

## BLUESCOPE STEEL (AIS) PTY. LTD. Port Kembla Steelworks

## Licence 6092

Link to Environment Protection Licence EPL6092

# LICENCE MONITORING DATA MONTHLY SUMMARY REPORT

for

## 1 Nov 2018 to 30 Nov 2018

Monthly (November 2018) Report Published: 15, January, 2019



## **Stack Air Monitoring Requirements**

EPL6092 Conditions L2.4/M2.2/M2.3/M8.2/E1.4





#### Point 107:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance yes / no) *
Arsenic	Milligrams per cubic metre	Quarterly in duplicate	1	0.00043	0.00043		no
Cadmium	Milligrams per cubic metre	Quarterly in duplicate	1	0.00031	0.00031		no
Carbon Dioxide	Percent	Quarterly in duplicate	21	4.7	6.4		no
Dioxins & Furans (15.7% Oxygen correction)	Nanograms per cubic metre	Quarterly in duplicate	1	0.0075	0.0075	0.300000	no
Dry Gas Density	Kilograms per cubic metre	Quarterly in duplicate	28	1.32	1.33		no
Hydrogen Chloride	Milligrams per cubic metre	Quarterly in duplicate	1	25	25		no
Hydrogen Fluoride	Milligrams per cubic metre	Quarterly in duplicate	1	1.4	1.4		no
Lead	Milligrams per cubic metre	Quarterly in duplicate	1	0.011	0.011		no
Manganese	Milligrams per cubic metre	Quarterly in duplicate	1	0.0022	0.0022		no
Moisture	Percent	Quarterly in duplicate	28	9.6	12		no
Molecular Weight of stack gases	grams per gram mole	Quarterly in duplicate	28	29.5	29.7		no
Nickel	Milligrams per cubic metre	Quarterly in duplicate	1	0.0003	0.0003		no
Nitrogen Oxides	Milligrams per cubic metre	Quarterly	21	211	328	2,000.00	no
Oxygen (O2)	Percent	Quarterly in duplicate	21	16	17		no
Solid Particles	Milligrams per cubic metre	Quarterly in duplicate	1	11	11	20.00	no
Sulfuric acid mist and sulphur trioxide (as SO3)	Milligrams per cubic metre	Quarterly in duplicate	1	2.2	2.2	100.00	no
Sulphur Dioxide - UV	Milligrams per cubic metre	Quarterly	21	138	306	1,000.00	no
Temperature	Degrees Celcius	Quarterly in duplicate	28	136	138		no
Velocity	Metres per second	Quarterly in duplicate	28	15	17		no
Volumetric flowrate	Cubic metres per second	Quarterly in duplicate	28	290	330		no



#### Point 113:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance( yes / no) *
Nitrogen Oxides (18% Oxygen correction)	Milligrams per cubic metre	Yearly	4	5	5	80.00	no
Comment:							

#### Point 10:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance( yes / no) *
Dry Gas Density	Kilograms per cubic metre	Quarterly	8	1.29	1.29		no
Hydrogen Sulphide	Grams per second	Quarterly	1	0.35	0.35	1.20	no
Moisture	Percent	Quarterly	8	3.8	5.3		no
Molecular Weight of stack gases	grams per gram mole	Quarterly	8	28.9	28.9		no
Temperature	Degrees Celcius	Quarterly	8	28	34		no
Velocity	Metres per second	Quarterly	8	2.4	3.5		no
Volumetric flowrate	Cubic metres per second	Quarterly	9	26	37		no
Comment:			-				



#### Point 2:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max Value
Opacity	%	Continuous	Continuous	1.0	3.6	3.5	7.6
Comment:							

#### Point 107:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max Value
Total Solid Particles	Milligrams per cubic metre	Continuous	Continuous	1.6	5.0	4.8	30.2
Comment: Elevated results associated with plant shutdown and startup							



## **Ambient Air Monitoring Requirements**

EPL6092 Condition M2.2/M2.3/O4.14,O4.15 (Cont.)



#### O4.13

Pollutant	Monitoring frequency required by licence	No of significant emissions measured during month	100 Percentile Limit	Exceedance (yes/ no) *
Emission - KISH Tipping DER 5	Monthly	0	4	no
Comment:				

#### 04.14

Pollutant	Monitoring frequency required by licence	No of significant emissions measured during month	100 Percentile Limit	Exceedance (yes/ no) *
Emission Torpedo Ladle > DER 4	Monthly	0	4	no
Comment:				



#### Point 141: Receiver 1 (located south of licensed site)

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Fine Particulates	Micrograms per cubic metre	Continuous	Continuous	10	24	19	56
Benzene	Parts per billion	Every 6 days	5	<0.01	0.0566	0.0170	0.23
Iron	Micrograms per cubic metre	Every 6 days	5	0.57	1.958	1.60	4.9
Lead	Micrograms per cubic metre	Every 6 days	5	<0.055	<0.055	0.03	<0.056
Particulates - Deposited Matter	Grams per square metre per month	Monthly	1	2.7	2.7	2.70	2.7
Polycyclic aromatic hydrocarbons	Nanograms per cubic metre	24 hour period every 6 days.	5	0.6	1.188	0.61	3.5
Total suspended particles	Micrograms per cubic metre	Every 6 days	5	23	44.4	32.00	100
Zinc	Micrograms per cubic metre	Every 6 days	5	<0.11	<0.11	0.06	0.13
Comment:							



#### Point 152: Receiver 2 (located north of licensed site)

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Fine Particulates	Micrograms per cubic metre	Continuous	Continuous	14	28	26	58
Benzene	Parts per billion	Every 6 days	5	<0.01	0.0372	0.0300	0.11
Iron	Micrograms per cubic metre	Every 6 days	5	1.3	4.76	3.60	12
Lead	Micrograms per cubic metre	Every 6 days	5	<0.055	<0.055	0.03	<0.056
Particulates - Deposited Matter	Grams per square metre per month	Monthly	1	1.8	1.8	1.80	1.8
Polycyclic aromatic hydrocarbons	Nanograms per cubic metre	24 hour period every 6 days.	5	0.61	1.442	1.30	2.2
Total suspended particles	Micrograms per cubic metre	Every 6 days	5	29	58.6	49.00	92
Zinc	Micrograms per cubic metre	Every 6 days	5	<0.11	0.215	0.19	0.48
Comment:							



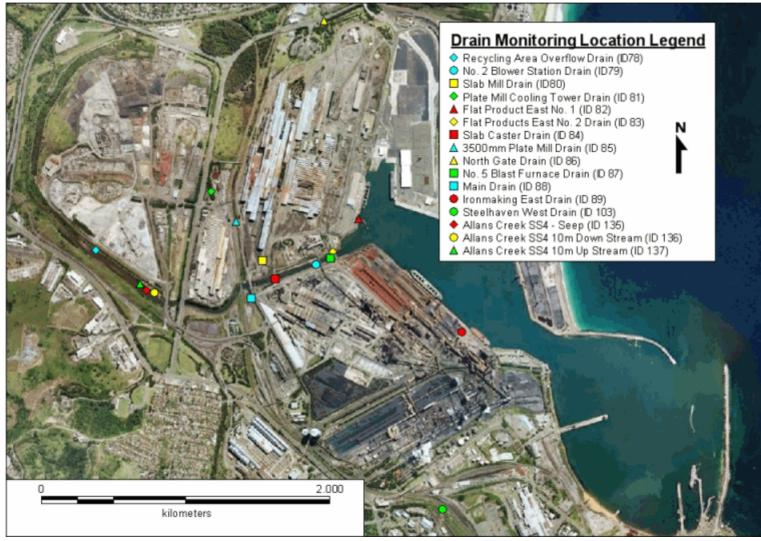
#### Point 153: Receiver 3 (located west of licensed site)

Iron Micrograms per cubic metre Lead Micrograms per cubic	Every 6 days	5	0.6	2.508	1.00	5.0
Lead Micrograms per cubic				2.000	1.80	5.6
metre	Every 6 days	5	<0.055	<0.055	0.03	<0.056
Total suspended particles Micrograms per cubic metre	Every 6 days	5	23	66.4	76.00	110
Zinc Micrograms per cubic metre	Every 6 days	5	<0.11	0.164	0.14	0.34



## Water and/or Land Monitoring Requirements

EPL6092 Condition M2.5/M2.6/M8.1/M8.3





#### Point 78:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	0	0.00	0
Comment:							

#### Point 79:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance( yes / no) *
Ammonia	Milligrams per litre	Every 8 days	4	<0.06	<0.06	5.0 (5.0)	no
Cyanide	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.30 (0.30)	no
Filtrable Iron	Milligrams per litre	Every 8 days	4	<0.01	0.01	0.3 (0.3)	no
Oil and Grease	Milligrams per litre	Every 8 days	4	<5	<5	20 (50)	no
рН		Every 8 days	4	8.1	8.2	6.5-9.0 (6.5-9.0)	no
Temperature	Degrees Celcius	Every 8 days	4	24	27	40 (40)	no
Total Iron	Milligrams per litre	Every 8 days	4	0.12	0.41	3 (50)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	4	<3	19	50 (500)	no
Total Zinc	Milligrams per litre	Every 8 days	4	<0.05	<0.05	3 (3)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	549981	788560		
Comment:		•	•	1	•	•	1



#### Point 80:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance ( yes / no) *
Cyanide	Milligrams per litre	6/yr. Min 50 days apart.	1	<0.02	<0.02	0.20 (0.00)	no
рН		6/yr. Min 50 days apart.	1	7.7	7.7	6.5-9.0 (0.0-0.0)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	453	5516		
Comment:						·	

#### Point 82:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance( yes / no) *
Cyanide	Milligrams per litre	Quarterly grab sample . Min 80 days apart	2	<0.02	0.049	0.30 (0.00)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	4056		
Comment:							



#### Point 83:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance ( yes / no) *
Cyanide	Milligrams per litre	Quarterly grab sample . Min 80 days apart	1	<0.02	<0.02	0.15 (0.00)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	1493		
Comment:							

#### Point 85:

		by licence	month			Limit	yes / no) *
Oil and Grease M	Ailligrams per litre	24/year. Min 15 days apart	2	<5	<5	20.0000	no
pH		24/year. Min 15 days apart	2	8.2	8.2	6.5-9.0	no
Temperature	Degrees Celcius	24/year. Min 15 days apart	2	17	21	35.00	no
Total Suspended Solids M	Ailligrams per litre	24/year. Min 15 days apart	2	7	16	50.00	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	34837	39181		no



#### Point 87:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance( yes / no) *
Ammonia	Milligrams per litre	Every 8 days	4	<0.06	<0.06	10.0 (10.0)	no
Cyanide	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.30 (0.30)	no
Filtrable Iron	Milligrams per litre	Every 8 days	4	<0.01	0.01	1.5 (1.5)	no
Lead	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.5 (0.5)	no
Mercury	Micrograms per litre	Every 8 days	4	<0.5	<0.5	1.5 (1.5)	no
рН		Every 8 days	4	8.1	8.2	6.5-11.0 (6.5-11.0)	no
Temperature	Degrees Celcius	Every 8 days	4	18	21	40 (40)	no
Total Iron	Milligrams per litre	Every 8 days	4	0.34	1.6	7 (100)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	4	<3	20	70 (500)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	1195	1682		



#### Point 88:

	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance( yes / no) *
Ammonia	Milligrams per litre	Every 8 days	2	<0.06	<0.06	7.5 (7.5)	no
Cyanide	Milligrams per litre	Every 8 days	2	<0.02	<0.02	0.30 (0.30)	no
Oil and Grease	Milligrams per litre	Every 8 days	2	<5	<5	20 (50)	no
рН		Every 8 days	2	8.1	8.1	6.5-9.0 (6.5-9.0)	no
Temperature	Degrees Celcius	Every 8 days	2	17	19	40 (40)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	2	6	16	100 (200)	no
Total Zinc	Milligrams per litre	Every 8 days	2	<0.05	<0.05	3 (3)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	25574	86858		

#### Point 89:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance ( yes / no) *
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	0		
Comment:							



#### Point 135:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Ammonia	Milligrams per litre	1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	<0.06	<0.06	0.0300	<0.06
рН		1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	8.2	8.2	8.20	8.2
Temperature	Degrees Celcius	1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	22	22	22.00	22
Comment:	•	•					