



Natural Resources Wales  
Chester Road  
Buckley  
Flintshire  
CH7 3AJ

Attention of: Berwyn Williams – Senior Officer, Industry Regulation Team North East

21<sup>st</sup> July 2021

Dear Mr Williams

**Re: Quarter 2 Monitoring Report for 2021 - Permit Number: EPR/BR9383ID/V011**

Please find enclosed the completed emissions reporting forms for the period from 1<sup>st</sup> April 2021 to 30<sup>th</sup> June 2021.

I trust this information is satisfactory, however, please do not hesitate to contact me should you require any further information.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Graham Jones', with a stylized flourish at the end.

**Graham Jones**  
***Environment Energy and Compliance Manager***

Permit Number: EPR/BR9383ID/V011

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1a

**Reporting of emissions to air for the quarter from 1<sup>st</sup> April to 30<sup>th</sup> June 2021**

**Continuous Emissions Monitoring:**

Emission Point	Substance / Parameter	Emission Limit Value	Month 1 Average of daily average values	Month 1 Maximum Daily average value	Month 2 Average of daily average values	Month 2 Maximum Daily average value	Month 3 Average of daily average values	Month 3 Maximum Daily average value
A	Particulate Matter	20 mg/m3	1.806	4.238	0.879	1.824	1.534	2.839
A	Oxides of Nitrogen (expressed as NO2)	300 mg/m3	144.14	154.26	151.43	170.18	157.97	192.20
A	Oxides of Sulphur (expressed as SO2)	1350 mg/m3	1290.03	1408.20*	1253.44	1327.19	1336.98	1528.35***
A	Carbon Monoxide	80 mg/m3	40.38	71.41	52.13	122.61**	32.39	140.50****

Note. All concentration values are in mg/N m<sup>3</sup> @ 8% O<sub>2</sub> Dry Gas.

In month 1 (April) Exceedances of the daily average ELV for SO<sub>2</sub> on 7<sup>th</sup> to 11<sup>th</sup> and 24<sup>th</sup> to 25<sup>th</sup> were reported to NRW on Notifications referenced EP\_EX\_262, 264, 265 and 267. Includes maximum \*

In month 2 (May) Exceedances of the daily average ELV for CO on 13<sup>th</sup> to 16<sup>th</sup> and 17<sup>th</sup> were reported to NRW on Notifications referenced EP\_EX\_270 and 272. Includes maximum \*\*

In month 2 (May) the Opsis AR650 analyser lazer failed resulting in false high CO readings from 22 to 26 May. This was reported on EP-EX-273.

In month 3 (June) Exceedances of the daily average ELV for SO2 on 11<sup>th</sup> and 13<sup>th</sup> then from 18<sup>th</sup> to 23<sup>rd</sup> to 25<sup>th</sup> were reported to NRW on Notifications referenced EP\_EX\_275, 277, 278, 279 and 280. Includes maximum \*\*\*

In month 3 (June) Exceedances of the daily average ELV for CO on 8<sup>th</sup> and 9<sup>th</sup> were reported to NRW on Notification referenced EP\_EX\_274. This includes maximum \*\*\*\*

In month 3 (June) a fibre optic cable to the Ophis AR600 analyser was damaged resulting in a period with no NO, NO2 and SO2 analysis affecting 17<sup>th</sup> and 18<sup>th</sup> June daily averages for SO2 and NOx. This was reported to NRW in Notification reference EP\_EX\_276

Signed ..... 

Date..... 20/7/2021

(Authorised to sign as representative of Operator)

Permit Number: EPR/BR9383ID/V011

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1h

**Reporting of emissions to air for the 3 month period for 1<sup>st</sup> April to 30<sup>th</sup> June 2021 Point A, Cupola Stack After Oxidizer**

Emission Point	Substance / Parameter	Emission Limit Value	Result 1	Sample Date and Time	Result 2	Sample Date and Time	Result 3	Sample date and Time
A	Chlorides as HCl	10 mg/m <sup>3</sup>	1.8	26/04/2021 14:22 - 14:52	2.7	26/04/2021 14:55 - 15:25	20.5	26/04/2021 15:28 - 15:58

Improving consistency of delivery of lime powder to provide chloride abatement was targeted during the second quarter

A trial with a shorter neck bulk bag proved ineffective and was not repeated

More consistent abatement was achieved by increasing the minimum speed of the lime dosing screw

Further improvement was achieved by adding a periodic vibration at the dosing unit hopper to ensure that powder sensors did not falsely indicate the presence of powder

Signed .....



Date.....15/07/2021

(Authorised to sign as representative of Operator)

Permit Number: EPR/BR9383ID/V011

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

**Reporting of emissions to air for the 6 month period 1<sup>st</sup> January to 30<sup>th</sup> June 2021 Point C, Mainline forming stack**

Emission Point	Substance / Parameter	Emission Limit Value	Result <sup>[1]</sup>	Sample Date and Times	Result <sup>[2]</sup>	Sample Date and Times	Result <sup>[3]</sup>	Sample Date and Times
C	Particulate Matter	50 mg / m3	47.3	12/04/2021 11:13 - 11:28, 11:29 - 11:44, 11:45 - 12:00, 12:01 - 12:16	11.9	12/04/2021 14:14 - 14:27, 15:12	1.9	12/04/2021 16:17 - 16:32, 16:33 - 16:48, 16:49 - 17:04, 17:05 - 17:20
C	Volatile Organic Compounds as C	30 mg / m3	16.7	12/04/2021 11:45 - 12:45	9.5	12/04/2021 15:30 - 16:00	8.4	12/04/2021 16:15 - 16:45
C	Ammonia	50 mg / m3	20.4	12/04/2021 11:13 - 11:28, 11:29 - 11:44, 11:45 - 12:00, 12:01 - 12:16	5.5	12/04/2021 14:14 - 14:27, 15:12	11.0	12/04/2021 16:17 - 16:32, 16:33 - 16:48, 16:49 - 17:04, 17:05 - 17:20
C	Formaldehyde	5 mg / m3	0.25	12/04/2021 11:50 - 12:20	0.16	12/04/2021 15:15 - 15:45	0.28	12/04/2021 15:56 - 16:26
C	Phenol	10 mg / m3	<0.52	12/04/2021 16:30 - 17:00	<0.62	12/04/2021 17:06 - 17:36	<0.52	12/04/2021 17:37 - 18:07
C	Amines	3 mg/m3	<0.16	12/04/2021 11:50 - 12:50	<0.15	12/04/2021 14:13 - 14:29, 15:15 - 16:00	<0.16	12/04/2021 16:04 - 17:04

Signed .....

(Authorised to sign as representative of Operator)



Date.....15/7/2021

Permit Number: EPR/BR9383ID/V011

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

**Reporting of emissions to air for the 3 month period for 1st April to 30th June 2021 Point G, Cooling Zone Stack**

Emission Point	Substance / Parameter	Emission Limit Value	Result 1	Sample Date and Time	Result 2	Sample Date and Time	Result 3	Sample date and Time
G	Particulate Matter	10 mg/m <sup>3</sup>	11.6	15/04/2021 09:40 - 10:00, 10:01 - 10:21	10.8	15/04/2021 10:33 - 10:53, 10:54 - 11:14	10.0	15/04/2021 11:22 - 11:42, 11:43 - 12:03
G	Ammonia	10 mg/m <sup>3</sup>	2.9	15/04/2021 09:40 - 10:00, 10:01 - 10:21	4.6	15/04/2021 10:33 - 10:53, 10:54 - 11:14	11.8	15/04/2021 11:22 - 11:42, 11:43 - 12:03

Breach of permitted ELV for particulate matter was reported in Notification EP\_EX\_269 Particulate ELV exceeded, in Stack G Q2 testing 15\_04\_21

Signed .....  
(Authorised to sign as representative of Operator)

Date.....15/07/2021

Permit Number: EPR/BR9383ID/V011

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Water1

**Reporting of emissions to water (other than to sewer) for the six months from 1<sup>st</sup> January to 30<sup>th</sup> June 2021**

Emission Point	pH	Suspended Solids mg/l	COD	Sample Date	Sample Time
L3	7.68	59.1	51.4	5/5/2021	11:10
L4	7.81	51.5	19.9	5/5/2021	10:00
L5	7.93	135	73.6	5/5/2021	09:20
L6	7.33	10.8	26.4	5/5/2021	09:40

None of the four samples had visible oil or grease present. Low levels were confirmed in analysis results.

Signed .....  
(Authorised to sign as representative of Operator)

Date.....15/7/2021