

Ambiant Air Quality at Core Zone & Buffer Zone

Sr. No.	Location	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	Pb (µg/m ³)	CO (mg/m ³)
Core Zone								
1.	New AD Building	21-22.05.19	78.5	39.4	7.2	13.1	BDL	0.4
2.	Guest House. Jaduguda Colony	20-21.05.19	68.3	38.5	5.8	11.7	BDL	0.3
Buffer Zone								
3.	Chatikocha Village	21-22.05.19	91.4	53.1	8.2	15.8	BDL	0.5
4.	UCIL Barrage	20-21.05.19	72.6	39.8	6.6	12.8	BDL	0.2
National Ambient Air Quality Standard (Industrial Area/ Residential Area)			100	60	80	80	1.0	4

Note: 1. Monitoring & Analysis has done by Narayana Laboratory and Consultancy, Gorakhpur, a NABAL accredited laboratory.
2. All values are within permissible limits.

Soil Quality around in Buffer Zone

Sr. No.	Date of Sampling	Location	U (Nat) mg/kg	Ra-226 Bq/kg	Th(Total) Bq/kg	²¹⁰ Po Bq/kg
1.	12.10.19	Sahada Village	5.6	52	239	26
2.	12.10.19	Dawanki Paddy Field	5.5	36	98	63
3.	12.10.19	Birhigoda Village	4.6	67	154	85
4.	12.10.19	Bhatin Village	1.5	31	109	130
5.	12.10.19	Bhurkadih Village	1.8	28	167	178
6.	02.01.20	Rohinbeda Village	1.4	18	218	36
7.	02.01.20	Chatikocha Village	0.75	37	182	135
8.	02.01.20	Bhatin Village	4.3	32	254	102
9.	02.01.20	Mechua Village	2.3	41	125	25
10.	02.01.20	Paharkocha Village	4.4	24	160	81
11.	02.01.20	Swaspur Village	1.3	42	156	82

Note: Monitoring and analysis has done by Health Physics Unit of BARC.

Quality of Treated Effluent

Sl. No.	Parameters	Date of Sampling					Maximum Limits of discharge to Inland Water
		11.10.19	04.11.19	16.12.19	06.01.20	03.02.20	
1	pH	8	8.2	8	8.1	8	5.5 – 9.0
2	Total Suspended Solid(mg/l)	13	16	15	17	19	100
3	Total Alkalinity (mg/L)	44	44	114	66	128	-
4	COD (mg/l)	65	49	67	71	63	250
5	BOD 5 at 20°C (mg/l)	20	12	16	20	12	30
6	Oil & Grease (mg/l)	3.6	2.4	2.8	2.8	3.2	10
7	Cyanide as CN (mg/l)	0.1	0.1	0.07	0.02	0.016	0.2
8	Sulphide as S (mg/l)	0.24	0.12	0.19	0.14	0.12	2.0
9	Ammonical Nitrogen as N (mg/l)	1.50	1.8	2.1	2	1.6	50
10	Fluoride as F (mg/l)	0.20	0.17	0.16	0.12	0.14	2.0

Note: Monitoring and analysis has done by Environmental Engineering Cell of UCIL

Noise Level inside Plant Area

Sr. No.	Location	Sampling Date	Noise level in dB(A)
1.	Ground Hopper Near Ore Bin House	19.10.19	72.7
2.	Drum Filter Inside Tool Room Near Drum Filter C	19.10.19	73.5
3.	Near MRS Boundary	21.10.19	64.4
4.	Outside Old Admn. Building	21.10.19	57.2
5.	Near CISF main gate	21.10.19	67.9
6.	Outside New Admn. Building	21.10.19	56.5
7.	Near Time Office (mill)	21.10.19	68.2
8.	Near Rear gate	21.10.19	64.9
9.	Outside Pilot Plant	21.10.19	59.6
10.	Near CISF Tower (back Side of Site Office Mill)	21.10.19	66.6
11.	Near MRS Boundary	18.01.20	68.3
12.	Outside Old Admn. Building	18.01.20	60.1
13.	Near CISF main gate	18.01.20	70.2
14.	Outside New Admn. Building	18.01.20	59.4
15.	Near Time Office (mill)	18.01.20	64.6
16.	Near Rear gate	18.01.20	64.9
17.	Outside Pilot Plant	18.01.20	58.5
18.	Near CISF Tower (back Side of Site Office Mill)	18.01.20	64.7
Permissible Limit in Day Time			75

Note: Monitoring has been done by UCIL.