

ENVIRONMENTAL QUALITY PARAMETERS (OCTOBER-2014 TO MARCH-2015)

STACK EMISSION FUME TREATMENT PLANT (DRY SCRUBBERS)

Particulate Matter: Standard: 100 mg/Nm³ Total Fluoride: Standard: 0.3 Kg/MT. Al.

Location of sampling	Unit	Oct'14	Nov'14	Dec'14	Jan'15	Feb'15	Mar'15
FTP I - Stack I							
Particulate Matter	mg/Nm ³	11.12	9.33	8.93	9.42	11.08	11.20
Total Fluoride	Kg/t. Al.	0.23	0.20	0.22	0.21	0.23	0.21
FTP - I - Stack II							
Particulate Matter	mg/Nm ³	9.46	11.77	11.85	10.06	12.62	9.06
Total Fluoride	Kg/t. Al.	0.20	0.21	0.23	0.22	0.24	0.20
FTP - II - Stack - III							
Particulate Matter	mg/Nm ³	9.01	15.67	13.65	12.38	11.39	16.33
Total Fluoride	Kg/t. Al.	0.22	0.25	0.24	0.25	0.22	0.25
FTP - III- Stack - IV							
Particulate Matter	mg/Nm ³	8.22	8.58	10.34	8.44	9.71	11.31
Total Fluoride	Kg/t. Al.	0.21	0.19	0.21	0.20	0.21	0.22
FTP - IV- Stack - V							
Particulate Matter	mg/Nm ³	15.2	16.8	19.2	18.4	19.5	17.2
Total Fluoride	Kg/t. Al.	0.23	0.25	0.24	0.22	0.24	0.22

STACK EMISSION Particulate Matter: Unit: mg/Nm³

Standard: 100 mg/Nm³

Location of sampling	Oct'14	Nov'14	Dec'14	Jan'15	Feb'15	Mar'15
CAST HOUSE - I :						
Stack-5 (Furnace -A)	Shut down	Shut down	Shut down	Shut down	62.3	62.2
Stack-6 (Furnace -B)	63.8	62.7	62.5	63.7	Shut down	62.5
Stack-7 (Furnace -C)	Shut down	Shut down	Shut down	Shut down	Shut down	Shut down
CAST HOUSE - II						
Stack - 8 (Furnace-1&2)	64.3	63.9	63.7	62.5	61.4	63.8
CAST HOUSE - III						
Stack - 9 (Furnace-A&B)	65.7	65.2	65.3	64.2	64.3	62.7

FUGITIVE EMISSION Total Fluoride: Unit: Kg/MT. Al.

Standard: 0.4 kg/MT.Al.

Location of sampling	Oct'14	Nov'14	Dec'14	Jan'15	Feb'15	Mar'15
PR-I, Section XII	0.34	0.32	0.34	0.35	0.34	0.35
PR-II, Section IV	0.33	0.34	0.32	0.31	0.33	0.34
PR-III, Section V	0.34	0.35	0.36	0.33	0.30	0.32
PR-IV, Section VIII	0.31	0.32	0.33	0.34	0.32	0.30
PR-V, Section IX&X	0.35	0.33	0.30	0.32	0.31	0.33
PR-VI,RS End	0.32	0.34	0.35	0.33	0.35	0.34
PR-VII,RS End	0.33	0.31	0.33	0.34	0.36	0.35
PR -VIII,RS End	0.32	0.33	0.31	0.35	0.34	0.32
PR- IX ,RS End	0.35	0.34	0.36	0.33	0.36	0.35
PR -X , RS End	0.36	0.36	0.34	0.34	0.35	0.36
PR -XI, RS End	0.34	0.35	0.36	0.32	0.33	0.34
80-POT Area (Middle)	0.35	0.34	0.35	0.36	0.34	0.35

AMBIENT AIR SAMPLING**PARTICULATE MATTER (PM₁₀): Unit: µg/Nm³****Standard: 100 µg/Nm³**

Location of sampling	Oct'14	Nov '14	Dec'14	Jan'15	Feb'15	Mar'15
Pump House Near Adm. Building	54.26	58.99	55.29	57.30	58.66	55.70
R/S Cooling Tower MCC Room	77.68	80.09	78.69	80.90	80.90	73.86
R&D Building	49.81	53.98	52.39	53.58	52.98	50.47
Near caster Security Kiosk	83.54	85.03	85.10	86.40	85.91	85.94
Near New Security watch tower	54.67	56.24	54.98	55.80	56.73	54.51
Project office near Old Rectifier	62.32	64.21	58.78	58.88	64.64	59.44
Hindalco club	54.84	56.63	55.42	57.40	55.89	50.79

PARTICULATE MATTER (PM_{2.5}): Unit: µg/Nm³**Standard: 60 µg/Nm³**

Location of sampling	Oct'14	Nov '14	Dec'14	Jan'15	Feb'15	Mar'15
Pump House Near Adm. Building	32.24	34.60	33.13	33.80	34.08	33.30
R/S Cooling Tower MCC Room	45.37	48.21	45.93	47.20	46.24	44.48
R&D Building	29.14	32.54	31.04	31.70	32.14	30.48
Near caster Security Kiosk	48.48	51.06	46.91	50.50	50.53	51.59
Near New Security watch tower	31.93	33.88	32.44	33.70	32.99	32.69
Project office near Old Rectifier	38.36	40.58	35.29	34.88	37.84	35.84
Hindalco club	32.00	33.29	31.37	34.20	32.86	30.54

SULPHUR DI-OXIDE (SO₂): Unit: µg/Nm³**Standard: 80 µg/Nm³**

Location of sampling	Oct'14	Nov'14	Dec'14	Jan'15	Feb'15	Mar'15
Pump House Near Adm. Building	8.33	8.64	8.43	8.60	8.81	9.44
R/S Cooling Tower MCC Room	9.00	8.31	8.61	8.50	8.69	9.89
R&D Building	7.67	8.06	8.44	8.30	8.63	8.56
Near caster Security Kiosk	8.06	8.25	8.56	8.70	9.00	10.44
Near New Security watch tower	7.72	8.44	8.33	8.17	8.63	9.50
Project office near Old Rectifier	8.17	8.19	8.53	8.39	8.94	9.61
Hindalco club	8.00	8.28	7.89	8.28	8.79	9.06

NITROGEN OXIDE (NO_x): Unit: µg/Nm³**Standard: 80 µg/Nm³**

Location of sampling	Oct'14	Nov '14	Dec'14	Jan'15	Feb'15	Mar'15
Pump House Near Adm. Building	7.67	7.35	7.11	7.30	7.63	7.28
R/S Cooling Tower MCC Room	7.72	6.81	7.39	7.60	7.25	7.44
R&D Building	6.83	6.81	6.83	7.06	6.88	6.56
Near caster Security Kiosk	7.06	6.94	6.78	7.20	7.13	7.61
Near New Security watch tower	7.06	6.94	6.67	6.67	7.00	6.72
Project office near Old Rectifier	6.89	7.13	6.79	6.94	7.25	6.89
Hindalco club	6.83	6.95	6.78	6.89	7.10	6.50

CARBON MONOXIDE (CO): Unit: µg/Nm³**Standard: <1000 µg/Nm³**

Location of sampling	Oct'14	Nov '14	Dec'14	Jan'15	Feb'15	Mar'15
Pump House Near Adm. Building	154.33	157.50	154.22	156.90	158.38	156.56
R/S Cooling Tower MCC Room	169.78	161.75	168.11	168.20	165.00	163.78
R&D Building	141.56	163.50	143.56	145.00	166.13	137.67
Near caster Security Kiosk	179.89	165.00	180.44	181.20	166.63	176.56
Near New Security watch tower	150.11	166.87	151.33	151.67	166.50	148.00
Project office near Old Rectifier	163.44	163.50	164.78	163.56	165.13	159.11
Hindalco club	130.33	165.63	129.78	132.33	167.38	131.00

Note: Hydro-Carbon (HC) and Lead in all seven locations are Not Detectable (ND).**FORAGE FLUORIDE: Unit: ppm****Monthly Average Standard: 80 ppm**

Sl. No.	Location	Data					
		Oct'14	Nov '14	Dec'14	Jan '15	Feb '15	Mar '15
1	0.5 km NE	34.80	35.20	35.95	35.65	35.45	33.50
2	1.0 km NE	23.80	24.10	24.60	24.65	24.95	23.50
3	2.0 km NE	18.30	18.20	18.25	18.40	17.95	19.00
4	3.0 km NE	17.30	16.70	16.40	16.15	16.95	16.00
5	0.5 km SE	33.30	33.70	33.45	32.15	31.95	36.50
6	1.0 km SE	30.30	29.70	29.45	29.65	29.45	31.50
7	2.0 km SE	21.30	21.70	21.55	22.15	21.95	21.50
8	3.0 km SE	19.80	19.20	19.60	19.25	19.45	18.00
9	5.0 km SE	7.30	7.20	7.95	7.65	7.45	8.50
10	0.5 km NW	27.80	28.70	28.55	28.65	29.45	22.00
11	1.0 km NW	19.30	19.20	19.35	19.30	18.95	17.50
12	0.5 km SW	28.30	28.70	26.95	26.15	26.45	31.50
	Average Month	23.47	23.53	23.50	23.32	23.37	23.21

GROUND WATER ANALYSIS: Parameter: F-**Unit: mg/l**

Location of sampling	Oct'14	Nov '14	Dec'14	Jan '15	Feb '15	Mar '15
Sludge pit test well (E)	0.47	0.45	0.44	0.43	0.45	0.46
Sludge pit test well(W)	0.52	0.50	0.52	0.50	0.49	0.51
Sludge pit test well (N)	0.45	0.46	0.45	0.46	0.47	0.45
Sludge pit test well (S)	0.46	0.44	0.43	0.44	0.45	0.44
Open well near sludge pit	0.39	0.38	0.40	0.39	0.38	0.37
Tube well near sludge pit	0.30	0.29	0.28	0.29	0.30	0.31

AMBIENT NOISE QUALITY DATA:

Unit: dB (A) Leq

Sl.	Location	Category	Standard* Day / Night	Distance / Direction wrt Plant	Day Time; dB(A) Leq	Night Time; dB(A) Leq
1.	Plant Gate	Industrial	75/70	Plant Site	55.6	42.5
2.	Hindalco Colony	Residential	55/45	0.6 km / SW	49.4	41.6
3.	Tarasingpara	Residential	55/45	0.5 km / S	53.7	45.0
4.	Christianpara	Residential	55/45	0.7 km / S	58.9	50.2
5.	Alind Colony	Residential	55/45	1.3 km / NE	43.9	37.0

* Day Time : 0600 to 2200 Hrs

* Night Time : 2200 to 0600 Hrs