

**This form will report compliance with your permit as determined by an NRW officer**

Site	Queensferry Mineral Fibre Works	Permit Ref	BR9383ID		
Operator/Permit holder	Knauf Insulation Ltd				
Regime	Installations				
Date of assessment	20/03/2018	Time in	09:30	Out	12:30
Assessment type	Audit				
Parts of the permit assessed	3.1, 3.2, 3.3, 3.4, 4.2, 4.3				
Lead officer's name	Voice, Elizabeth				
Accompanied by					
Recipient's name/position	Claire Keouski/ EHS Manager	Date issued	25/05/2018		

## Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
E1 - Emissions - Air	C3	3.1.2
	C3	3.1.2
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4	4.3.2
	C4	4.3.2
	C4	4.2.3

**KEY:** See Section 5 for breach categories, suspended scores will be indicated as such.

**A** = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

**O** = Ongoing non-compliance, not scored.

<b>Number of breaches recorded</b>	<b>5</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	<b>8.3</b>
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**If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response**

## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Review of submissions to NRW:

### **Knauf to provide a copy of their Odour Management Plan.**

Odour management plan submitted.

Tap out fugitives need to be added. Suggest that the odour assessment by operatives may need to be carried out outside site boundary.

What definition is being used for the ranking of low and medium probabilities of exposure on Table 2 (page 14)?

Page 19 – has training on odour management procedure been carried out?

Resubmit 30/06/18.

### **Improvement Condition 39**

Knauf carried out a thorough review of their raw materials to see whether changes in raw materials and batch formulation would reduce the HCl emissions. It was concluded that changes would not reduce the HCl emission, therefore secondary abatement options were reviewed. Trials were carried out in July 2017, October 2017 and January 2018. Knauf have concluded that lime dosing reduces the HCl emissions to below 10mg/m<sup>3</sup> with an injection rate of lime of between 10 – 50kg/hr. Knauf are now obtaining capital approval for the progression of the design, with procurement and construction taking place the second half of 2018 and early 2018. A permit variation will be submitted to NRW. Please provide updates on timescales for this project.

### **Improvement Condition 39**

Submitted and to be reviewed by NRW.

### **Emission point G - how to ensure ongoing compliance.**

Extracted air is drawn into a 1.1m<sup>2</sup> duct where it is sprayed by two pairs of opposed impact jets and is then passed to a cyclone separator. The air is passed through a 15m stack and the water and fibre are collected and pumped to a floor sump and back to the secondary wash water system for recycling.

Action taken by Knauf: the impact water jets have been removed and cleaned, all gaskets have been replaced with new items and the water flows checked. One of the impact jets had been blanked off, which was a deviation from the original design. The Production Department are implementing workplace standards for cleaning activities, including the Cooling Zone (emission point G). Photographic evidence will be used to validate that the work has been carried out to the required standard.

Monitoring was scheduled for February 2018. Please provide the report for this by 30/06/18.

## **Emission Point Y**

Results submitted to date are well below the emission limit value. Q1 report has not been submitted.

## **Reporting of Emissions from G and Y for Q1**

Permit condition 4.2.3 , consolidated score CCS4 for criteria G4 (reporting to NRW).

Action - submit Q1 results for G and Y by 30/06/18.

## **Part B reviews**

Part B's submitted for EX174-185 and EX187. NRW will review root cause analysis procedures with Knauf in future site inspection.

## **Breaches 2018**

EX 193 23/01/18

HCl breaches due to planned trial lime dosing to reduce HCl emissions, therefore not scored.

EX 194 25/01/18

Breach of daily average CO emission limit value. 'An investigation will be undertaken to ascertain root cause of the exceedance. No further information provided.

EX 195 26/03/18

Breach of daily average CO emission limit value. No further information provided.

EX 196 30/03/18

Breach of daily average CO emission limit value. 'An investigation will be undertaken to ascertain root cause of the exceedance. No further information provided.

EX 197 17/04/18

Breach of daily average SO2 emission limit value. 'An investigation will be undertaken to ascertain root cause of the exceedance. No further information provided.

EX 198 21/04/18

Breach of daily average SO2 emission limit value. 'An investigation will be undertaken to ascertain root cause of the exceedance. No further information provided.

EX 199 26/04/18

Breach of daily average SO2 emission limit value. 'An investigation will be undertaken to ascertain root cause of the exceedance. No further information provided.

EX 200 27/04/18

Breach of daily average SO2 emission limit value. 'An investigation will be undertaken to ascertain root cause of the

exceedance. No further information provided.

### **Breaches Q1**

Permit requirement 3.1.2

Breaches of emission to air for Q1 consolidated to CCS3

Action – awaiting response from root cause analysis by 30/06/18.

Permit requirement 4.3.2

Lack of Part B / root cause analysis consolidated for Q1

G4 – CCS4 (reporting to NRW)

Action – submit Part Bs by 30/06/18.

### **Breaches Q2**

Permit requirement 3.1.2

Breaches of emission to air for Q2 consolidated to CCS3

Action – awaiting response from root cause analysis by 30/06/18.

Permit requirement 4.3.2

Lack of Part B / root cause analysis consolidated for Q2

G4 – CCS4 (reporting to NRW)

Action – submit Part Bs by 30/06/18.

### **Site inspection**

Meeting with Knauf 20/03/18. A discussion was held regarding the composition of the tap out emissions with the EHS Manager and Project Engineer. A furnace run lasts 21 days, and over that time a 'doughnut' of vitrified materials collect at the base of the furnace consisting of basalt, dolomite, blast furnace slag, bauxite. The depth of this material increases through the run i.e. the depth to burn through during a tap out increases. This ties in with the amount of time and number of oxy-lances required to allow the molten iron to be tapped out. We observed a tap out from a 3-day old furnace using half an oxy lance, whereas this would require 1.5 lances towards the end of the run.

The fumes consist of thermal NOX, iron oxide and flux from the lance, vitrified raw material combustion (dust), clay, and a small amount of iron oxide from base of the furnace.

#### *Dust Emission Limit Value (ELV)*

The dust ELV had an error message on the control room monitor, with uncorrected reading of 74.4mg/Am<sup>3</sup> and corrected reading 4.4mg/ m<sup>3</sup>. The previous 24 hour rolling average was 0.0. The Hot End Operator was unsure what to do with this information.

Actions being taken by Knauf

- Review of environmental SCADA screens from other plants in Knauf Insulation Northern Europe
- Change to Queensferry's environmental SCADA screens following the review, which will be subject to

### Management of Change

- Training Hot End personnel on the environmental SCADA screens and emission limit values
- The 24 hour rolling average data will be recorded from 0:00 to 23:59 hours on the SCADA visuals.

Please provide timescales for the above actions.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0033410**

This form will report compliance with your permit as determined by an NRW officer

Site	Queensferry Mineral Fibre Works	Permit Ref	BR9383ID
Operator/Permit holder	Knauf Insulation Ltd	Date	20/03/2018

### Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

### Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			
G4	C4	Submit Part B	30/06/2018
E1	C3	Submit root cause analysis / Part B	30/06/2018
G4	C4	Submit Part B	30/06/2018
E1	C3	Submit root cause analysis / Part B	30/06/2018
G4	C4	Submit monitoring results for Q1 2018 for emission points G and Y.	30/06/2018

## Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

### Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

**Operational Risk Appraisal (Opra)** - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General information

### Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

#### What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk). If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

#### Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.