Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: A1 **Reporting of Emissions to Air for the period from:** 01/01/2019 **to** 31/12/2019

Emission Point	Substance / Parameter	Emission Limit Value	Result	Test Method	Sample Date and Times	Accreditation / Certification	Uncertainty
A2	Oxides of Nitrogen (Gas)	150 mg/m³	---	---	---	---	---
	Oxides of Nitrogen (Kerosene)	300 mg/m³	---	---	---	---	---
A4	Oxides of Nitrogen	75 mg/m³	49.7	BS EN 14792	13/03/19 13:25 – 15:25	MCerts Lvl 2 + TE	2.7
			43.6		13/12/19 10:41 – 11:41		2.2
	Carbon Monoxide	100 mg/m³	60.3	BS EN 15058	13/03/19 13:25 – 15:25	MCerts Lvl 2 + TE	3.3
			89.5		13/12/19 10:41 – 11:41		3.6
A6	HCl	10 mg/m³	0.36	EN 1911	11/09/19 13:48 – 14:48	MCerts Lvl 2 + TE	0.02
	Chloromethane	---	889	CEN/TS 13649	13/03/19 09:40 – 10:40	MCerts Lvl 2 + TE	249
		---	4574		28/06/19 10:43 – 11:43		1295
		---	0.3		11/09/19 13:55 – 14:55		0.05
		---	0.8		16/12/19 13:48 – 14:48		0.15
A30/A16	Benzene [Day Tank]	20 g/hr	2.5	---	2018 - Calculation	N/A	N/A
	Benzene [Bulk Tank]	100 g/hr	57.2	---	2018 - Calculation	N/A	N/A
A23	Oxides of Nitrogen	200 mg/m³	---	BS EN 14792	---	MCerts Lvl 2 + TE	---
			227		21/03/18 10:10 – 12:10		14.8
	Benzene	5 mg/m³	---	CEN/TS 13649	---	MCerts Lvl 2 + TE	---
			0.23		21/03/18 10:10 – 12:10		0.05
A26	Oxides of Nitrogen	200 mg/m³	310	BS EN 14792	27/06/19 10:30 – 12:30	MCerts Lvl 2 + TE	15.1
			332		10/09/19 10:45 – 11:45		13.0
	Benzene	5 mg/m³	0.13	CEN/TS 13649	27/06/19 10:30 – 12:30	MCerts Lvl 2 + TE	0.03
			0.29		10/09/19 10:45 – 11:45		0.6
A27	Oxides of Nitrogen	200 mg/m³	314	BS EN 14792	27/06/19 13:34 – 14:34	MCerts Lvl 2 + TE	13.2
			333		10/09/19 12:44 – 13:44		22.0
	Benzene	5 mg/m³	0.18	---	27/06/19 13:34 – 14:34	MCerts Lvl 2 + TE	0.04
			0.26		10/09/19 12:44 – 13:44		0.05
A28	Oxides of Nitrogen	135 mg/m³	62.1	BS EN 14792	26/06/19 11:30 – 12:30	MCerts Lvl 2 + TE	7.6
			118.7		12/12/19 10:55 – 11:55		11.4
A29	Oxides of Nitrogen	135 mg/m³	84.6	BS EN 14792	26/06/19 11:30 – 12:30	MCerts Lvl 2 + TE	5.1
			93.2		12/12/19 12:25 – 13:25		5.1
A31	Oxides of Nitrogen	75 mg/m³	---	BS EN 14792	---	MCerts Lvl 2 + TE	---
			53.3		12/09/19 10:55 – 11:55		2.6
	Carbon Monoxide	100 mg/m³	---	BS EN 15058	---	MCerts Lvl 2 + TE	---
			79.2		12/09/19 10:55 – 11:55		3.0

Signed *: **Date:** 17/01/2020 (* authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: A2

Reporting of Annual Emissions to Air for the year: 2019

Emission Point	Substance / Parameter	Annual Limit Kgs	Result
A2-A4	Oxides of Nitrogen	20000	16544
A2-A4 [*1]	Oxides of Sulphur	6000	---
A6	Chloromethane	42000	13724
A15-17	Benzene	800	719

[*1] Effectively zero since final burning of HFO in 2012

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Date of Form: 31/03/11

Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: R1

Reporting of Waste Disposal and Recovery for the year: 2019

Waste Description	Disposal			Recovery	
	Landfill D1	Treatment D9	Incineration D10	Cemfuel® R1	Material R2,R3,R4,R5
1) Hazardous Wastes					
Named haz. Waste	---	---	---	---	---
Other hazardous wastes	---	---	---	---	---
Total hazardous waste	0	0	31.5	1935.1	13.3
2) Non-Hazardous Wastes					
Named non-haz. Waste	---	---	---	---	---
Other non-hazardous wastes	---	---	---	---	---
Total non-hazardous waste	168.2	0	0	0	142.9
TOTAL WASTE	168.2	0	31.5	1935.1	156.2

Trends in Waste Disposal and Recovery			
Year	Parameter		
	Named Waste	Total Waste	Waste per unit output
2010	778	1171	0.014
2011	1033	2104	0.022
2012	1122	2488	0.029
2013	1546	2662	0.035
2014	1106	2418	0.029
2015	1850	3019	0.034
2016	---	2148	0.026
2017	---	1563	0.018
2018	---	2068	0.021
2019	---	2291	0.022

Operator's comments:
The 'named & other' categories (greyed out above) are believed to be legacy reporting requirements, which pre-date more recent waste classifications. As such these have been omitted from this report form

Site Tonnage = 102680t

Signed *: **Date:** 17/01/2020

(* authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: WU1

Reporting of Water Usage for the year: 2019

Water Source	Usage (m^3)	Specific Usage (m^3/t)
Mains water	639368	7.20
Potable / Non-Potable	---	---
TOTAL WATER USAGE	639368	7.20

Trends in Water Usage	
Year	**Total Water Usage**
2010	1173469
2011	1166776
2012	988596
2013	1000672
2014	1032333
2015	943807
2016	782628
2017	844234
2018	878218
2019	639368

Operator's comments:

[1] Site Tonnage = 102680t

Signed *: **Date:** 17/01/2020

(* authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: E1

Reporting of Energy Usage for the year: 2019

Energy Source	Energy Usage		CO_2 Produced (tonnes)
	Delivered Energy MWh	Primary Energy (MWh)	
Electricity Imported	-9274	-22257	-3695
Site - Generated by CHP	16226	38942	---
Site - Generated by Wind Turbine	4942	4942	---
Gas	236840	236840	39315
Oil	760	760	126
TOTAL	249489	259227	35746

Trends in Energy Usage			
Year	Parameter		
	Primary Energy usage	CO_2 produced	CO_2 per tonne product output
2010	197,261	35,666	0.41
2011	212,473	41,674	0.42
2012	249,192	45,375	0.53
2013	238,099	43,267	0.56
2014	225,798	41,161	0.49
2015	217669	38998	0.44
2016	178200	36827	0.44
2017	208451	39741	0.47
2018	248922	35286	0.36
2019	249489	35746	0.35

Operator's comments:

- Conversion factor for delivered electricity to primary energy = 2.4
- CO_2 factor CO_2/MWh = 0.166
- Site Tonnage = 102680t
- There is a net export of electricity to other site tenants (hence the negative number on import)
- CHP CO2 not provided, as it is accounted for in the Gas usage
- EUETS Conversion factors used for GJ>MWh

Signed *: **Date:** 17/01/2020

(* authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Permit Reference Number: BR9715IB
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: P1

Reporting of Performance Indicators for the year: 2019

Environmental Performance Indicators

Parameter	Annual Emission	Units
Effluent COD	1766052	kg
VOCs [1]	4968	kg
Ozone Creation (POCP)	29.9	t
CHP by-pass stack usage	0	hrs
Boiler 16 aux mode	438	hrs
CHP thermal efficiency	68.5	%

Trends in Environmental Performance							
Year	Parameter						
	COD kg/t	DTA (mean NOEC)	VOCs kg/t	POCP Score	Bypass hrs	Auxiliary hrs	Efficiency CHP %
2010	8.9	19.8	<0.1	58	NA	NA	---
2011	10.2	11.8	<0.1	74	114	177	---
2012	9.1	15.8	<0.1	61	7	161	---
2013	10.5	16.1	<0.1	62	7	460	---
2014	9.0	25.9	<0.1	63	10	1608	---
2015	9.4	[2]	0.08	62	2	6688	---
2016	9.6	---	0.06	26	NA	8417	---
2017	15.1	---	0.07	31	NA	8414	---
2018	16.3	---	0.05	28	NA	1520	---
2019	17.2	---	0.05	30	NA	438	---

Operator's comments:

1. Expressed as C
2. End of monitoring campaign in 2014
3. Site Tonnage = 102680t

Signed *: **Date:** 17/01/2020

(* authorised to sign as representative of the Operator)

Date of Form: 31/03/11