

## Compliance Assessment Report CAR\_NRW0036943

**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 21/09/2020.

Parts of permit assessed: Various

**NRW Lead Officer:** Stuart Ross.

**Report sent to:** Graham Jones, Process & Energy Manager on 23/09/2020.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.3.1
E1 - Emissions - Air	C3 Minor	3.1.2
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C4 No impact	3.3.1
E1 - Emissions - Air	C3 Minor	3.1.2
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3 Minor	3.3.1
E4 - Emissions - Sewer	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
5	12.2

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
G4	With immediate effect ensure arrangements are in place to ensure your MCERTs test house can communicate extractive test results to relevant site personnel (including during plant shutdown or where key staff members are furloughed) to meet the notification requirements set out in the permit.	23/09/2020
E1	Submit Wood improvement options study report on emission point G to NRW.	27/11/2020

Criteria	Action needed	Complete by
G1	Score suspended in accordance with NRW's COVID 19 regulatory position statement for late emissions monitoring.	Already completed
E1	Remedial measures subsequently completed by operator on emissions abatement. Please submit a Part B notification for NRW.	09/10/2020
G1	<p>Action – Complete a review of measures required to ensure CEMS failures are detected and acted upon in a timely manner and improvement actions implemented accordingly. Operational procedures and staff training shall be updated. Provide NRW with a summary of your review findings and improvement measures taken.</p> <p>Action - Complete a review of cupola pre start checks to ensure CEMs are fully operational upon cupola start up. Operational procedures and staff training shall be updated. Provide NRW with a summary of your review findings and improvement measures taken.</p> <p>Action - Complete a review of CEMS reliability over the past 12 months and potential areas for improvement to prevent and minimise CEMS downtime due to system faults and component failures. Provide NRW with a copy of your report and any improvement items.</p> <p>Action - Provide NRW with a summary of your investigation into possible weather related impacts on the failure of the CEMS detailed in this section.</p>	30/10/2020

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 Compliance Assessment Report follows a review of routine monitoring returns for the period 1<sup>st</sup> January to 31 July 2020 and other notifications relating to the monitoring of

emissions.

Note, non-compliance scores for monitoring returns are applied per quarter in line with NRW scoring guidance.

### **1. Routine Emissions Monitoring Data Review**

#### **Quarter 1 (1<sup>st</sup> January – 31<sup>st</sup> March 2020)**

Continuous and extractive monitoring (emissions to air) completed as required by the permit.

Emissions were found to be compliant with the permitted emission limit values with the following exception;

**Emission Point G** (Mainline Cooling Zone), 25/02/20, ammonia recorded at 21.6, 20.4 and 23.6 mg/Nm<sup>3</sup> in exceedance of the permitted emission limits (10 mg/Nm<sup>3</sup>).

The exceedance of a permitted emission limit value is a breach of permit condition 3.1.2 and attracts a CCS score of 3.

A Part A notification (ref. EP\_EX\_249) was not received until 01/07/20 owing to the monitoring report being sent to furloughed personnel. The late notification is in breach of permit condition 4.3.1 and attracts a CCS score of 4. Steps should have been taken to ensure test results were communicated to relevant personnel whilst staff were furloughed.

**Action 1** – with immediate effect, ensure arrangements are in place to ensure your MCERTs test house communicates extractive test results to relevant site personnel (including during plant shutdown or where key staff members are furloughed) to meet the notification requirements set out in the permit.

A part B notification was subsequently received 17/07/20 and reported that in January Wood consultants were engaged to carry out a study of improvement options for this emission point but progress paused due to availability of personnel resulting from Covid-19 precautions this is now progressing again.

**Action** – submit the Wood improvement options study report on emission point G to NRW by 27/11/20.

#### **Quarter 2 (1<sup>st</sup> April – 30<sup>th</sup> June 2020)**

Knauf report that the extractive monitoring (emission points A, C and G) due during this quarter was delayed until 06/07/20 owing to changes in production schedules related to the effects of Covid-19 on product demand. The late monitoring is technically in breach of permit condition 3.3.1 (CCS4) but in accordance with NRW's Covid position statement this score is immediately suspended.

Emissions were found to be compliant with the permitted emission limit values with the following exception;

**Emission Point C (Mainline Forming Stack), 08/07/20**

Particulate Matter recorded at 77.2, 36.3 and 86.7 mg/Nm<sup>3</sup> (average 66.7 mg/Nm<sup>3</sup>) in exceedance of the permitted emission limit (50 mg/Nm<sup>3</sup>).

Phenol recorded at 13.2, 14.5 and 13.8 mg/Nm<sup>3</sup> (average 13.8 mg/Nm<sup>3</sup>) in exceedance of the permitted emission limit (10 mg/Nm<sup>3</sup>).

These exceedances of the permitted emission limit values are in breach of permit condition 3.1.2 and attract a CCS score of 3.

A Part A notification (ref. EP\_EX\_250) was received 04/08/20 on receipt of the test results.

The Part A and email correspondence reported that extensive refurbishment of the abatement system for this emission point was carried out as part of a shutdown and maintenance work already scheduled from 18<sup>th</sup> July to 3<sup>rd</sup> August.

The following work was carried out:

- All baskets for packing medium were removed and replaced with new
- All packing medium (tellerettes) was removed and replaced with new
- All water distribution spray nozzles were replaced with new nozzles
- System was cleaned internally
- All water circulation tanks were emptied, cleaned and refilled with fresh water.

**Action 2** - Please submit a Part B notification for NRW by 09/10/20.

N.B Emission point G was compliant during this quarter.

**Discharges to Sewer**

Monitoring completed in accordance with the permit – no issues noted.

**2. Continuous Emissions Monitoring System Failures (Emission Point A)**

During Quarter 1 the following notifications were received reporting issues with the Continuous Emissions Monitoring Systems (CEMS).

**Knauf Reference EP\_EX\_246**

Upon start-up of the cupola 11/05/20 the Durag 250-D unit failed affecting dust measurement until the unit was replaced 14/05/20.

The fault was not detected until the following morning on 12/05/20 and reported to NRW at that point.

The Part B notification reported that ‘the Durag control unit generates a 15V supply to run the measurement device. There was no voltage present when inspected by Knauf personnel. On line checks by the Enviro Technology engineer confirmed that the unit had failed and a replacement was required. A replacement unit was sourced on 13/5/20 and

arrangements made for Enviro Technology to fit it on 14/5/20

It was reported that the unit was 16 years old when it failed.

Failure to monitor is a breach of permit condition 3.3.1 (CCS 3).

#### **Knauf Reference EP\_EX\_247**

22/5/2020 15:02 to 11:20 26/5/20

A dip in the main power supply to the site caused various pieces of equipment to stop running. This included the AR650 analyser that measures the CO content in emission point A.

Knauf report that the CEMS analysis and data collection appeared to be normal when checked at 1510 on 22/5/20 but as of 1515 it dropped to and stayed at 2 mg/Nm<sup>3</sup>

(undetected). Knauf report that power dips in the main supply are an infrequent but long standing issue that are outside our control and queried with the supplier when they occur.

Of concern is the fact that the CEM failure was not detected for nearly 4 days whilst the plant continued to operate. This inevitably prevented any remedial action being taken to return the instrument to service as quickly as possible. Due to this excessive period of time without CO monitoring, this is considered to be in breach of permit condition 3.3.1 (CCS 3).

The Site maintenance team investigated with further online checks by Enviro Technology Engineer. A power reset by site personnel and program checks by the Enviro Technology engineer restored CO measurement on the AR650 at 11:20 26/5/20.

#### **Knauf Reference EP\_EX\_248**

22/06/20 – 02/07/20

Knauf reported that upon start up of the cupola at 09:10 on 22/06/20 the Durag 250-T unit 'did not work'. This failure prevented peripheral measurements being collected to correct CEMs data for permit compliance purposes (Knauf corrected data using fixed values for temperature and pressure based on the last campaign run in May 2020).

The unit failure was not identified until 13:00 of the same day.

The control unit was found to be faulty and replacement was sourced and installed 02/07/20.

Knauf reported that the unit was 16 years old when it failed and although the reason for the failure is uncertain a review would be completed as to weather protection of the control units having had 2 units in the same location fail so close together

Failure to monitor peripheral measurements (temperature and pressure) and report emissions data to STP as required by the permit is a breach of permit condition 3.3.1 (CCS 3).

Actions for this section;

**Action 3** – Complete a review of measures required to ensure CEMS failures are detected and acted upon in a timely manner and implement improvement measures accordingly. Operational procedures and staff training shall be updated. Provide NRW with a summary of your review findings and improvement measures taken by 30/10/20.

**Action 4** - Complete a review of cupola pre start checks to ensure CEMS are fully operational upon cupola start up. Operational procedures and staff training shall be updated. Provide NRW with a summary of your review findings and improvement measures taken by 30/10/20.

**Action 5** - Complete a review of CEMS reliability over the past 12 months and potential areas for improvement to prevent and minimise CEMS downtime due to system faults and component failures. Provide NRW with a copy of your report and any improvement items by 30/10/20.

**Action 6** - Provide NRW with a summary of your investigation into possible weather related impacts on the failure of the CEMS detailed in this section by 30/10/20.

N.B. Non compliance scores applied for the CEMS failures during Quarter 1 have been consolidated as a single non compliance score of 3.

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](mailto: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](mailto: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.