

Permit Number: BV42231E Operator: Huntsman Corporation UK Limited

Facility: Llanelli Plant Form Number: Air1

Reporting of emissions to air for the period from 1st January 2021 to 30th June 2021

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
A1	Hydrogen chloride	20 mg/m ³	Minimum 1-hour period	0.55	BS EN 1911	01 March 2021 13:36 - 14:36	0.108
A1	Hydrogen fluoride	2 mg/m ³	Minimum 1-hour period	0.02	ISO 15713	01 March 2021 16:10 - 17:10	0.018
A1	Sulphur dioxide	100 mg/m ³	Minimum 1-hour period	0.62	BS EN 14791	01 March 2021 14:50 - 15:50	0.178
A1	Cadmium & thallium and their compounds (total)	0.05 mg/m ³	over minimum 30 minute, maximum 8 hour period	0.0024	BS EN 14385	01 March 2021 08:51 - 10:55	0.0007
A1	Mercury and its compounds	0.05 mg/m ³	over minimum 30 minute, maximum 8 hour period	0.0003	BS EN 13211	01 March 2021 08:51 - 10:55	0.0004
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/ m ³	over minimum 30 minute, maximum 8 hour period	0.063	BS EN 14385	01 March 2021 08:51 - 10:55	0.005
A1	Dioxins/furans (I-TEQ)	0.1ng/m3	Over minimum 6 hour, maximum 8 hour period	0.0759	BS EN 1948 (1,2,3)	01 March 2021 09:09 - 15:25	0.0386
A1	Dioxin/furans (WHO-TEQ Humans/Mammals) ng/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0061	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.0349
A1	Dioxin/furans (WHO-TEQ Fish) ng/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0070	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.0384

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A1	Dioxin/furans (WHO-TEQ Birds)	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0091	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.0506
A1	Dioxin-like PCBs (WHO-TEQ Humans/Mammals) ng/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0002	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.0003
A1	Dioxin-like PCBs (WHO-TEQ Fish) ng/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0000	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.00001
A1	Dioxin-like PCBs (WHO-TEQ Birds) ng/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.0004	BS EN 1948/TS(part 4)	01 March 2021 09:09 - 15:25	0.0035
A1	Poly-cyclic aromatic hydrocarbons (PAHs) Total ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	1.44	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Anthranthrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[a]anthracene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[b]fluoranthene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[k]fluoranthene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[b]naph [2,1-d]thiophene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%

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A1	Benzo[c]phenanthrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[ghi]perylene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Benzo[a]pyrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Cholanthrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Chrysene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Cyclopenta[c,d]pyrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Dibenzo[ah]anthracene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Dibenzo[a]pyrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Fluoranthene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.02	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%
A1	Indo[1,2,3-cd]pyrene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	< 0.0011	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.3%

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A1	Naphthalene ug/m3	No limit set	Over minimum 6 hour, maximum 8 hour period	0.32	BS ISO 11338-1 and BS-ISO 11338-2	01 March 2021 11:05 - 17:15	30.2
A2	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³	Minimum 1 hour period	180.2	BS EN 14792	01 March 2021 09:51 - 13:51	2.1
A2	Carbon monoxide	200 mg/m ³	Minimum 1 hour period	1.18	BS EN 15058	01 March 2021 09:51 - 13:51	1.7

- 1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- 2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- 3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- 4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed Date 16-7-21.

Authorised to sign as representative of Huntsman Corporation UK Limited
representative of Huntsman Corporation UK Limited