Acknowledgement Copy
GPCB, Gandhinagar

ADITYA BIRLA
HINDALCO

To,
The Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector -10 A
Gandhinagar - 382 010

Date: 16th September 2024

Letter No: HIL/BC/ENV/III/15178/2024-25/47

Subject: Submission of Environmental statement for the financial year 2023-24

Dear Sir,

We are submitting herewith the environmental statement for Hindalco Industries Ltd. Unit: Birla Copper for the financial year ending on 31 March 2024. This is in accordance with the provisions of rule 14 of the Environment Protection (Amendment) Rules 1993 of the Environment Protection Act 1986 published vide notification dated 22-04-93 in the Gazette of India Extra ordinary part-II, section-3 sub section (I), no.1155 dated 27-04-93 by Ministry of Environment and Forests.

Thanking you,

Yours faithfully,

For: HINDALCO INDUSTRIES LTD.
(Unit: Birla Copper, Dahej)

Sanghamitra Mishra
HOD (Environment)

Encl: as above

CC: The Regional Officer
GPCB,Bharuch-392001

26/9/24
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

ADITYA BIRLA

HINDALCO

Hindalco Industries Limited.
Unit: Birla Copper, Dahej.

ENVIRONMENT STATEMENT FOR

Year 2023-24

PO: DAHEJ, LAKHIGAM
DIST: BHARUCH - 392 130 GUJARAT, INDIA

FORM – V

(See Rule 14) *

Environmental statement for the Financial Year ending on 31st March 2024.

PART-A

(i)	**Name and address of the owner /** occupier of the industry operation of process. Address of the owner:	:	Mr. **Mr. K.N. Bhandari** Director, 5 New Powerhouse Road Sector-7 **Jodhpur-342004**
(ii)	**Industry category –** Primary – (STC Code) Secondary – (SIC Code)	:	Ours is DGTD (Director General of Trade and Development) registered company.
(iii)	**Production capacity units**	:	As below

Sr.No	Product	Production Capacity
1	Copper Cathode	5,00,000 TPA
2	Sulphuric Acid	14,70,000 TPA
3	Oxygen (Tech)	7,80,000 TPA
4	Gold	26 TPA
5	Silver	200 TPA
6	C C Rod	4,84,000 TPA
7	Phosphoric Acid	3,60,000 TPA
8	DAP / NPK fertilizer	8,72,000 TPA
9	Electric Power	145.60 MWH
10	Copper Wire (≤ 4 mm dia)	60000 TPA

(iv)	Year of establishment	:	February-1995
(v)	Date of last Environment Statement	:	19th May 2023

PART-B

Water and Raw Material Consumption:

(i)	Water consumption m^3 / day		m3/day
	Process	:	1831
	Cooling	:	15019
	Domestic	:	934

Sr No.	Name of products	Process water consumption. per unit of product output	
		During the current Financial Year 2022-23	During the current Financial Year 2023-24
1	Copper Cathode	0.684 m3/MT	0.757 m3/MT
2	Sulphuric Acid	0.074 m3/MT	0.073 m3/MT
3	Oxygen (Tech)	Nil	Nil
4	Gold/Silver	0.013 m3/MT	0.012 m3/MT
5	CC Rod	Nil	Nil
6	Phosphoric Acid	Plant shut down	Plant shut down

7	DAP/NAP Fertilizer	Plant shut down	Plant shut down
8	Electric Power	0.075 m3/MT	0.082 m3/MT
9	Copper Wire (< 4 mm dia)	Nil	Nil

(ii) Raw material consumption:

Sr.No.	Name of Raw material	Product	Consumption of Raw material In units of output (MT)	
			During the current Financial Year 2022-23	During the current Financial Year 2023-24
1	Copper Concentrate	Copper Cathode	3.02/MT	3.12/MT
2	Cathode Copper	CC Rod	1.00 MT	1.00 MT
3	Anode (DC) Slime	Gold	109.05 MT	98.30 MT
4	Anode (DC) Slime	Silver	16.79 MT	20.0 MT
5	SO_2 Gas from Smelter	Sulphuric Acid	0.653 MT	0.653 MT
6	Coal	Power Plant	0.560 MT	0.655 MT
7	Rock Phosphate	Phosphoric Acid	Plant shut down. for long term	Plant shut down. for long term
8	Sulphuric Acid	"	Nil	Nil
9	Phosphoric Acid	DAP/NPK	Plant shut down. for long term	Plant shut down. for long term
10	Ammonia	"	Nil	Nil
11	Potash	NPK	Nil	Nil
12	Aluminum Hydroxide	AlF3	Plant shut down. for long term	Plant shut down. for long term

PART-C

Pollution discharged to environmental / unit of output.
(Parameters as specified in consent issued)

(a). Water

Sr. No.	Pollutant	Qty. of pollutant discharge (mass/Day) Kg/Day	Concentration of pollutant discharge (mass/Vol.) mg/l	Percentage of variation from prescribed Std. With reason
1	pH	7.76	7.76	Nil
2	Temp	30.39	30.39	Nil
3	Color	2.77	10.26	Nil
4	Suspended Solids	5.09	18.86	Nil
5	COD	9.53	35.28	Nil
6	BOD 3 day at 27o C	2.30	8.53	Nil
7	Oil & Grease	0.00	<0.1	Nil
8	Phenolic compound	0.00	<0.1	Nil
9	Ammonical N2	2.57	9.50	Nil
10	Sulphides	0.00	<0.2	Nil
11	Cyanides	0.00	Nil	Nil
12	Fluoride	0.44	1.62	Nil
13	Hexa. Chromium	0.10	0.37	Nil
14	Total Chromium	0.12	0.45	Nil
15	Copper	0.06	0.24	Nil
16	Nickel	0.02	0.08	Nil
17	Zinc	0.07	0.25	Nil
18	Mercury	0.00	<0.005	Nil
19	Lead	0.00	<0.005	Nil
20	Arsenic	0.008	0.03	Nil
S21	Cadmium	0.00	<0.01	Nil
22	Insecticides and Pesticides	Absent	Absent	Absent
23	Selenium	0.00	<0.01	Nil
24	Bio-Assay Test	96.60	96.60	Nil

(b) Air

Sr.	Products / Stacks attached to	Quantity of pollutant discharged (In Kg/Hr)					Concentration of pollutant discharged. (In mg/Nm^3)					Percentage of variation from prescribed standard with reason
The Flue emission through stack attached to:												
Sr No.	Stack attached to	SO_2	NOx	SPM	Acid mist	F	SO_2	NOx	SPM	Acid mist	Fluo rine	
1	Dore furnace of PMR plant	1.27	4.93	0.64	--	--	211.81	62.82	76.04	--	--	NIL
2	Package boiler	--	--	--	--	--	--	--	--	--	--	Nil
3	Sulphuric Acid Pre- heater-I	3.317	9.55	1.39	--	--	199.58	57.47	83.49	--	--	NIL
4	Sulphuric Acid Pre- heater-II	--	--	--	--	--	--	--	--	--	--	Nil
5	DG Set-I	--	--	--	--	--	--	--	--	--	--	Nil
6	DG Set-II	--	--	--	--	--	--	--	--	--	--	Nil
7	CFBC of CPP I	40.88	217.0	9.37	--	--	366.51	194.5	83.98	--	--	NIL
8	Shaft furnace of CCR plant I	--	--	1.48	--	--	--	--	86.39	--	--	NIL
9	Shaft furnace of CCR plant-II	--	--	--	--	--	--	--	--	--	--	NIL
10	Sulphuric Acid Pre- heater-III	3.175	8.89	1.29	--	--	207.03	58.00	84.01	--	--	NIL
11	AFBC of CPP II	--	--	--	--	--	0.00	0.00	0.00	--	--	NIL
12	CFBC of CPP III	40.22	201.9	3.24	--	--	371.79	186.6	29.98	--	--	NIL
13	Shaft furnace of CCR plant-III	--	--	3.52	--	--	--	--	86.91	--	--	NIL
The Process emission through various stack attached to:												
1	Anode Casting	ND	ND	1.72	--	--	ND	ND	80.15	--	--	NIL
2	Main stack attached to Secondary gas Scrubber	4.60	--	--	--	--	27.35	--	--	--	--	NIL
3	Copper Scrap Melting Furnace. (Cap 50 TPD)											
4	Main stack Slag Cleaning Furnace	15.88	--	4.33	--	--	28.20	--	76.90	--	--	NIL
5	Main Stack Sulphuric Acid plant - 1	501.65	--	--	--	--	509.26	--	--	ND	--	NIL
6	Cathode Stripping M/C Plant – 1	ND	--	--	--	--	ND	--	--	--	--	NIL

Sr.	Products / Stacks attached to	Quantity of pollutant discharged (Kg/Hr)					Concentration of pollutant discharged. (mg/Nm^3)					Quantity of pollutant discharged (Kg/Hr)
Sr No.	Stack attached to	SO_2	NOx	SPM	Acid mist	F	SO_2	NOx	SPM	Acid mist	F	
7	Anode Scrap Washing M/C	0.000	--	--	--	--	0	--	--	--	--	NIL
8	Liberator Stack	0.000	--	--	--	--	0	--	--	--	--	NIL
9	Slag granulation	--	--	2.49	--	--	ND	--	74.00	--	--	NIL
10	Steam Dryer for copper concentrate	--	--	2.15	--	--	ND		77.94	--	--	NIL
11	Slag Cleaning Furnace (Bypass vent)	0.000	--	--	--	--	0	--	--	--	--	NIL
12	Cathode Stripping M/C Plant – II	0.000	--	--	--	--	0	--	--	--	--	NIL
13	Centralized Scrubbing system Cu-III	42.51	--	11.91	--	--	29.58	--	82.90	--	--	NIL
14	Sulphuric Acid plant - III	190.58	--	--	--	--	122.52	--	--	ND	--	NIL
15	Cathode Stripping M/C – Refinery-III	0.000	--	--	--	--	ND	--	--	--	--	NIL
16	Liberator Stack of Refinery-III	--	--	--	--	--	--	--	--	--	--	NIL
17	DAP	ND	ND	SPM	NH3	HF	ND	ND	SPM	NH3	HF	NIL
18	P S Converter Area (Gases are to transfer to H2 SO4 plant) only emergency vent.	0.0	----	0.0	----	--	0.0	----	0.0	----	----	NIL
19	Reactor (Phosphoric Acid Plant Fluorine)	----	----	----	----	HF	----	----	----	----	HF	NIL
20	PMR plant Phase -III	2.37	1.48	0.68	----	----	29.32	18.2	83.62	----	----	NIL

PART-D

1.Hazardous Wastes		
(a) From Process	During the current Financial Year 2022-23	During the current Financial Year 2023-24
Arsenic Bearing Sludge As-Cu precipitate (TPA)	22.82 MT	30.23 MT
Used Oil (Kl/Year)	28.99 MT	21.95 MT
Spent Electrolyte solution (Kl/Year)	45690 KL	42119 KL
Residue/ dust from SAP (TPA)	Nil	Nil
Spent catalyst (Kl/Year)	42.91 KL	87.63 KL
Used drums (No/Yr.)	49.67 MT	43.88 MT
Flue gas cleaning residue (TPA)	518 MT	481.97 MT
Spent Resin from DM plant (Kl/Yr)	4.0 KL	Nil
Selenium & Selenium compound (TPA)	Nil	Nil
Silver compound (TPA)	Nil	Nil
Inorganic acid (TPA)	Nil	Nil
Dust & Lumpy	22948 MT	29091.28 MT
Copper Converting (C-Slag)	3387 MT	9299.93 MT
Liberator cake	1678 MT	1414.97 MT
Copper Revert	53195 MT	53157.56 MT
Dore slag	1389 MT	1232.93 MT
Lead Anode/Cathode	374.99 MT	95.65 MT
Contaminated cotton rags or other cleaning materials	11.29 MT	13.61 MT
Glass-wool / Used Insulation	78.68 MT	220.56 MT
Discarded PPE(Rubber)	54.47 MT	32.81 MT
Used membrane /Filter cloth and bags	20.81 MT	49.04 MT
(b)From Pollution Control Facilities		
ETP waste sludge & Scrubber waste (TPA)	104350 MT	109793 MT
SWRO clarifier sludge	Nil	Nil
Thermal plant Evaporation sludge	Nil	1342.46 MT

PART – E

(a) From Process:

Sr No.	By product/Solid waste	Quantity generated. During the current Financial Year 2022-23	Quantity generated. During the current Financial Year 2023-24
1	Selenium	38.04 MT	32.98 MT
2	PGM concentrate	0.271 MT	0.3271 MT
3	Granulated slag	781398 MT	716738 MT
4	Phospho-gypsum	Nil	Nil
5	Hydrofluosilic acid	Nil	Nil
6	Aluminium Fluoride	Nil	Nil
7	Fly Ash	90780 MT	73756 MT

(b) From Pollution Control Facilities:

Solid waste	Quantity generated/sold. During the current Financial Year 2022-23	Quantity generated/sold. During the current Financial Year 2023-24
From Pollution Control Facilities	Nil	Nil

(c) Quantity recycled or re utilized within unit:

Solid waste	Quantity recycled or re-utilized in unit during current Financial Year 2022-23	Quantity recycled or re-utilized in unit during current Financial Year 2023-24
Spent Electrolyte solution (kl)	45690	42119
Arsenic bearing sludge, As-Cu precipitate Recycled in plant	22.813	30.230
Flue gas cleaning residue (Exhaust Air or Gas cleaning residue)	517.64	481.97
Dust & Lumpy	25644	16640.90
Copper Converting (C-Slag)	1806.86	4793.76
Liberator cake	1794	2699.25
Copper Revert	54853	54496.85
Dore Slag (Slags from copper processing for further processing or refining)	29.16	48.49

PART-F

Please specify the characterizations (in terms of concentration of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Characterizations of hazardous waste as well as solid waste and disposal practice adopted. For both these categories of wastes are mentioned below:

HAZARDOUS WASTE			Hazardous waste disposal practice adopted		
Sr. No.	**Types of waste**	**Concentration of wastes**	**Method of collection/storage & disposal of wastes**	**Precautionary measures for handling, transport, and other safety measures**	**Disposal**
1	ETP Waste sludge & Scrubber waste	CaSO4 – 80 to 85%, Moisture-30 to 40%, Cu - 0.6 to 0.8%, Zn - 0.05 to 0.07%, Fe - 0.5 to 1.5%	Dewatered ETP waste is collected in dumper from Rotary Vacuum Drum Filter and disposed off into cells of captive SLF developed within premises based on CPCB guidelines.	Manual handling of waste is avoided as it is directly loaded into Dumper from Rotary Vacuum Drum Filter in ETP, and it is hydraulically unloaded into captive Secured Landfill Facility for disposal.	Collection, Storage, Transportation and Disposal into own SLF site / common TSDF / Co-processing in authorized cement industry/ authorized pre-processing unit.
2	Arsenic bearing sludge As-Cu precipitate	Cu - 50 to 75 %, As - 5 to 7%	It is generated from Liberator section of Refinery plant. It is completely recycled to furnace of Smelter.	Manual handling / contact is avoided while handling, collected material is directly in a Boat from Liberator - III & charged into furnace of Smelter plant. Safety equipment such as helmet, gloves, etc. are provided to employees.	Collected, stored in SS drum, and recycled in our process

Sr. No.	Types of waste	Concentration of wastes	Method of collection/storage & disposal of wastes	Precautionary measures for handling, transport and other safety measures	Disposal
3	Used oil	Mainly oil & some moisture	It is generated from mechanical operations when equipment is taken for repair. Disposed off by sale to registered recyclers.	It is collected in barrels and tightly closed and stored in safe place.	Collected and stored in MS and HDPE drum, and disposed to Authorized recycler
4	Spent Electrolyte solution	Mainly Copper and other metals	Spent electrolyte liquid generated from Refineries and is completely treated in ETP of Birla Copper.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Complete treatment in ETP of Birla Copper. Collection, and transferred to ETP for treatment
5	Residue dust from SAP	Mainly Copper, Iron & acid	It is the dust / acid containing residue generated due to cleaning of Sulphuric acid plant scrubbing system, which contains Copper and Iron too. It is completely recycled into smelter plant furnace.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Complete recycle into smelter plant
6	Spent catalyst	Mainly Vanadium Pentoxide	It is a fine of catalyst generated during the annual - Sulphuric acid plant shutdown. It is completely disposed off in SLF.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site / Co-processing in authorized cement industry/ authorized Recycler or registered regenerator or authorized co-processing unit.
7	Used empty drums	Mainly de-foamer chemical	Empty used drums are cleaned and provided to register re processor. No hazardous waste is handled in drums.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collected, Stored in Hazardous yard with impervious lined structure and disposed to authorized vendors
8	Flue gas cleaning residue	Mainly Copper and Iron	Dust is collected from gaseous stream with the help of Bag filter attached to Slag cleaning furnace in closed vessel and completely recycled to Smelter.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Complete recycle into smelter plant
9	Spent resin from DM plant	Mainly resins	It is generated when resins are replaced in DM water plant, which is used for water purification. Disposed of into cells of captive SLF developed within premises based on CPCB guidelines.	It is collected in barrels and closed and stored in safe place before disposal into cell of TSDF.	Disposal into cell of captive Secured Landfill
Sr. No.	Types of solid waste	Composition of wastes (Tentative)	Method of collection/storage & disposal of wastes	Precautionary measures for handling, transport and other safety measures	Disposal

10	Selenium & selenium compounds	Mainly Selenium	Dust from furnaces is collected from gaseous stream with the help of Bag filter attached to Dore furnace of PMR plant in closed vessel and completely recycled to Smelter.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Complete recycle in plant
11	Silver compounds	Mainly Silver	Dust from furnaces is collected from gaseous stream with the help of Bag filter attached to Dore furnace of PMR plant in closed vessel and completely recycled to Smelter.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Complete recycle in PMR plant
12	In organic acid	Mainly Fluoride and silica	It is a by-product generated from fluorine recovery section from PAP plant.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	It is used to manufacture AlF3 and Sold to actual users to manufacture other Fluoride compounds.
13	Dust & Lumpy	Cu: 33-40%, As: 0.5-1.3%, Ag: 60-90 g/t, Bi: 300ppm, Pb: 0.5-1.0%	Collection, Storage, transportation and recycled in smelter or sell to recyclers	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, stored inside covered shed with impervious lined structure and recycled in process or disposed authorized recycler,
14	Copper converting slag (C slag)	Cu - 10 to 20 %, Fe - 45 to 50 % SiO2 - 0.2 to 1.0 % CaO- 10 to 20 % S - 0.5-3.0 %	Collection, Storage, transportation and recycled in smelter or sell to recyclers	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, stored inside covered shed with impervious lined structure and recycled in process or disposed authorized recycler,
15	Liberator cake	Cu: 85-95%, As: 0.30-1.0%, Au: 15-25 g/t, Ag: 280 ppm, Bi: 3000ppm, Sb: 1700ppm	Collection, Storage, transportation and recycled in smelter or sell to recyclers	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, stored inside covered shed with impervious lined structure and recycled in process or disposed authorized recycler,
16	Copper Revert	Cu - 30 to 35 %,	Collection, Storage, transportation and recycled in smelter or sell to recyclers	It is collected in barrels and closed and stored in safe place before disposal into cell of TSDF.	Collection, stored inside covered shed with impervious lined structure and recycled in process or disposed authorized recycler,

17	Dore slag	Cu – 1.0 to 2.0 %, Au – 50 to 200 ppm Ag – 0.5 to 2.0 % Bi – 2.0 to 3.0 % Pb – 20 to 30 %	Collection, Storage, transportation, and recycled process or sell to recyclers	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, stored inside covered shed with impervious lined structure and recycled in process or disposed authorized recycler,
18	Lead Anode/ Cathode	Mainly Lead	Collection, Storage, Transportation and recycle in smelter or sell to recyclers.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and recycle in smelter or send to registered recyclers.
19	Cotton waste used (Contaminated cotton rags or other cleaning materials)	Mainly used cotton rags	Collection, Storage, Transportation and Disposal to CHWIF.	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site / Co-processing in authorized cement industry/CHWIF
20	Used Insulation	Mainly used insulation waste	Collection, Storage, Transportation and Disposal in furnace or into own SLF site / common TSDF of BEIL	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site / authorized incinerator/ Co-processing in authorized cement industries.
21	Discarded PPE (Rubber)	Mainly used PPE	Collection, Storage, Transportation and Disposal in furnace or into own SLF site / common TSDF of BEIL	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site / Co-processing in authorized cement industry/ authorized Recycler.
22	Used membrane/ Filter cloth and bags	Mainly used filter cloth/ membrane	Collection, Storage, Transportation and Disposal in furnace or into own SLF site / common TSDF of BEIL	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site / Co-processing in authorized cement industry/CHWIF
23	SW-RO Clarifier Sludge	From Tertiary water recycling unit	Collection, Storage, Transportation and Disposal into own SLF site or approved common TSDF	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site or approved common TSDF
24	Thermal Plant Evaporation Sludge	Fromm Tertiary water recycling unit	Collection, Storage, Transportation and Disposal into own SLF site or approved common TSDF	Safety equipment such as helmet, gloves, etc. is provided to employees working in the area.	Collection, Storage, Transportation and Disposal into own SLF site or approved common TSDF

PART-F

DETAILS OF REVENUE EXPENDITURE FOR ENVIRONMENT PROTECTION MEASURES AT HINDALCO INDUSTRIES LTD., UNIT: BIRLA COPPER, DAHEJ

Sr.	Details	Expenditure (in Lacs. Rs.) for period of April-22 to Mar-23	Expenditure (in Lacs. Rs.) for period of April-23 to Mar-24
1	Effluent Treatment Plant (main)		
	(a) Chemical Consumption	3713.9	3049.93
	(b) Repair and Maintenance	166.31	80.86
	(c) Electrical Cost	5.89	81.85
	(d) Secured land fill facility	181.23	1225.95
	(e) ETP Waste handling and compaction	300.83	253.76
2	Solid Waste Management		
	(a) Gypsum handling & compaction	614.12	739.83
	(b) Slag & ash handling		
3	Sulphuric Acid Plants		
	(a) Consumption of chemical, fuel, etc.	5934.1	5103.83
	(b) Repair and Maintenance	363.64	933.3
	(c) Electrical Cost	26.41	24.88
4	Environmental Monitoring and Studies	66.72	320.39
5	Smelter, Refinery & PMR plant		
	(a) Bag filter replacement	107.95	16.86
	(b) Scrubber operation	1184.41	859.08
	(c) ESP operation		
	(d) Bag filter, Scrubber & ESP Smelter-3	43.40	874.22
	(e) PMR plant	30	35
6	Phosphoric Acid Plant & DAP plant		
	(a) Scrubbing system operation	Nil	Shut down for long term
7	Captive Power Plants		
	(a) ESP, I D fan & Ash handling operation	716.3	989.05
8	Horticulture / green belt work	123.31	114.92
	Total	13578.52	14703.71

PART – H

Additional measures / investment proposal for environmental protection including abatement of pollution.
Impact of the pollution control measures taken for the existing plants operations of environmental control units such as Effluent Treatment Plant, Sewage Treatment Plant, Scrubbers, Electrostatic Precipitators (ESP's), Bag filters, etc. were continued efficiently throughout the year with a view to meet the norms specified by GPCB. We are in process for upgradation of Smelter-1 & PMR plant Scrubbers as an additional measure.
Birla Copper has been accredited Industry is accredited with ISO: 9001:2015 for its Quality Management System, ISO: 14000:2015 for its Environmental Management System and ISO: 45001:2018 for Occupational Health and Safety.
Online Continuous Emission Monitoring Station ,61 OCEMS ,4 CAAQMS and Treated Effluent online monitoring station installed.

PART – I

Any other particular in respect of environmental protection and Abatement of pollution.
1. Tertiary water recycling unit: TWRU involves a range of advanced wastewater treatment technologies to recycle recovery and re-use of the 'treated' wastewater and thereby ensure there is no discharge of wastewater to the environment. The project of TWRU commissioned and is in operation.
2. Structural up liftment is carried out in Smelter-I, Smelter-III, SAP-I and SAP-III, such as coloring to the structure of plant and strengthening the plant to avoid corrosion.
3. Revamping of Secondary Gas Scrubber of Smelter-1. The objective of the proposal is to improve environmental performance by bringing down the emission level of secondary off gases, by revamping Secondary Gas Scrubber of Smelter-1 plant.
4. Pneumatic system for lime dosing at our ETP Plant is installed. It has eliminated current manual lime dosing practice and help in to control fugitive emission, dust spillages and eliminate waste generation of Plastic Bags
5. Reliable and sustainable system for segregation of process and storm water drain.
6. Venturi and caustic (NaOH) based scrubber technology has been considered for installation in PMR plant.
7. Installation of Tail Gas Scrubber in Sulphuric Acid Plant-I.
8. Installation of Bag filter at transfer points, Coal yard and Captive power plant.
9. Installation of wind screen all around peripheral of Coal Yard.
10. Installed Tail Gas Scrubber in Sulphuric Acid Plant-3 for better control of SO2 emission.
11. ETP Gypsum is sent for co processing to cement industry, a step towards Zero waste to landfill.
12. 11000 plants were planted at 16 ha area of plant, which has increased green belt area of plant by 7 ha.
13. To mark the celebration of World Environment Day, we had competitions for kids and spouses at township for drawing competition and best out of waste competition. Online quiz competition was conducted by employee. A plantation program was organized at Birla Copper, to bring environmental awareness among the employees.

Date: 16th September 2024
Place: Dahej

Yours Faithfully
For: Hindalco Industries Ltd.
Unit: Birla Copper, Dahej

Sanghamitra Mishra
HOD (Environment)