

Permit Reference Number: BR97151B

Operator: Solutia UK Ltd

Installation: Newport Chemical Complex

Form Number: A1

Reporting of Emissions to Air for the period from: 01/01/2016 to 31/12/2016

Emission Point	Substance / Parameter	Emission Limit Value	Result	Test Method	Sample Date and Times	Accreditation / Certification	Uncertainty
A1	By-pass hours operated	-	---	---	---	---	---
A2	Oxides of Nitrogen (Gas)	150 mg/m ³	---	---	---	---	---
	Oxides of Nitrogen (Kerosene)	300 mg/m ³	---	---	---	---	---
A3	Oxides of Nitrogen	450 mg/m ³	N/A - Boiler 15 dismantled in 2013				
A4 ^[1]	Oxides of Nitrogen	75 mg/m ³	211	BS EN 14792	28/06/16 12:00 – 14:00	MCerts Lvl 2 + TE	15.7
		75 mg/m ³	225	BS EN 14792	14/12/16 11:05 – 13:05	MCerts Lvl 2 + TE	21.4
	Carbon Monoxide	100 mg/m ³	9.2	BS EN 15058	28/06/16 12:00 – 14:00	MCerts Lvl 2 + TE	1.6
		100 mg/m ³	14.4	BS EN 15058	14/12/16 11:05 – 13:05	MCerts Lvl 2 + TE	1.7
A6	HCl	10 mg/m ³	0.9	EN 1911	22/05/16 10:30 – 11:30	MCerts Lvl 2 + TE	5.7
	Chloromethane	---	63774	3200	07/01/16 13:00 – 16:10	In-house method	10%
		---	32.8	CEN/TS 13649	29/06/16 15:00 – 16:00	MCerts Lvl 2 + TE	9.2
		---	89.7	CEN/TS 13649	24/08/16 14:40 – 15:40	MCerts Lvl 2 + TE	25.1
		---	8046	CEN/TS 13649	15/12/16 10:15 – 11:15	MCerts Lvl 2 + TE	30.0
A12	Phenol	5 g/hr	0.18	3406	14/01/16 13:00 – 13:30	In-house method	0.02
			0.31	CEN/TS 13649	29/06/16 13:40 – 14:40	MCerts Lvl 2 + TE	0.06
			0.07	CEN/TS 13649	24/08/16 14:40 – 15:40	MCerts Lvl 2 + TE	0.01
			0.10	CEN/TS 13649	15/12/16 12:55 – 13:55	MCerts Lvl 2 + TE	0.02
	Iso Decanol	50 g/hr	0.69	3406	14/01/16 13:00 – 13:30	In-house method	0.07
			0.61	CEN/TS 13649	29/06/16 13:40 – 14:40	MCerts Lvl 2 + TE	0.12
			0.14	CEN/TS 13649	24/08/16 14:40 – 15:40	MCerts Lvl 2 + TE	0.03
			0.20	CEN/TS 13649	15/12/16 12:55 – 13:55	MCerts Lvl 2 + TE	0.04
	Iso Octanol	50 g/hr	<0.01	3406	16/03/16 14:05 – 14:22	In-house method	0.01
			0.12	CEN/TS 13649	29/06/16 12:35 – 13:35	MCerts Lvl 2 + TE	0.02
			0.02	CEN/TS 13649	24/08/16 13:25 – 14:25	MCerts Lvl 2 + TE	0.01
			0.10	CEN/TS 13649	15/12/16 11:50 – 12:50	MCerts Lvl 2 + TE	0.02
A30/A16 ^[2]	Benzene [Day Tank]	20 g/hr	2.4	---	2016 - Calculation	---	NA
	Benzene [Bulk Tank]	100 g/hr	53.2	---	2016 - Calculation	---	NA

* Other Emission Points to feature upon commissioning of TH3

^[1] Limits apply to GT operation, but non-operational post 03/15

^[2] A15 bulk storage tank not in service since 2015

Signed *:



Date: 19/01/2017

(* authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Permit Reference Number: BR97151B
Operator: Solutia UK Ltd
Installation: Newport Chemical Complex

Form Number: A2

Reporting of Annual Emissions to Air for the year: 2016

Emission Point	Substance / Parameter	Annual Limit Kgs	Result
A2-A4	Oxides of Nitrogen	20000	18358
A2-A4*	Oxides of Sulphur	6000	---
A6	Chloromethane	42000	14108
A12	Phenol	50	1.0
A15-17	Benzene	800	487

* Effectively zero since final burning of HFO in 2012

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Permit Reference Number: BR97151B

Operator: Solutia UK Ltd

Installation: Newport Chemical Complex

Form Number: R1

Reporting of Waste Disposal and Recovery for the year: 2016

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	20	320.7	1028.8	1.6
2) Non-Hazardous Wastes					
Named non-haz. Waste	---	---	---	---	---
Other non-hazardous wastes	---	---	---	---	---
Total non-hazardous waste	588.9	0	6.6	0	181.1
TOTAL WASTE	588.9	20	327.3	1028.8	182.7

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

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

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Permit Reference Number: BR97151B
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Installation: Newport Chemical Complex

Form Number: WU1

Reporting of Water Usage for the year: 2016

Water Source	Usage (m ³)	Specific Usage (m ³ /t)
Mains water	782628	9.31
Potable / Non-Potable	---	---
TOTAL WATER USAGE	782628	9.31

Trends in Water Usage	
Year	Total Water Usage
2010	1173469
2011	1166776
2012	988596
2013	1000672
2014	1032333
2015	943807
2016	782628

Operator's comments:

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Permit Reference Number: BR97151B
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 Installation: Newport Chemical Complex

Form Number: E1

Reporting of Energy Usage for the year: 2016

Energy Source	Energy Usage		CO ₂ Produced (tonnes)
	Delivered Energy MWh	Primary Energy (MWh)	
Electricity Imported ¹	12457	29897	4963
Site - Generated by CHP	---	---	---
Site - Generated by Wind Turbine	7393	7393	---
Gas	158350	158350	31864
Oil ²	0.0	0.0	0.0
TOTAL	178200	195640	36827

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

Operator's comments:

1. Conversion factor for delivered electricity to primary energy = 2.4
2. CO₂ factor for electricity = 0.166
3. Site Tonnage = 84055t

Signed *:



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Form Number: P1

Reporting of Performance Indicators for the year: 2016

Environmental Performance Indicators

Parameter	Annual Emission	Units	Trends in Environmental Performance							
			Year	Parameter						
				COD kg/t	DTA (mean NOEC)	VOCs kg/t	POCP Score	Bypass hrs	Auxiliary hrs	Efficiency CHP %
Effluent COD	812812	kg	2010	8.9	19.8	<0.1	58	NA	NA	---
VOCs ^[1]	4854	kg	2011	10.2	11.8	<0.1	74	114	177	---
Ozone Creation (POCP)	25.7	t	2012	9.1	15.8	<0.1	61	7	161	---
CHP by-pass stack usage	NA	hrs	2013	10.5	16.1	<0.1	62	7	460	---
Boiler 16 aux mode	NA	hrs	2014	9.0	25.9	<0.1	63	9.75	1608	---
CHP thermal efficiency	NA	%	2015	9.4	^[3]	0.08	62	2	6688	---
			2016	9.6	---	0.06	26	NA	8417	---

Operator's comments:

1. Expressed as C
2. GT shut down 01/04/2015, hence NA's
3. End of monitoring campaign in 2014

Total production for permitted installation (tonnes): 84055

Signed *:



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