

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

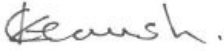
Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st January to 31st March 2019 Point A, Cupola After Oxidiser 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
A	Chlorides (expressed as hydrogen chloride)	10 mg/m ³	29.8	20/02/2019 08:54 to 09:34	42.0	20/02/2019 09:37 to 10:17	78.4	20/02/2019 10:20 to 11:00

Note: The monitoring results recorded concentrations of Hydrogen Chloride (all results) in excess of the Emission Limit Values. This was reported as an un-authorized release on 21st March 2019 (Reference EP_EX_224).

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

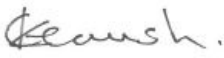
Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st April to 30th June 2019

Point A, Cupola After Oxidiser 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
A	Chlorides (expressed as hydrogen chloride)	10 mg/m ³	19.4	12/06/2019 08:59 to 09:29	2.9	12/06/2019 09:37 to 10:07	9.9	12/06/2019 10:13 to 10:43

Note: The monitoring results recorded a concentration of Hydrogen Chloride (Run 1) in excess of the Emission Limit Value. This was reported as an un-authorized release on 22nd July 2019 (Reference EP_EX_232). The average result of the three runs was 10.7 mg/m³, which is slightly in excess of the ELV.

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd


Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st July to 30th September 2019 Point A, Cupola After Oxidiser 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
A	Chlorides (expressed as hydrogen chloride)	10 mg/m ³	3.6	07/08/2019 13:18 to 14:18	10.4	07/08/2019 14:21 to 15:21	10.0	07/08/2019 15:24 to 16:24

Note: The monitoring results recorded a concentration of Hydrogen Chloride (Run 2) in excess of the Emission Limit Value; however, this was not reported as an exceedance as the average of the three tests (7.98mg/m³) was recorded below the ELV.

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010


Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st October to 31st December 2019 Point A, Cupola After Oxidiser 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
A	Chlorides (expressed as hydrogen chloride)	10 mg/m ³	0.45	11/11/2019 16:14 to 16:44	1.11	11/11/2019 17:10 to 17:50	0.93	11/11/2019 17:54 to 18:24

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1b

Reporting of emissions to air for year 2019

Point A, Cupola After Oxidiser 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
A	Fluorides (expressed as hydrogen fluoride)	5 mg/m ³	0.39	11/06/2019 17:34 to 18:04	0.46	11/06/2019 18:06 to 18:36	0.15	11/06/2019 18:38 to 19:08
A	Hydrogen sulphide	2 mg/m ³	0.74	11/06/2019 10:15 to 12:15	<0.33	11/06/2019 13:28 to 17:16	<0.32	11/06/2019 17:34 to 19:34
A	Metals (group 1)	1 mg/m ³	0.052	11/06/2019 10:40 to 11:18	0.064	11/06/2019 11:32 to 12:10	0.049	11/06/2019 13:28 to 14:05
A	Metals (group 2)	2 mg/m ³	0.075	11/06/2019 10:40 to 11:18	0.087	11/06/2019 11:32 to 12:10	0.066	11/06/2019 13:28 to 14:05

Signed 
(Authorised to sign as representative of Operator)

Date.....20/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 6 month period for 1st January to 30th June 2019 Point C, Forming 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
C	Particulate Matter	50 mg/m ³	54.6	12/06/2019 10:57 to 12:05	60.5	12/06/2019 12:25 to 13:33	62.7	12/06/2019 13:40 to 14:49
C	Volatile Organic Compounds as C	30 mg/m ³	4.3	12/06/2019 15:10 to 15:40	5.0	12/06/2019 15:42 to 16:12	7.3	12/06/2019 16:14 to 16:44
C	Ammonia	50 mg/m ³	13.1	12/06/2019 10:57 to 12:05	16.5	12/06/2019 12:25 to 13:33	15.8	12/06/2019 13:40 to 14:49
C	Formaldehyde	5 mg/m ³	0.45	12/06/2019 15:10 to 15:40	0.69	12/06/2019 15:45 to 16:15	1.1	12/06/2019 16:20 to 16:50
C	Phenol	10 mg/m ³	12.4	12/06/2019 12:35 to 13:05	13.6	12/06/2019 13:08 to 13:38	16.9	12/06/2019 13:42 to 14:12
C	Amines	3 mg/m ³	< 2.6	12/06/2019 09:25 to 10:25	< 2.7	12/06/2019 10:28 to 11:28	< 2.6	12/06/2019 11:32 to 12:32

Note: The monitoring results recorded concentrations of Particulate Matter (all results) and Phenol (all results) in excess of the Emission Limit Values. These were reported as an unauthorised releases on 22nd July 2019 (Reference EP_EX_234).

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

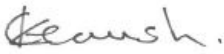
Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 6 month period for 1st July to 31st December 2019

Point C, Forming Stack

Emission Point	Substance / Parameter	Emission Limit Value	Result ^[1]	Sample Date and Times	Result ^[2]	Sample Date and Times	Result ^[3]	Sample Date and Times
C	Particulate Matter	50 mg / m ³	25.1	12/11/2019 10:37 to 11:45	22.9	12/11/2019 11:44 to 12:52	25.0	12/11/2019 12:55 to 14:00
C	Volatile Organic Compounds as C	30 mg / m ³	13.6	12/11/2019 10:29 to 10:59	14.9	12/11/2019 11:00 to 11:30	16.8	12/11/2019 11:31 to 12:31
C	Ammonia	50 mg / m ³	25.9	12/11/2019 10:37 to 11:45	30.9	12/11/2019 11:44 to 12:52	35.8	12/11/2019 12:55 to 14:00
C	Formaldehyde	5 mg / m ³	0.1	12/11/2019 14:08 to 14:38	0.2	12/11/2019 14:45 to 15:15	0.2	12/11/2019 15:20 to 15:50
C	Phenol	10 mg / m ³	3.33	12/11/2019 13:41 to 14:11	3.67	12/11/2019 14:15 to 14:45	3.98	12/11/2019 14:55 to 15:25
C	Amines	3 mg/m ³	<0.36	12/11/2019 10:29 to 11:29	<0.44	12/11/2019 11:33 to 12:33	<0.43	12/11/2019 12:38 to 13:38

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(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd


Facility: Queensferry Mineral Fibre Works

Form Number: Air1d

Reporting of emissions to air for the year 2019

Point D, Binder Fume Plant Extraction

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
D	Particulate Matter	N/A	25.1	12/11/2019 10:37 to 11:45	22.9	12/11/2019 11:44 to 12:52	25.0	12/11/2019 12:55 to 14:00
D	Volatile Organic Compounds as C	N/A	13.6	12/11/2019 10:29 to 10:59	14.9	12/11/2019 11:00 to 11:30	16.8	12/11/2019 11:31 to 12:31
D	Ammonia	N/A	25.9	12/11/2019 10:37 to 11:45	30.9	12/11/2019 11:44 to 12:52	35.8	12/11/2019 12:55 to 14:00
D	Formaldehyde	N/A	0.1	12/11/2019 14:08 to 14:38	0.2	12/11/2019 14:45 to 15:15	0.2	12/11/2019 15:20 to 15:50
D	Phenol	N/A	3.33	12/11/2019 13:41 to 14:11	3.67	12/11/2019 14:15 to 14:45	3.98	12/11/2019 14:55 to 15:25
D	Amines	N/A	<0.36	12/11/2019 10:29 to 11:29	0.44	12/11/2019 11:33 to 12:33	<0.43	12/11/2019 12:38 to 13:38

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

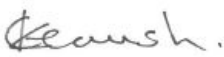
Facility: Queensferry Mineral Fibre Works

Form Number: Air1e

Reporting of emissions to air for the year 2019

Point F, Curing Oven 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
F	Particulate Matter	10 mg/m ³	5.8	13/11/2019 12:32 to 13:12	0.28	13/11/2019 13:29 to 14:09	2.9	13/11/2019 14:27 to 14:57
F	Volatile Organic Compounds as C	10 mg/m ³	7.1	13/11/2019 13:10 to 13:40	7.4	13/11/2019 13:41 to 14:11	5.1	13/11/2019 14:12 to 14:32
F	Ammonia	10 mg/m ³	3.4	13/11/2019 12:32 to 13:12	3.5	13/11/2019 13:29 to 14:09	2.6	13/11/2019 14:27 to 14:57
F	Formaldehyde	5 mg/m ³	0.07	13/11/2019 16:00 to 16:30	<0.06	13/11/2019 16:40 to 17:10	0.7	13/11/2019 17:15 to 17:45
F	Phenol	5 mg/m ³	<1.09	13/11/2019 15:21 to 16:21	<1.04	13/11/2019 16:23 to 17:23	<1.09	13/11/2019 17:24 to 18:38
F	Amines	2 mg/m ³	1.84	13/11/2019 12:15 to 13:15	<0.4	13/11/2019 13:17 to 14:17	0.48	13/11/2019 14:19 to 15:19
F	Nitrogen Dioxide	200 mg/m ³	171.6	13/11/2019 16:02 to 16:32	169.2	13/11/2019 16:33 to 17:03	167.9	13/11/2019 17:04 to 17:34

Signed 
(Authorised to sign as representative of Operator)

Date.....20/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st January to 31st March 2019 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 ³	9.9	19/2/2019 13:25 to 14:29	6.9	19/2/2019 14:34 to 15:36	7.7	19/2/2019 15:41 to 16:43
G	Ammonia	10 mg/m ³	5.6	19/2/2019 13:25 to 14:29	9.1	19/2/2019 14:34 to 15:36	13.7	19/2/2019 15:41 to 16:43

Note: The monitoring results recorded a concentration of Ammonia (Run 3) in excess of the Emission Limit Value; however, this was not reported as an exceedance as the average of the three tests (9.5mg/m³) was recorded below the ELV.

Signed *Keaush*
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

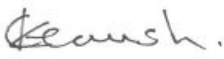
Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st April to 30th June 2019

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 ³	11.1	13/06/2019 09:10 to 10:12	12.0	13/06/2019 10:20 to 11:22	12.0	13/06/2019 11:30 to 12:32
G	Ammonia	10 mg/m ³	14.4	13/06/2019 09:10 to 10:12	16.4	13/06/2019 10:20 to 11:22	16.8	13/06/2019 11:30 to 12:32

Note: The monitoring results recorded concentrations of Particulate Matter (all results) and Ammonia (all results) in excess of the Emission Limit Values. This was reported as an unauthorised release on 22nd July 2019 (Reference EP_EX_233).

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works


Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st July to 30th September 2019

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 ³	21.3	08/08/2019 10:37 to 11:39	8.7	08/08/2019 11:40 to 12:42	8.4	08/08/2019 12:45 to 13:17
G	Ammonia	10 mg/m ³	0.4	08/08/2019 10:37 to 11:39	14.5	08/08/2019 11:40 to 12:42	23.5	08/08/2019 12:45 to 13:17

Note: The monitoring results recorded concentrations of Particulate Matter (Run 1) & Ammonia (Runs 2&3) in excess of the Emission Limit Values. These were reported as an unauthorised release on 18th September 2019 (Reference EP_EX_239).

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2019

Permit Number: EPR/BR9383ID/V010

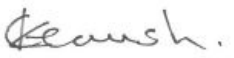
Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the 3 month period for 1st October to 31st December 2019 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 ³	7.5	12/11/2019 16:41 to 17:23	7.3	12/11/2019 17:35 to 18:18	7.7	12/11/2019 18:20 to 19:02
G	Ammonia	10 mg/m ³	2.6	12/11/2019 16:41 to 17:23	2.2	12/11/2019 17:35 to 18:18	1.8	12/11/2019 18:20 to 19:02

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

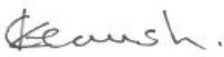
Facility: Queensferry Mineral Fibre Works

Form Number: Air1e

Reporting of emissions to air for the year 2019

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	Volatile Organic Compounds as C	15 mg/m ³	2.4	12/11/2019 16:50 to 17:20	2.1	12/11/2019 17:21 to 17:51	2.5	12/11/2019 17:52 to 18:22
G	Formaldehyde	5 mg/m ³	1.4	13/11/2019 09:15 to 09:45	1.7	13/11/2019 09:50 to 10:20	2.0	13/11/2019 10:25 to 10:55
G	Phenol	5 mg/m ³	<1.35	13/11/2019 10:09 to 10:39	<1.62	13/11/2019 10:45 to 11:15	<1.35	13/11/2019 11:15 to 11:45
G	Amines	5 mg/m ³	<0.2	12/11/2019 16:48 to 17:48	<0.19	12/11/2019 17:50 to 18:50	<0.2	13/11/2019 09:08 to 10:08

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd


Facility: Queensferry Mineral Fibre Works

Form Number: Air1c

Reporting of emissions to air for the year 2019

Point Y, Cold End Dust Extraction No.2

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
Y	Particulate Matter	10 mg/m ³	1.3	14/11/2019 09:18 to 10:00	0.68	14/11/2019 10:04 to 10:46	1.0	14/11/2019 10:46 to 11:30

Signed 
(Authorised to sign as representative of Operator)

Date.....15/01/2020

Permit Number: EPR/BR9383ID/V010

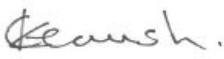
Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Water1

Reporting of emissions to water (other than to sewer) for the six months from 1st January to 30th June 2019

Emission Point	pH	Suspended Solids	COD	Sample Date	Sample Time
L3	7.28	14.3	45.4	02/05/19	09:00
L4	7.63	15.8	26.3	02/05/19	08:30
L5	7.08	64.9	85.4	17/05/19	10:00
L6	7.13	<2.0	13.7	02/05/19	10:30

Signed 
(Authorised to sign as representative of Operator)

Date.....14/01/2020

Permit Number: EPR/BR9383ID/V010

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 1st July to 31st December 2019

Emission Point	pH	Suspended Solids	COD	Sample Date	Sample Time
L3	7.49	24.3	12.4	13/11/19	13:30
L4	7.79	6.45	11.8	13/11/19	14:00
L5	7.74	80.0	33.5	13/11/19	12:25
L6	7.83	8.75	24.9	13/11/19	12:50

Signed *Keaush*
(Authorised to sign as representative of Operator)

Date.....14/01/2020

Permit Number: EPR/BR9383ID/V010

Operator: Knauf Insulation Ltd

Facility: Queensferry Mineral Fibre Works

Form Number: Water1

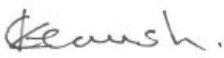
Reporting of performance indicators for the year 2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total hours operating with by-pass stack open & blast air on	0.00	0.15	0.00	0.018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Energy	Primary Energy Imported MWh
Total Energy	120508

Hydrated Lime	Usage (tonnes)
Lime	18

Water Source	Usage (m3/year)
Mains water	44,564
Other water	n/a
TOTAL WATER USAGE	44,564

Signed 
(Authorised to sign as representative of Operator)

Date.....29/01/2020