

# KNAUF INSULATION

RECEIVED  
21 FEB 2014

Natural Resources Wales  
Chester Road  
Buckley  
Flintshire  
CH7 3AJ  
Attention of: Alison Soper – Regulatory Officer PPC/RSR

21<sup>st</sup> February 2014

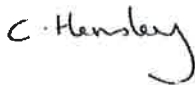
Dear Mrs Soper

**Re: Annual Monitoring Report for 2013 - Permit Number: EPR/BR9383ID/V005**

Please find enclosed the completed annual emissions reporting forms for 2013.

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

Yours sincerely



**Claire Hensley**  
**Environmental Manager**

## MONITORING RETURNS N. WALES

	INITIALS	DATE
CHECKED Vs AUTHORISATION	JS	26/2/14
TRACKING	JB	26-2-14
OK FOR PUBLIC REGISTER	AS	26/2/14
OK FOR PUBLIC REGISTER	JB	EPRM

BS EN ISO 9002:1994



EM01768 Q08947 ESRV008  
EN12162

### KNAUF INSULATION LTD.

CHEMISTRY LANE, QUEENSFERRY, FLINTSHIRE, CH5 2DB, UK.  
TEL: 01244 532001 FAX: 01244 525517  
www.knaufinsulation.co.uk

REGISTERED OFFICE: STAFFORD ROAD, ST HELENS, MERSEYSIDE, WA10 3NS, UK. REGISTERED IN ENGLAND, COMPANY NUMBER 1925842

Permit Number: EPR/BR9383ID/V005 Operator: Knauf Insulation Ltd  
 Facility: Queensferry Mineral Fibre Works Form Number: Air1b / 011208

**Reporting of emissions to air for the year 2013:**

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Result [2]		Result [3]	
			Sample Date and Times	Sample Date and Times	Sample Date and Times	Sample Date and Times		
A	Chlorides (expressed as hydrogen chloride)	10 mg / m <sup>3</sup>	19/03/2013 11:15 to 12:15	6.81	19/03/2013 12:20 to 13:36	6.25	0.424	19/03/2013 13:45 to 14:45
A	Fluorides (expressed as hydrogen fluoride)	5 mg / m <sup>3</sup>	15/04/2013 12:15 to 13:15	1.21	15/04/2013 14:05 to 15:05	2.51	0.5099	16/04/2013 10:50 to 11:50
A	Hydrogen sulphide	5 mg / m <sup>3</sup>	15/04/2013 14:06 to 15:06	1	15/04/2013 15:10 to 16:10	1.18	1.37	16/04/2013 13:33 to 14:33
A	Metals (groups 1 & 2)	5 mg / m <sup>3</sup>	20/03/2013 09:20 to 10:25	1.006	20/03/2013 10:50 to 11:55	0.901	1.421	20/03/2013 12:11 to 13:15
A	Metals (group 1)	1 mg / m <sup>3</sup>	20/03/2013 09:20 to 10:25	0.608	20/03/2013 10:50 to 11:55	0.543	0.908	20/03/2013 12:11 to 13:15
A	Dioxins	N/A	21/03/2013 09:02 to 15:52	0.00189				
A	Particulate Matter	N/A	20/03/2013 13:26 to 14:30	0.4				
A	Oxides of Nitrogen	N/A	19/03/2013 10:00 to 11:00	160.1				
A	Oxides of Sulphur	N/A	20/03/2013 13:26 to 14:30	1240				
A	Carbon Monoxide	N/A	19/03/2013 10:00 to 11:00	9.21				

Note. All results are expressed in mg/N m<sup>3</sup> @ 8% O<sub>2</sub> Dry Gas with the exception of Dioxins, which is expressed in ng/Nm<sup>3</sup> ITEQ. In accordance with Condition 3.1.4, the uncertainty error has been subtracted from the measured values, with the exception of the non-detect results, where the limit of detection for the pollutant has been recorded (this relates to substances marked with \* where applicable)

Signed ..... C. Hambley ..... Date ..... 21/02/2014  
 (Authorised to sign as representative of Operator)

Permit Number: EPR/BR93833ID/V005 Operator: Knauf Insulation Ltd  
 Facility: Queensferry Mineral Fibre Works Form Number: Air1d / 011208

**Reporting of emissions to air for the year 2013:**

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
D	Particulate Matter	N/A	1.18	05/04/2013 09:40 to 10:40	0.99	05/04/2013 10:50 to 11:50	0.37	05/04/2013 12:02 to 13:02
D	Volatile Organic Compounds as C	N/A	3.7	05/04/2013 09:40 to 10:40	3.7	05/04/2013 10:41 to 11:41	3.6	05/04/2013 11:42 to 12:42
D	Ammonia	N/A	51.1	04/04/2013 09:27 to 10:27	49.3	04/04/2013 10:28 to 11:28	79.4	04/04/2013 11:34 to 12:34
D	Formaldehyde	N/A	0.0664	04/04/2013 12:38 to 13:38	0.1018	04/04/2013 13:41 to 14:41	0.0831	04/04/2013 14:46 to 15:46
D	Phenol	N/A	0.103	04/04/2013 12:38 to 13:38	0.151	04/04/2013 13:41 to 14:41	1.66	04/04/2013 14:46 to 15:46
D	Amines	N/A	0.0276	04/04/2013 09:22 to 10:22	0.0276	04/04/2013 10:28 to 11:28	0.0276	04/04/2013 11:34 to 11:34

Note. All results are expressed in mg/N m<sup>3</sup> without correction for water vapour.

In accordance with Condition 3.1.4, the uncertainty error has been subtracted from the measured values, with the exception of the non-detect results, where the limit of detection for the pollutant has been recorded (this relates to substances marked with \* where applicable)

Signed ..... *C. Henderson* ..... Date ..... 21/02/2014  
 (Authorised to sign as representative of Operator)

Permit Number: EPR/BR9383ID/V005

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1e / 011208

### Reporting of emissions to air for the year 2013:

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
F	Particulate Matter*	10 mg / m <sup>3</sup>	1.94	23/10/2013 10:16 to 11:16	<0.49	23/10/2013 12:23 to 13:23	<0.47	23/10/2013 14:02 to 15:02
F	Volatile Organic Compounds as C	10 mg / m <sup>3</sup>	5.62	23/10/2013 12:30 to 13:30	1.937	23/10/2013 13:31 to 14:31	3.88	23/10/2013 14:32 to 15:32
F	Ammonia	10 mg / m <sup>3</sup>	1.1	23/10/2013 10:16 to 11:16	0.803	23/10/2013 12:23 to 13:23	1.09	23/10/2013 14:02 to 15:02
F	Formaldehyde*	5 mg / m <sup>3</sup>	<0.057	23/10/2013 12:28 to 13:28	<0.047	23/10/2013 14:08 to 15:08	<0.046	23/10/2013 15:37 to 16:54
F	Phenol*	5 mg / m <sup>3</sup>	<0.51	23/10/2013 12:28 to 13:28	<0.38	23/10/2013 14:08 to 15:08	<0.4	23/10/2013 15:37 to 16:54
F	Amines*	5 mg/m <sup>3</sup>	<1.1	23/10/2013 10:16 to 11:16	<1.3	23/10/2013 12:23 to 13:23	<1.2	23/10/2013 14:02 to 15:02
F	Nitrous Oxides	N/A	19.7	24/10/2013 11:17 to 12:17	16.9	24/10/2013 12:18 to 13:18	15.02	24/10/2013 13:18 to 14:18
F	Nitrogen Dioxide	N/A	3.04	24/10/2013 11:17 to 12:17	2.96	24/10/2013 12:18 to 13:18	3.14	24/10/2013 13:18 to 14:18

Note. All results are expressed in mg/N m<sup>3</sup> without correction for water vapour.

In accordance with Condition 3.1.4, the uncertainty error has been subtracted from the measured values, with the exception of the non-detect results, where the limit of detection for the pollutant has been recorded (this relates to substances marked with \* where applicable)

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

Date.....21/02/2014

Permit Number: EPR/BR9383ID/V005 Operator: Knauf Insulation Ltd  
 Facility: Queensferry Mineral Fibre Works Form Number: Air1f / 011208

**Reporting of emissions to air for the year 2013:**

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
G	Particulate Matter	10 mg / m <sup>3</sup>	11.6	24/10/2013 09:30 to 10:30	10.7	24/10/2013 10:49 to 12:28	13.3	24/10/2013 12:44 to 13:44
G	Volatile Organic Compounds as C	15 mg / m <sup>3</sup>	5.62	24/10/2013 09:30 to 10:30	5.33	24/10/2013 10:49 to 12:28	3.78	24/10/2013 12:44 to 13:44
G	Ammonia	10 mg / m <sup>3</sup>	11.9	24/10/2013 09:30 to 10:30	12.8	24/10/2013 10:49 to 12:28	11.9	24/10/2013 12:44 to 13:44
G	Formaldehyde	5 mg / m <sup>3</sup>	1.03	23/10/2013 12:14 to 13:14	1.38	23/10/2013 13:55 to 14:44	1.55	23/10/2013 15:04 to 16:04
G	Phenol*	5 mg / m <sup>3</sup>	<0.2	23/10/2013 12:14 to 13:14	<0.13	23/10/2013 13:55 to 14:55	<0.11	23/10/2013 15:04 to 16:24
G	Amines	5 mg/m <sup>3</sup>	0.53	24/10/2013 09:30 to 10:30	0.54	24/10/2013 10:49 to 12:28	0.57	24/10/2013 12:44 to 13:44

Note. All results are expressed in mg/N m<sup>3</sup> without correction for water vapour.

In accordance with Condition 3.1.4, the uncertainty error has been subtracted from the measured values, with the exception of the non-detect results, where the limit of detection for the pollutant has been recorded (this relates to substances marked with \* where applicable).

The monitoring results recorded concentrations of Particulate Matter and Ammonia in excess of the Emission Limit Values. This was reported as an un-authorised release on 20<sup>th</sup> November 2013 (Reference EP\_EX\_122).

Signed ..... *S. Hambley* ..... Date ..... 21/02/2014  
 (Authorised to sign as representative of Operator)

Permit Number: EPR/BR3383ID/V005

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: WaterUsage1b / 011208

**Reporting of Water Usage for the year 2013:**

Water Source	Usage (m <sup>3</sup> /year)
Mains water	29544
Site borehole	Nil
River abstraction	Nil
TOTAL WATER USAGE	29544

Operator's comments: The site has no source of water other than Mains Water or rainfall captured in containment areas and bunds.

Signed ..... *C. Hambley* .....

(Authorised to sign as representative of Operator)

Date.....21/02/2014

Permit Number:      **EPR/BR9383ID/V005**

Facility:              **Queensferry Mineral Fibre Works**

Operator:             **Knauf Insulation Ltd**

Form Number:        **Energy1b / 011208**

**Reporting of Energy Usage for the year 2013:**

Energy	
Primary Energy Imported MWh	
Total Energy	77154

Operator's comments:

Signed ..... *C. Hamblen* .....

(Authorised to sign as representative of Operator)

Date.....21/02/2014

Permit Number: EPR/BR9383ID/V005

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Performance1b / 011208

**Reporting of other performance indicators for the year 2013:**

Emissions to be reported in tonnes

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Oxides of Sulphur (as SO <sub>2</sub> )	6.697	4.878	4.903	7.378	6.665	7.657	2.821	5.730	5.496	6.271	5.114	3.856
Oxides of Nitrogen (as NO <sub>2</sub> )	1.782	1.284	1.356	2.067	1.996	2.082	1.191	2.078	1.961	2.009	1.805	1.228
VOC (as C)	2.002	1.531	1.534	3.772	3.845	3.958	0.745	1.838	1.778	1.857	2.251	1.610
Particulate	2.287	1.699	1.728	2.546	2.508	2.632	1.053	2.507	2.376	2.516	2.741	1.676
Carbon dioxide	1.782	1.284	1.356	2.067	1.996	2.082	1.191	2.078	1.961	2.009	1.805	1.228
Carbon monoxide	0.457	0.378	1.423	2.309	2.584	0.448	0.290	0.745	0.876	0.556	1.752	0.914
Formaldehyde	0.054	0.041	0.041	0.015	0.015	0.017	0.007	0.016	0.014	0.015	0.033	0.025
Phenol	0.030	0.023	0.023	0.104	0.106	0.109	0.043	0.109	0.106	0.110	0.097	0.075
Fluoride (as HF)	0.004	0.003	0.004	0.0111	0.0103	0.0119	0.0062	0.0114	0.0106	0.0117	0.0095	0.0082
Chloride (as HCl)	0.034	0.025	0.026	0.033	0.030	0.036	0.018	0.034	0.032	0.035	0.029	0.023
Amines	0.023	0.017	0.018	0.026	0.024	0.027	0.011	0.024	0.022	0.024	0.072	0.055
Hydrogen Sulphide	0.006	0.005	0.005	0.0088	0.0083	0.0095	0.0044	0.0091	0.0085	0.0093	0.0078	0.0058
Group 1 & 2 metals	0.002	0.001	0.001	0.007	0.007	0.008	0.004	0.008	0.007	0.008	0.007	0.005
Group 1 metals	0.001	0.001	0.001	0.0045	0.0042	0.0051	0.0024	0.0049	0.0046	0.0050	0.0041	0.0030

Signed ..... C. Hambley .....

Date.....21/02/2014

(Authorised to sign as representative of Operator)

Permit Number: EPR/BR9383ID/V005

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Performance1d / 011208

**Reporting of other performance indicators for the year 2013:**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total hours operating with by-pass stack open	0.0000	1.9128	8.8664	6.6050	5.5661	0.0000	6.7636	0.7158	0.2050	0.0000	0.9275	11.4950

Signed ..... *C. Hambley* .....

Date.....21/02/2014

(Authorised to sign as representative of Operator)

