

Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully polymerisation plant

Form Number: Air1 17/05/2012

Reporting of emissions to air for the quarter from 01.01.2016 to 31.12.2016

Emission Point	Substance /Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A1	Butadiene	0.25 kg/hr			BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A3	Butadiene	0.1 kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A3	Acrylonitrile	0.5 kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A4	Butadiene	0.1kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A6	Acrylonitrile	0.1 kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A7	Butadiene	0.25 kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A7	Acrylonitrile	0.6 kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A11	Butadiene	0.33 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A11	Acrylonitrile	0.5 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A12	Butadiene	0.40 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		
A12	Acrylonitrile	1.25 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A16	Butadiene	0.1 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH1024		

Emission Point	Substance /Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A16	Acrylonitrile	0.1 Kg/hr	Spot sample over a one hour period		BS EN 13649:2002 with subsequent analysis to NIOSH 1604		
A17	Substance B as defined in CIC submission	As agreed in IP 7	Spot sample over a one hour period		As agreed with the Environment Agency.		
A18	Substance B as defined in CIC submission	As agreed in IP 7	Spot sample over a one hour period		As agreed with the Environment Agency.		
A19	Substance B as defined in CIC submission	As agreed in IP 7	Spot sample over a one hour period		As agreed with the Environment Agency.		
Site	Butadiene	1750kg/year	Total released annually	0 kg	As agreed with the Environment Agency.		
Site	Acrylonitrile	2500kg/year	Total released annually	0 Kg	As agreed with the Environment Agency.		

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 uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
5. Leave blank aside from final quarter report.

Signed ...James Hooper.....

Date...03/01/2017..

(Authorised to sign as representative of Zeon Chemicals Europe Ltd.)

Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully polymerisation plant

Form Number: Sewer1 17/05/2012

Reporting of emissions to sewer for the quarter from 01.10.2016 to 31.12.2016

Emission Point	Substance Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
S1	Total suspended solids	80mg/l	For 95% of all measured values of periodic samples taken over one month		BS EN 872	NA	
S1	Total suspended solids	100mg/l	Max value measured in period.		BS EN 872		
S 1	Acrylonitrile	3mg/l	For 95% of all measured values of periodic samples taken over one month		SCA blue Book method 170	NA	
S1	Acrylonitrile	5 mg/l	Max value measured in period.		SCA blue Book method 170		
S1	COD	1400 mg/l	For 95% of all measured values of periodic samples taken over one month		BS ISO 15705:2002	NA	
S1	COD	1800 mg/l	Max value measured in period.		BS ISO 15705:2002		
S1	Methanol	3 mg/l	For 95% of all measured values of periodic samples taken over one month		SCA blue Book method 170	NA	
S1	Methanol	5 mg/l	Max value measured in period.		SCA blue Book method 170		
S1	pH	10	Max value measured in period.		BS6068-2.50 or other method		
S1	pH	6	Min value measure in the period		BS6068-2.50 or other method		
S1	Acrylonitrile	542kg	Total released annually	2.6 Kg	As agreed with the Environment Agency.	NA	

Emission Point	Substance Parameter	/ Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
S1	Methanol	536kg	Total released annually	81 kg	As agreed with the Environment Agency.	NA	

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. Where the limit is expressed as the 95th percentile report the number greater than the limit and the total number of samples taken, where all the samples are less than the 95th percentile report no samples greater than the limit.
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 uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
5. Leave blank aside from final quarter report.

Signed ...[James Hooper](#).....

Date...[03/01/2017](#).....

(Authorised to sign as representative of Zeon Chemicals Europe Ltd.)

Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully Polymerisation plant

Form Number: Process Monitoring1 17/05/2012

Reporting of process monitoring for the quarter 01.10.2016 to 31.12.2016

Parameter	Units
Thermal oxidiser availability	%
Thermal oxidiser temperature	°C
Emission point A1 butadiene vented during quarter	kg
Emission point A2 butadiene vented during quarter	kg
Emission point A1 time vented during quarter	min
Emission point A2 time vented during quarter	Min

Plant shutdown at the end of 2015.

Operator's comments :

Signed ... James Hooper.....

Date...03/01/2017.....

(Authorised to sign as representative of Zeon Chemicals Europe Ltd.)

Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully Polymerisation plant

Form Number: Performance1 17/05/2012

Reporting of other performance indicators for the year

Parameter		Units
Tonnes of product	Total	30.9
	Nitrile rubber (bale form)	0
	Latex	0
	ZSC Composite	30.9
Water use/tonne of total product		1,133
Energy use/tonne of total product		171
Total waste/tonne of total product		32,341
Fugitive release of acrylonitrile		1.5
Fugitive release of butadiene		4
Total butadiene as % of product		0.01
Total acrylonitrile as % of product		0.005

Operator's comments :

1. NBR Plant shutdown at the end of 2015.
2. ZSC Plant shutdown at the end of January 2016.
3. Plant decommissioning January - March 2016. Fugitive releases estimated in this period.
4. All employees left site April 2016. Contract security presence maintained.
5. Small energy and water usage maintained throughout 2016.

SignedJames Hooper.....

Date...03/01/2017.....

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Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully Polymerisation plant

Form Number: Boundary Monitoring1 17/05/2012

Reporting of boundary monitoring for the quarter 01.01.2016 to 31.03.2016

Parameter	Monitoring Location	Result
Butadiene		
Butadiene		
Butadiene		

Plant shutdown at the end of 2015.

Operator's comments :

Signed ...James Hooper.....

Date...03/01/2017..

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Permit Number: UP3836SS

Operator: Zeon Chemicals Europe Ltd.

Installation: Sully polymerisation plant

Form Number: Ambient1 17/05/2012

Reporting of ambient monitoring of emissions to air using passive tubes for the month from to

Please submit summary of results separately on agreed format.

Operator's comments :

Plant shutdown at the end of 2015.

SignedJames Hooper.....

Date...03/01/2017.....

(Authorised to sign as representative of Zeon Chemicals Europe Ltd.)