

Schedule 5- Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	EPR/BR9383ID	Notification reference	EP_EX_337_A
Name of operator	Knauf Insulation Limited		
Location of Facility	Queensferry Mineral Fibre Works, Chemistry Lane, Queensferry, Deeside, Flintshire, CH5 2DA		
Time and date of the detection	15 to 21/09/2023		

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified Immediately	
Date and time of the event	7 days from 8 to 14 September 2023
Reference or description of the location of the event	Emission point A – cupola after oxidizer
Description of where any release into the environment took place	From Main stack via emission point A cupola after oxidizer
Substances(s) potentially released	SO2
Best estimate of the quantity or rate of release of substances	SO2 Emission rates believed to be over normal average levels of 1000-1100 mg/Nm3 dry gas, 8%O2. 15/9 1083.294 mg/Nm3* 16/9 1135.201 mg/Nm3* 17/9 1107.069 mg/Nm3* 18/9 1024.742 mg/Nm3* 19/9 1109.522 mg/Nm3 * 20/9 1087.530 mg/Nm3 21/9 1021.630 mg/Nm3 Best estimates all based on calculation with 1.0 span factor for calibrated O2 meter). This would be within permitted daily average ELV. Calculations for 15/9 through 1235 on 19/9 include Oxygen meter calibration correction based on findings reported in Notification EP_EX_336, O2 calibration too low
Measures taken, or intended to be taken, to stop any emission	None required. Measurement issue
Description of the failure or accident	Incorrect values being reported by CEMS due to 2 issues. First is incorrect span in use from O2 meter issue when QAL2 was carried out. Second is O2 meter calibration giving low readings between 14/9/23 and 19/9/23 . CEMS recorded the daily average SO2 emissions at 15/9 983.867 mg/Nm3** 16/9 1028.256 mg/Nm3** 17/9 1045.558 mg/Nm3**

	<p>18/9 1001.227 mg/Nm3** 19/9 1170.610 mg/Nm3** 20/9 1356.874 mg/Nm3 21/9 1286.634 mg/Nm3</p> <p>At reference conditions using QAL2 equation corrected O2. ** results affected by low O2 calibration 14-19/9/23. These are the QAL2 SO2 outputs from CEMS. No corrections applied either for the span correction factor or for the low O2 readings due to incorrect calibration of the O2 meter.</p> <p>The issues identified cause the ELV for SO2 to appear to be breached due to false high readings.</p> <p>When the calibration of the O2 meter is used to correct oxygen readings based from a 2.74% to 17.9% span to the usual 4% to 20.9% span the CEMS outputs would have been more in line with those reported since the QAL2 span issue was identified in mid August:</p> <p>15/9 1396.734 mg/Nm3*** 16/9 1472.525 mg/Nm3*** 17/9 1391.594 mg/Nm3*** 18/9 1335.225 mg/Nm3*** 19/9 1379.054 mg/Nm3*** 20/9 1356.874 mg/Nm3 21/9 1286.634 mg/Nm3</p> <p>*** - The QAL2 corrected outputs that would have been recorded on CEMS if the new Oxygen probe had been calibrated correctly and not reading low from 14/9 to 19/9/23</p> <p>These are the outputs that have been generating the SO2 ELV exceedances</p>
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(b) Notification requirements for the breach of a permit condition	
To be notified immediately	
Emission point reference/ source	Emission Point A Cupola after oxidizer
Parameter(s)	SO2
Limit	1350 mg/Nm3 daily average SO2 at reference conditions
Measured value and uncertainty	As reported above in (a)
Date and time of monitoring	15 to 21/09/2023
Measures taken, or intended to be taken, to stop the emission	<p>We believe that the CEMs is over correcting for Oxygen to 8% due to higher input readings from the Opsis Oxygen meter. This was identified and reported to NRW 17/08/2023 for comment /advice on proposed adjustment to QAL2 equation for Oxygen after having changed the probe and other components and recalibrating the oxygen meter with the new components installed.</p> <p>We believe that, if the calibrated oxygen reading was being used without the now incorrect QAL2 span factor the readings would be much closer to representing actual emissions. Our calculations based on the oxygen meter</p>

	<p>being correct and not requiring span adjustment and the O2 meter being correctly calibrated indicate the following SO2 daily average emissions</p> <p>15/9 1083.294 mg/Nm3 16/9 1135.201 mg/Nm3 17/9 1107.069 mg/Nm3 18/9 1024.742 mg/Nm3 19/9 1109.522 mg/Nm3 20/9 1087.530 mg/Nm3 21/9 1021.630 mg/Nm3</p> <p>MCERTS Testers have been booked to carry out a new QAL2 of the CEMS in the first week of October. The requested discussion of whether this could be brought forward had already taken place with Element. The last week of September was available but the factory has a scheduled shut down that week. Scheduled Q4 testing was put back to make Element available for the QAL2 2-4 October. We should expect regular submissions of notifications for SO2 exceedances until the new QAL2 equations can be implemented (probably in November – report takes about 4 weeks until receipt after QAL2 testing).</p>
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Time periods for notification following detection of a breach of a limit	
Parameter	Notification period


(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified immediately	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Permit Number	EPR/BR9383ID	Notification reference	EP_EX_XXX_B
Name of operator	Knauf Insulation Limited		
Location of Facility	Queensferry Mineral Fibre Works, Chemistry Lane, Queensferry, Deeside, Flintshire, CH5 2DA		
Time and date of the detection			

Any more accurate information on the matters for notification under Part A.	
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Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	21/9/21, 10/10/21, 3/11/21, 17/11/21, 9/1/22, 22/2/22, 30/4-2/5/22, 19/5/22, 20-23/6/22, 30-31/7/22, 21/9/22 5/10/22, 3-14/11/22, 12/12/22, 5-10/1/23, 6/2/23, 8/2/23, 16/2/23, 8/3/23, 9/3/23, 30/3/23, 1/4/23, 09-12/06/23, 28-31/7/23, 14-15/8/23, 17/8/23, 18/8-21/9/23, 14/9-19/9

Name*	Graham Jones
Post	Environment and Compliance Manager
Signature	
Date	22 nd September 2023

*authorised to sign on behalf of the operator