

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	25/05/2017	Time in	09:00	Out 17:00
Assessment type	Unknown			
Parts of the permit assessed	1.1, 2.3.1, 2.4, 3.1.2			
Lead officer's name	Voice, Elizabeth			
Accompanied by	Ross, Stuart			
Recipient's name/position	Claire Keouski/ EHS Manager	Date issued	28/07/2017	

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
A1 - Specified by permit	C3	2.3.1(a)
B1 - Infrastructure - Engineering for prevention and control of emissions	C3	3.2.1
C2 - General Management - Management system and operating procedures	C3	3.2.1
E1 - Emissions - Air	C3	3.1.2
	C3	2.3.1(a)
F3 - Amenity - Dust/fibres/particulates and litter	C3	3.2.1

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.

Number of breaches recorded	6	Total compliance score (see section 5 for scoring scheme)	24
------------------------------------	----------	---	----

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

Natural Resources Wales (NRW) visited Knauf Queensferry site on 25/05/17 to investigate issues relating to fugitive emissions from the site. This was in response to complaints by a neighbouring business on Factory Road regarding smoke coming from Knauf across their premises. NRW met with the Knauf Queensferry EHS Manager, Regional EHS Manager, Production Manager, Control Engineer, Hot End Manager and Amec Foster Wheeler consultant.

NRW were present during the cupola furnace 'tap out' and it is considered highly likely that this is the cause of the fugitive emission reported by the complainant.

The cupola furnace is 'tapped out' periodically to remove molten metals (principally iron). A tap hole is cut through the base of the furnace using a thermal lance and resealed using clay. This occurs every 3.5 hours during normal operation over a 21-day cycle, or every 2 hours if the cupola is on hold. A tap out will take approximately 2 minutes at the beginning of a cycle to 5 minutes at the end of the 21-day cycle. According to site 90% of the fumes from the tap out process are captured in the Ceilcote scrubber system with 10% being dissipated into the furnace building and being emitted through the roof vents. This was observed by NRW staff during the site inspection. The release of 10% of the tap out fumes into the furnace building area is not considered to be appropriate measures to prevent or minimise the emissions to air.

Knauf are to install CCTV to observe the tap out fugitives.

Compliance Assessment

Permit Condition 2.3.1 (a) Operating Techniques

The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation described in schedule 1, table S1.2, unless otherwise agreed in writing by NRW.

The plant is not operating in accordance with permit condition 2.3.1(a), in that the fugitives released during a tap out are not adequately included in the permit application or variation. This has been scored as CCS3, however if modelling demonstrates a different environmental significance then this will be reviewed.

Compliance

A1 CCS3 specified by the permit

E1 CCS3 emissions to air

Action: See below.

Permit Condition 3.2.1 Emissions of substances not controlled by emission limits

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent to where that is not practicable, to minimise, those emissions.

The Knauf Emissions Plan and 2015 Assessment has identified fugitive emissions of SO₂, NO₂, particulate and hydrogen sulphide from the furnace waste gas, and iron oxide particulates from the tap outs. The issues raised in this document for tap out relate to the change in colour of the plume from the main stack during tap out, and the use of Ceilcote scrubbers for abatement before discharge through the stack. Neither of these are fugitive emissions as they are emitted from the combined main stack A and C.

The fugitive emissions plan for the furnace waste gas refers to the release of waste gas from the furnace during the initial start-up of the cupola until normal conditions are met. It was explained that the start-up occurs approximately every 21 days. Controls are in place to minimise fugitive emissions during start-up, however there is no mention of the issues with fugitive emissions during the tap out process under normal operation.

Fugitive emissions were observed during the tap out process under normal operating conditions and must therefore be included in the fugitive emissions plan. The frequency of tap out should be included and the emission quantified.

Compliance

C2 CCS3 Management systems

B1 CCS3 lack of engineering to control emissions

Action

Calculate and model the fugitive emissions during tap out to assess impact on air quality. Deadline 30/09/17

Review options for preventing, and where not practicable, minimising the fugitive emissions from the base of the cupola furnace during tap out. Deadline 30/09/17

Review the emissions management plan for the tap out procedure and resubmit. Deadline 30/09/17

Emission Limits and Reporting

Permit section 3.1.2 Emissions to Air

Part A submitted 24/05/17 reference **EP EX 170**, Part B received 28/07/17. Breach of emission limit value for CO of [100.76mg/Nm³@8%O₂](#) dry gas against the limit of 80mg/m³. Contamination of steel slag which had not been adequately screened by the supplier to meet Knauf specification.

Compliance

E1 CCS3 emissions to air (score consolidated with E1 below)

Part A submitted 08/06/17 reference **EP EX 171** for breach of HCl emission limit value of 63.0mg/m³ +/- 9.5mg/m³ versus the emission limit of 10mg/m³. The breach of HCl is an ongoing issue and has been addressed in the permit variation as an improvement condition. Previous air dispersion modelling has demonstrated that the HCl does not have significant environmental impact. Part B submitted 28/07/17.

Part A **EX 172** 03/07/17 (17:00 hrs) – 05/07/17 (16:30hrs) The operator carried out continuous monitoring of HCl to investigate the reason for the ongoing breaches of the HCl limit and to review the impact of air abatement using lime. The maximum daily average of 61.0mg/m³ was recorded against the emission limit value of 30mg/m³. The outcome of the trial is to be reported to NRW. Part B submitted 28/07/17.

Compliance

E1 CCS3 emissions to air

Action

Submit report for HCl reduction in line with the permit variation, estimated to be 01/11/17.

3.2.1 Emissions of substances not controlled by emission limits (dust)

Knauf received dust complaints 12/06/17 and 23/06/17 from a neighbouring property on Rectors Lane. The issue was found to be stone dust from the raw materials section during a prolonged maintenance period. Affected cars were cleaned by Knauf.

Compliance

F3 CCS3 Amenity -dust

C2 CCS3 Management systems (score consolidated with other C2 breach in permit section 3.2.1)

Action

Review the fugitives emissions dust plan to ensure that it is sufficient for prolonged maintenance periods, ensure operatives follow the procedures. Date of completion 30/09/17.

3.5.1 Noise and Vibration

A noise complaint was received on 16/07/17 about night time noise. The reversing alarm on the mechanical loading vehicle was replaced in 2016 with a lower sound level alarm. Knauf are to find further information about this level. Review noise minimisation plan and ensure it is being followed (ie keep night time work to a minimum). Complainant has been advised to keep a noise log. An assessment of compliance will be taken by NRW once the information has been submitted.

4.2 Reporting

Q1 monitoring returns submitted 27/04/17 for particulate matter, oxides of nitrogen, oxides of sulphur and carbon monoxide from emission point A were within the emission limit values.

Q2 monitoring returns submitted 28/07/17, ie within time set by permit condition 4.2.3. All within the emission limit values except for CO which was reported using Part A form.

From previous Compliance Assessment Reports

Breach of SO₂ and NO_x EX 163, 164, 165, 166

In response to your email regarding the above emission limit value breaches. NRW accepts that the Part As were submitted in a timely manner. The issue is that the data should have been reviewed periodically over the 24 hours to provide an indication as to whether the daily emission limit values would potentially breach and allow Knauf to take action to prevent this from occurring. In this instance if it was noted that the values of NO_x and SO₂ were reading higher than expected then the issue with the temperature thermocouple may have been discovered earlier.

Action

Implement a system to review the data and trends to see the projected concentration and predict whether they will breach the daily average emission value. Date of completion 31/08/17.

Breaches EX 158 and EX 161

NRW placed an action on Knauf to increase the frequency of monitoring of ammonia and particulate from emission point C to provide confidence to the regulator that Knauf can meet these emission limit values. The ammonia results in particular were towards the top end of the emission limit values. Knauf have since carried out further monitoring of this emission point in which the results were comfortably within the emission limit values. NRW agrees to keep the monitoring frequency at 6 monthly.

EP EX 167

Information accepted and forwarded to Public Health Wales.

Improvement Conditions

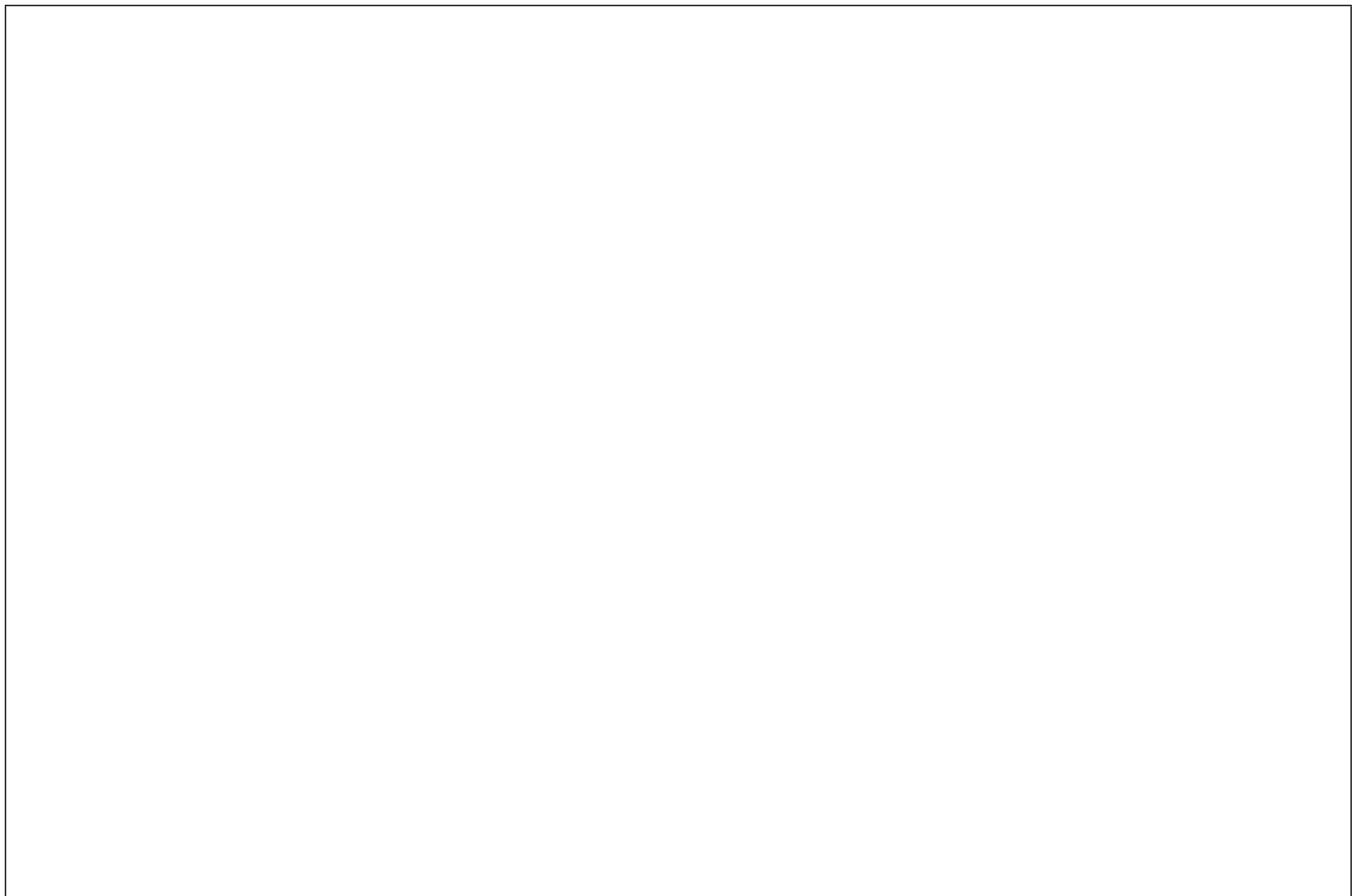
IC 32 – complete

IC 34 – complete

IC 35 – complete as now within new permit variation

IC38 – details in the new permit variation

COMAH review to be submitted by 31.07.17 (deadline extended from 30.06.17)



EPR Compliance Assessment Report

**Report ID:
CAR_NRW0031911**

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	25/05/2017

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			
E1	C3	See comments section	01/11/2017
B1	C3	See comments section	30/09/2017
E1	C3	See comments section	30/09/2017
A1	C3	See comments section	30/09/2017
C2	C3	See comments section	30/09/2017
F3	C3	See comments section	30/09/2017

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. 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.