emails on guidance matters.

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.