Form Number: A1

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

Reporting of Emissions to Air for the period from ...1st January....to.....31st December 2014.....

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A1	By-pass hours operated	-	9.75	-	-	-	-
A2	Oxides of Nitrogen when firing on Gas	150 mg/m^3		-	-	-	-
A2	Oxides of Nitrogen when firing on Kerosene	300 mg/m^3		-	-	-	-
A3	Oxides of Nitrogen	450 mg/m^3		Boiler 15 dismantled in 2013. -			
A4	Oxides of Nitrogen	75 mg/m^3	60.1	BS EN 14792 : 2005	18/06/14 12:10-14:10	MCerts	4.0
		75 mg/m^3	65.6	BS EN 14792 : 2005	19/12/14 11:04-13:04	MCerts	2.9
A4	Carbon Monoxide	100 mg/m^3	48.6	BS EN 15058 : 2006	18/06/14 12:10-14:10	MCerts	1.7
		100 mg/m^3	85.0	BS EN 15058 : 2006	19/12/14 11:04-13:04	MCerts	3.8
A6	HCl	10 mg/m^3	0.04	2106	09/05/14 11:30-15:35		0.02
A6	Chloromethane	-	3465	3200	06/01/14 08:05-13:25		300
			3442	3200	09/05/14 11:30-15:35		300
			2591	3200	26/08/14 13:25-18:50		300
			3905	3200	22/09/14 08:30-12:00		400
A12	Phenol	5 g/hr	0.166	3406	06/03/14 11:07-11:23		0.012
			0.077	3406	25/06/14 09:20-09:34		0.006
			0.051	3406	12/08/14 13:11-13:40		0.004
			0.265	3406	23/10/14 08:17-08:46		0.019

A12	Iso Decanol	50 g/hr	3.040	3406	06/03/14 11:07-11:23		0.26
			2.686	3406	26/06/14 09:20-09:34		0.23
			0.595	3406	29/07/14 14:21-14:50		0.05
			1.319	3406	23/10/14 08:17-08:46		0.11
A12	Iso Octanol	50 g/hr	9.235	3406	19/03/14 13:10-13:26		0.77
			0.867	3406	09/05/14 11:02-11:16		0.07
			6.153	3406	12/08/14 13:11-13:40		0.51
			5.463	3406	10/11/14 13:06-13:32		0.45
A15	Benzene	20 g/hr	2.16	7023	Calculated		n.a.
A16	Benzene	100 g/hr	50.67	3104	11/12/14 09:20-13:20		4.05

Signed R E Chandler ..... Date ...19th January 2015.....
(authorised to sign as representative of the Operator)

Notes are on reverse of form.

Form Number: A1

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

Notes:

[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 Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. 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 accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Form Number: A2

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

Reporting of Annual Emissions to Air for the year ...2014.....

Emission Point	Substance / Parameter	Annual Limit Kgs	Result
A2-A4	Oxides of Nitrogen	20000	10846
A2-A4	Oxides of Sulphur	6000	~0*
A6**	Chloromethane	42000	19022
A12	Phenol	50	<1
A15-17	Benzene	800	380

Signed R E Chandler **.....** **Date ...19th January 2015.....**

* **Effectively zero since final burning of HFO in 2012.**
****Does not include an additional small measured amount of 465 kgs from 2 Effluent Collection Tanks.**

Form Number: R1

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

Reporting of Waste Disposal and Recovery for the year .....2014.....

Waste Description	Disposal			Recovery	
	Landfill D1	Treatment D9	Incineration D10	Cemfuel ® R1	Material R2,R3,R4,R5
1) Hazardous Wastes					
Named haz. Waste	0		0	1,004	
Other hazardous wastes		10**	17	162	4
Total hazardous waste	0	10	17	1,166	4
2) Non-Hazardous Wastes					
Named non-haz. Waste	102				
Other non-hazardous wastes	972*		1		148
Total non-hazardous waste	1074	0	1	0	148
TOTAL WASTE	1074	10	18	1,166	152

Trends in Waste Disposal and Recovery

Year	Parameter		
	Named Waste	Total Waste	Waste per unit output
2010	778	1,171	0.014
2011	1,033	2,104	0.022
2012	1,122	2,488	0.029
2013	1,546	2,662	0.035
2014	1,106	2,418	0.029

Operator's comments :
*** Inert**
****Including 8t NaSilicate**
No hazardous waste landfilled
Waste increased mainly because greater Therminol production generated more Santotar.

Signed R E. Chandler **Date...9th January 2015.....**
(authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Form Number: WU1

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

Reporting of Water Usage for the year .....2014.....

Water Source	Usage (m^3)	Specific Usage (m^3/t)
Mains water	1,032,333	12.35
Potable/Non-Potable		
TOTAL WATER USAGE	1,032,333	12.35

Trends in Water Usage	
Year	
	Total Water Usage
2010	1,173,469
2011	1,166,776
2012	988,596
2013	1,000,672
2014	1,032,333

Operator's comments :

Only mains water used.
Excludes AES.

Signed R E Chandler **.....**
(authorised to sign as representative of the Operator)

Date.....19th January 2015.....

Date of Form: 31/03/11

Form Number: E1

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

Reporting of Energy Usage for the year .....2014.....

Energy Source	Energy Usage		CO_2 Produced (tonnes)
	Delivered Energy MWh	Primary Energy (MWh)	
Electricity Imported[1]	4,978	11,948	2,149
Electricity Site Generated by CHP[4]	4,272	-	-
Electricity Site Generated By Wind Turbine	8,474	8,474	-
Gas[2]	205,366	205,366	39,009
Oil[3]	9.76	9.76	2.5
TOTAL[5]	218,828	225,798	41,161

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			

Note 1: Conversion factor for delivered electricity to primary energy = 2.597
Conversion factor for m^3 Gas used = 10.904

Operator's comments :
2 Is all gas used on site including that used in the CHP plant.
3 'Oil' is Kerosene 0.8t burned, emission factor 43.9 GJ/t.
4 Electricity Site Generated by CHP is only that fraction of CHP generated that was used on site, most of the Electricity generated was exported from site. 2014 was the 3rd full year CHP operated.
5 The amount of CHP generated electricity used on site is excluded from the total because the gas used to generate it has been included.
6 Wind Turbine power used (i.e. Generated minus consumed minus any export)

***Corrected since previous annual report (236,924 becomes 238,099, & 43,069 becomes 43,267)**

Signed R E Chandler **Date...19th January 2015.....**
(authorised to sign as representative of the Operator)

Date of Form: 31/03/11

Form Number: P1

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

Reporting of Performance Indicators for the year .....2014.....

Total production for permitted installation (tonnes) .....83,598.....

Environmental Performance Indicators

Parameter	Annual Emission	Units
Effluent COD	756,000	kg
Effluent Toxicity	25.9%	(NOEC)
VOCs *	7670	kg
Ozone Creation (POCP)	63.3	t
CHP by-pass stack usage	10	hrs
Boiler 16 auxiliary mode operation**	1608	hrs
CHP thermal efficiency	To be reported under CHP QA	%

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	n.a.	n.a	
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	9.75	1608	

Operator's comments : *Expressed as C. **'Fresh air Mode' (i.e Gas Turbine not running) includes 432 hours in July planned shutdown.

Signed R E Chandler **Date.....27th January 2015.....**
(authorised to sign as representative of the Operator)

Date of Form: 31/03/11