

ENVIRONMENTAL QUALITY PARAMETERS (OCTOBER-2012 TO MARCH-2013)

STACK EMISSION

FUME TREATMENT PLANT (DRY SCRUBBERS)

Location of sampling	Unit	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
FTP I - Stack I							
Particulate Matter	mg/Nm ³	13.42	8.64	8.27	9.60	9.95	12.45
Total Fluoride	Kg/t. Al.	0.22	0.23	0.22	0.21	0.20	0.24
FTP - I - Stack II							
Particulate Matter	mg/Nm ³	9.28	7.63	9.54	10.35	8.40	9.52
Total Fluoride	Kg/t. Al.	0.21	0.20	0.21	0.23	0.22	0.20
FTP - II - Stack - III							
Particulate Matter	mg/Nm ³	14.87	14.02	15.38	11.37	13.30	13.38
Total Fluoride	Kg/t. Al.	0.25	0.24	0.25	0.24	0.23	0.25
FTP - III- Stack - IV							
Particulate Matter	mg/Nm ³	9.45	8.21	9.25	10.74	8.18	9.98
Total Fluoride	Kg/t. Al.	0.23	0.19	0.20	0.22	0.21	0.18

STACK EMISSION

Particulate Matter :

Unit : mg/Nm³

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
CAST HOUSE - I :						
Stack-5 (Furnace -A)	61.2	58.8	58.3	59.8	59.7	59.3
Stack-6 (Furnace -B)	59.7	59.7	Shut down	60.5	58.8	Shut down
Stack-7 (Furnace -C)	Shut down	Shut down	Shut down	Shut down	Shut down	Shut down
CAST HOUSE - II						
Stack - 8 (Furnace-1&2)	62.6	62.2	60.5	61.2	61.6	60.8
CAST HOUSE - III						
Stack - 9 (Furnace-A&B)	63.8	61.4	61.5	63.3	61.1	61.7

FUGITIVE EMISSION

Total Fluoride :

Unit : Kg/t. Al.

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
PR-I, Section XII	Shut down	0.33	0.35	0.33	0.34	0.34
PR-II, Section IV	0.35	0.34	0.33	0.31	0.33	0.35
PR-IV, Section VIII	0.32	0.31	0.32	0.34	0.31	0.32
PR-VI,RS End	0.35	0.34	0.33	0.34	0.32	0.33
PR -VIII,RS End	0.36	0.35	0.34	0.29	0.30	0.34
PR- IX ,RS End	0.33	0.32	0.36	0.35	0.35	0.36
PR -X , RS End	0.35	0.36	0.35	0.36	0.34	0.35
PR -XI, RS End					0.33	0.32

AMBIENT AIR SAMPLING**PARTICULATE MATTER (PM₁₀):**Unit : ug/Nm³

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
Pump House Near Adm. Building	55.41	54.10	56.27	55.48	54.70	54.64
R/S Cooling Tower MCC Room	69.38	69.53	71.5	72.21	73.61	71.95
R&D Building	44.52	40.70	40.48	42.29	40.95	47.54
Near caster Security Kiosk	72.22	69.99	74.27	79.07	77.88	75.26
Near New Security watch tower	54.87	52.53	54.27	56.51	54.76	54.76
Project office near Old Rectifier	56.37	56.38	58.66	62.70	63.21	59.09
Hindalco club	39.90	42.23	39.63	42.27	42.83	39.40

PARTICULATE MATTER (PM_{2.5}):

Unit :

ug/Nm³

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
Pump House Near Adm. Building	33.12	32.57	34.10	33.91	32.71	32.88
R/S Cooling Tower MCC Room	41.13	41.80	42.93	44.50	44.20	43.23
R&D Building	26.16	23.91	24.49	25.40	24.66	28.51
Near caster Security Kiosk	43.23	42.07	44.27	47.22	46.74	45.01
Near New Security watch tower	32.88	31.70	32.71	34.02	33.23	32.89
Project office near Old Rectifier	33.63	34.16	35.23	37.56	38.04	31.91
Hindalco club	23.88	25.50	23.73	25.24	26.01	25.09

SULPHUR DI-OXIDE (SO₂) :Unit : ug/Nm³

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
Pump House Near Adm. Building	9.94	9.33	10.61	9.61	9.69	9.25
R/S Cooling Tower MCC Room	10.28	10.50	10.50	10.78	10.56	9.56
R&D Building	9.33	8.83	9.11	8.94	9.50	9.13
Near caster Security Kiosk	10.39	9.06	10.33	11.61	10.81	11.00
Near New Security watch tower	10.00	9.39	9.17	9.67	9.44	9.41
Project office near Old Rectifier	10.06	9.89	9.67	10.00	9.63	9.81
Hindalco club	9.22	9.44	9.28	9.28	9.56	8.75

NITROGEN OXIDE (NO_x) :Unit : ug/Nm³

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
Pump House Near Adm. Building	8.00	7.56	9.83	7.83	7.94	6.88
R/S Cooling Tower MCC Room	8.06	7.17	9.50	8.00	8.69	6.88
R&D Building	7.67	6.28	7.17	6.28	8.00	6.69
Near caster Security Kiosk	7.28	6.11	8.61	8.44	8.38	7.31
Near New Security watch tower	7.11	7.22	7.17	7.17	7.25	6.38
Project office near Old Rectifier	7.28	7.89	8.39	6.78	7.19	6.44
Hindalco club	6.78	7.17	8.11	7.22	6.69	5.26

Note : CO, Hydro-Carbon (HC) and Lead in all seven locations found <1000 ug/Nm³, Not Detectable (ND) and Not Detectable (ND) respectively.

FORAGE FLUORIDE :

Unit : ppm

Sl. No.	Location	Data					
		Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
1	0.5 km NE	34.50	35.50	36.05	36.10	35.60	32.95
2	1.0 km NE	24.00	24.50	24.05	25.10	26.10	23.95
3	2.0 km NE	19.50	21.00	21.55	21.85	21.10	20.45
4	3.0 km NE	17.00	16.50	17.05	16.60	17.10	17.95
5	0.5 km SE	33.50	31.00	32.05	31.35	31.60	35.45
6	1.0 km SE	31.50	30.00	29.55	28.60	28.10	30.45
7	2.0 km SE	21.50	20.00	19.55	19.85	20.10	20.95
8	3.0 km SE	16.00	15.50	15.05	15.10	14.60	16.95
9	5.0 km SE	7.50	7.00	7.55	7.80	7.60	8.45
10	0.5 km NW	24.50	26.00	25.05	24.85	24.10	22.95
11	1.0 km NW	20.00	21.50	22.05	21.90	20.60	19.95
12	0.5 km SW	30.00	29.00	29.05	27.60	27.10	27.45

GROUND WATER ANALYSIS : Parameter : F-

Unit : mg/l

Location of sampling	Oct'12	Nov '12	Dec'12	Jan '13	Feb '13	Mar '13
Sludge pit test well (E)	0.45	0.44	0.43	0.44	0.42	0.43
Sludge pit test well(W)	0.47	0.49	0.48	0.49	0.50	0.48
Sludge pit test well (N)	0.46	0.46	0.45	0.43	0.44	0.46
Sludge pit test well (S)	0.48	0.50	0.49	0.47	0.46	0.47
Open well near sludge pit	0.39	0.40	0.38	0.40	0.39	0.40
Tube well near sludge pit	0.30	0.29	0.28	0.27	0.28	0.27

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	57.1	48.4
2.	Hindalco Colony	Residential	55/45	0.6 km / SW	50.3	42.0
3.	Tarasingpara	Residential	55/45	0.5 km / S	56.2	49.7
4.	Christianpara	Residential	55/45	0.7 km / S	62.4	52.7
5.	Alind Colony	Residential	55/45	1.3 km / NE	46.9	39.9

* Day Time : 0600 to 2200 Hrs

* Night Time : 2200 to 0600 Hrs