



Letter No: HIL/BC/ENV/III/15178/2026-27/038

Date: 17th July 2026

PCB ID: 15178

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

Sub. Submission of Environmental Statement Report for the Financial Year 2025-26 of M/s. Hindalco Industries Ltd, Unit: Birla Copper, Dahej- GIDC, At post. Lakhigam, Dahej-392130 Tal-Vagra, Dist.- Bharuch.

Ref: 1. Consent under section 25 of the Water (Prevention and control of pollution) Act, 1974, under section 21 of the Air (Prevention and control of pollution) Act, 1981 and authorization under rule 6(2) of the hazardous & other wastes (management and transboundary movement) Rule - 2016 framed under E(P) Act 1986 CC&A No: GPCB/BRCH/CCA-310(26)/ID-15178/897498/Dt 27/03/2026, specific condition no.3.19.

2. Environment Clearance F. No. J-11011/927/2008-IA II (I) dated 23rd February, 2017, general condition (B) -xiii.

Dear Sir,

With reference to subject, please find enclosed the Environmental Statement Report in the prescribed format (Form - V) for the Financial Year 2025 -26 of **M/s Hindalco Industries Limited, Unit: Birla Copper, Dahej GIDC, At post. Lakhigam, Dahej-392130 Tal-Vagra, Dist.- Bharuch.**

Receipt of the statement may kindly be acknowledged please.

Thanking you,

Yours faithfully,
For Hindalco Industries Limited
Unit: Birla Copper, Dahej


Krishnaraju Kumaravel
(President & COO)

Encl: Environment Statement, Form-V (FY 2025-26)

- CC:** 1. Regional Officer, Gujarat Pollution control board, Bharuch 392001
2. Member Secretary, CPCB Parivesh Bhawan, East Arjun Nagar Delhi - 110032
3. Regional Director CPCB, Zonal office, Parivesh Bhawan, Atmajyoti Ashram Road, Opp. VMC office ward no.10 Subhanpura Vadodara-Gujarat-390023
4. The Director (Monitoring Cell), Ministry of Environment, Forest & Climate Change, IPB, Aliganj, Jorbagh Road, New Delhi - 110003
5. The Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) "KARMAYOGI BHAWAN" Block no -3, F-2 Wing Fifth Floor Near CH-3 circle, Sector-10A, Gandhi Nagar-382010

HINDALCO INDUSTRIES LIMITED

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Corporate Identity No. L27020MH1958PLC011238

FORM – V
(See Rule 14) *

Environmental statement for the Financial Year ending on 31st March 2026.

PART-A

(i)	Name and address of the owner / occupier of the industry operation of process. Address of the owner:	:	Mr. K.N. Bhandari Director, 5 New Powerhouse Road Sector-7 Jodhpur-342004
(ii)	Industry category – Primary – (STC Code) Secondary – (STC Code)	:	Ours is DGTD (Director General of Trade and Development) registered company.
(iii)	Production capacity units	:	As below
(iv)	Year of establishment	:	31 st March 1997
(v)	Date of last Environment Statement	:	23rd Sept 2025

Sr. No	Product	Production Capacity
1	Copper Cathode	5,00,000 TPA
2	Sulphuric Acid	14,28,000 TPA
3	Oxygen (Tech)	7,80,000 TPA
4	Gold	26 TPA
5	Silver	200 TPA
6	C C Rod	3,64,000 TPA
7	Phosphoric Acid	Nil
8	DAP / NPK fertilizer	Nil
9	Electric Power	130 MW
10	Copper Wire (≤ 4 mm dia)	60000 TPA

PART-B

Water and Raw Material Consumption:

(i)	Water consumption		m3/day
	Process	:	2125
	Cooling	:	16757
	Domestic	:	917

(ii) Raw material consumption:

Sr No.	Name of products	Process water consumption. per unit of product output	
		During the previous Financial Year 2024-25	During the current Financial Year 2025-26
1	Copper Cathode	0.646 m3/MT	0.698 m3/MT
2	Sulphuric Acid	0.088 m3/MT	0.0769 m3/MT
3	Oxygen (Tech)	Nil	Nil
4	Gold/Silver	0.010 m3/MT	0.008 m3/MT
5	CC Rod	Nil	Nil
6	Phosphoric Acid	Plant not in operation	Plant not in operation
7	DAP/NAP Fertilizer	Plant not in operation	Plant not in operation
8	Electric Power	0.077 m3/MWh	0.0766 m3/MWh
9	Copper Wire (< 4 mm dia)	Nil	Nil

Sr. No	Name of Raw material	Name of Product	Consumption of Raw material In units of output (MT)	
			During the previous Financial Year 2024-25	During the current Financial Year 2025-26
1	Copper Concentrate	Copper Cathode	2.81/MT	3.02/MT
2	Cathode Copper	CC Rod	1.00 MT	1.00 MT
3	Anode (DC) Slime	Gold	112.72 MT	153.32 MT
4	Anode (DC) Slime	Silver	18.10 MT	15.74 MT
5	SO ₂ Gas from Smelter	Sulphuric Acid	0.653 MT	0.653 MT
6	Coal	Power Plant	0.548 MT	0.584 MT
7	Rock Phosphate	Phosphoric Acid	Plant not in operation	Plant not in operation
8	Sulphuric Acid	"	Nil	Nil
9	Phosphoric Acid	DAP/NPK	Plant not in operation	Plant not in operation
10	Ammonia	"	Plant not in operation	Plant not in operation
11	Potash	NPK	Plant not in operation	Plant not in operation
12	Aluminum Hydroxide	AlF ₃	Plant not in operation	Plant not in operation

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	7.85	7.85	Nil
2	Temperature °C	30.7	30.7	Nil
3	Color(Hazen)	---	10.36	Nil
4	Suspended Solids	2.51	19.33	Nil
5	COD	4.54	34.92	Nil
6	BOD (3 days at 27° C)	1.04	7.96	Nil
7	Oil & Grease	0.00	<0.1	Nil
8	Phenolic compound	0.00	<0.1	Nil
9	Ammonical N ₂	1.34	10.31	Nil
10	Sulphides	0.00	<0.2	Nil
11	Cyanides	0.00	Nil	Nil
12	Fluoride	0.27	2.05	Nil
13	Hexa. Chromium	0.05	0.37	Nil

14	Total Chromium	0.07	0.51	Nil
15	Copper	0.04	0.27	Nil
16	Nickel	0.01	0.08	Nil
17	Zinc	0.04	0.28	Nil
18	Mercury	0.00	<0.005	Nil
19	Lead	0.00	<0.005	Nil
20	Arsenic	0.005	0.04	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	96.69	96.69	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
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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 (Furnace TROF) (0.0547 TPH)	1.116	2.69	0.53	--	--	165.89	40.00	78.91	--	--	NIL
2	Package boiler	--	--	--	--	--	--	--	--	--	--	Nil
3	Sulphuric Acid Pre-heater-I (80 TPH)	3.274	8.53	1.60	--	--	177.13	46.16	86.41	--	--	NIL
4	Sulphuric Acid Pre- heater-II	--	--	--	--	--	--	--	--	--	--	Nil
5	DG Set-2.0 MW	--	--	--	--	--	--	--	--	--	--	Nil
6	DG Set-2.5 MW	--	--	--	--	--	--	--	--	--	--	Nil
7	Captive Power Plant (CPP-I) CFBC Boiler 35 MW (150 TPH)	38.25	20.2	9.43	--	--	332.74	176.1	82.07	--	--	NIL
8	Shaft Furnace of CCR Plant-I (18 TPH)	--	--	1.58	--	--	--	--	86.38	--	--	NIL
9	Shaft furnace of CCR plant-II	--	--	--	--	--	--	--	--	--	--	NIL
10	Sulphuric Acid Pre-heater-III (148 TPH)	2.85	0.65	1.28	--	--	181.13	41.00	81.33	--	--	NIL
11	AFBC of CPP II (Removed)	--	--	--	--	--	0.00	0.00	0.00	--	--	NIL
12	Captive Power Plant (CPP-III)	34.16	16.0	3.69	--	--	321.98	150.9	34.76	--	--	NIL

	CFBC Boiler 60 MW (300 TPH)											
13	Shaft Furnace of CCR-III (35 TPH)	--	--	3.30	--	--	--	--	82.81	--	--	NIL
The Process emission through various stack attached to:												
1	Anode Casting of Smelter-I (Anode Caster) (60 TPH)	ND	ND	1.80	--	--	ND	ND	81.62	--	--	NIL
2	Main Stack Secondary Gas Scrubber of Smelter-I (FSF-SCF-PSC Conv.) (72 TPH)	5.28	--	--	--	--	29.79	--	--	--	--	NIL
3	Copper Scrap melting furnace (Cap. 50 MT/day) of Smelter-I (72 TPH)											
4	Main Stack Slag Cleaning furnace of Smelter-I (25 TPH)	2.09	--	5.57	--	--	31.11	--	83.05	--	--	NIL
5	Main stack Sulphuric Acid Plant-I (80 TPH)	60.06	--	--	--	--	575.63	--	--	ND	--	NIL
6	Cathode Stripping M/C Plant – 1	ND	--	--	--	--	ND	--	--	--	--	NIL
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	NO _x	SPM	Acid mist	F	SO ₂	NO _x	SPM	Acid mist	F	
7	Anode Scrap Washing Machine M/C -I of Refinery-I (29 TPH)	0.000	--	--	--	--	0	--	--	--	--	NIL
8	Liberator Stack of Refinery-I (29 TPH)	0.000	--	--	--	--	0	--	--	--	--	NIL
9	Slag Granulation of Smelter-I (25 TPH)	--	--	3.72	--	--	ND	--	80.96	--	--	NIL
10	Steam Dryer of copper concentrate of Smelter-I (120 TPH)	--	--	2.55	--	--	ND	--	73.20	--	--	NIL
11	Slag Cleaning Furnace (Bypass vent Smelter-I) (25 TPH)	0.000	--	--	--	--	0	--	--	--	--	Emergency stack
12	Cathode Stripping M/C Plant-II of Refinery-II (29 TPH)	0.000	--	--	--	--	0	--	--	--	--	Plant not in operation

13	Centralized Scrubbing System Smelter-III (112 TPH)	4.87	--	12.73	--	--	28.87	--	75.46	--	--	NIL
14	Sulphuric Acid Plant-III (148 TPH)(TGS)	39.67	--	--	--	--	306.02	--	--	ND	--	NIL
15	Cathode Stripping M/C Plant-III of Refinery-III (29 TPH)	0.000	--	--	--	--	ND	--	---	--	--	NIL
16	Liberator Stack of Refinery-III (29 TPH)	---	--	---	--	--	--	--	--	--	--	NIL
17	DAP (REMOVED)	ND	ND	SPM	NH3	HF	ND	ND	SPM	NH3	HF	Plant not in operation
18	PS Converter area (Gases are to be transferred to H2SO4 plant) only emergency vent (23 TPH)	0.0	---	0.0	---	---	0.0	---	0.0	---	---	NIL
19	Reactor (Phosphoric Acid Plant Fluorine) (REMOVED)	---	---	---	---	HF	---	---	---	---	HF	Plant not in operation
20	PMR plant Phase -III	0.16	0.09	0.44	---	---	28.13	16	80.02	---	---	NIL

PART-D
HAZARDOUS WASTE
(As specified under Hazardous Waste (Management & Handling) Rules 2016)

1.Hazardous Wastes	Total Quantity (MT)	
(a) From Process	During the previous Financial Year 2024-25	During the current Financial Year 2025-26
Arsenic Bearing Sludge As-Cu precipitate (TPA)	Nil	Nil
Used Oil (KI/Year)	39.03 MT	42.74 MT
Spent Electrolyte solution (KI/Year)	45042 KL	48001 KL
Residue/ dust from SAP (TPA)	Nil	Nil
Spent catalyst (KI/Year)	119.81 KL	43.74 KL
Used drums (No/Yr.)	47.35 MT	42.12 MT
Flue gas cleaning residue (TPA)	578.05 MT	571.00 MT
Spent Resin from DM plant (KI/Yr)	7.4 KL	Nil
Selenium & Selenium compound (TPA) (Removed)	Nil	Nil
Silver compound (TPA)	Nil	Nil

Inorganic acid (TPA) (Removed)	Nil	Nil
Dust & Lumpy	25672.28 MT	17868.38 MT
Copper Converting (C-Slag)	9173.57 MT	5635 MT
Liberator cake	1244.28 MT	887 MT
Copper Revert	56386.22 MT	58538 MT
Dore slag	1354.808 MT	1723 MT
Lead Anode/Cathode	Nil	Nil
Contaminated cotton rags or other cleaning materials	13.24 MT	16.58 MT
Glass-wool / Used Insulation	247.85 MT	60.78 MT
Discarded PPE(Rubber)	11.83 MT	6.65 MT
Used membrane /Filter cloth and bags	35.03 MT	53.2 MT
(b)From Pollution Control Facilities		
ETP waste sludge & Scrubber waste (TPA)	95562 MT	94192 MT
SWRO clarifier sludge	2316 MT	1398 MT
Thermal plant Evaporation sludge	3918 MT	1981 MT

PART – E
SOLID WASTE

(a) From Process:

Sr No.	By product/Solid waste	Total quantity (MT)	
		Quantity generated. During the Financial Year 2024-25	Quantity generated. During the current Financial Year 2025-26
1	Selenium	39.900 MT	43.20 MT
2	PGM concentrate	0.302 MT	0.376 MT
3	Granulated slag	708772 MT	766897 MT
4	Phospho-gypsum	Nil	Nil
5	Hydrofluosilic acid	Nil	Nil
6	Aluminium Fluoride	Nil	Nil
7	Fly Ash	84820 MT	94154 MT

(b) From Pollution Control Facilities:

Solid waste	Quantity generated During the previous Financial Year 2024-25	Quantity generated During the current Financial Year 2025-26
From Pollution Control Facilities	Nil	Nil

(c) (1). Quantity recycled or re utilized within the unit:

Solid waste	Quantity recycled or re-utilized within the unit during the previous Financial Year 2024-25	Quantity recycled or re-utilized within the unit during the current Financial Year 2025-26
Spent Electrolyte solution (kl)	45042 KL	48001 KL
Arsenic bearing sludge, As-Cu precipitate Recycled in plant	Nil	Nil
Flue gas cleaning residue (Exhaust Air or Gas cleaning residue)	578.05 MT	571.0 MT
Dust & Lumpy	25552.42 MT	18753 MT

Copper Converting (C-Slag)	13443.93 MT	950 MT
Liberator cake	2298.23 MT	798 MT
Copper Revert	56087.35 MT	58786 MT
Dore Slag (Slags from copper processing for further processing or refining)	50.92 MT	57.0 MT

(c) (2). Sold:

Solid waste	Quantity generated During the previous Financial Year 2024-25	Quantity generated During the current Financial Year 2025-26
Copper Slag	784645 MT	969091 MT

(c) (3). Disposed:

Solid waste	Quantity generated During the previous Financial Year 2024-25	Quantity generated During the current Financial Year 2025-26
Fly Ash	84820 MT	94154 MT

PART-F

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

HAZARDOUS WASTE			Hazardous waste disposal practice adopted		
Sr. No.	Types of waste	Concentration of wastes (as per FY 26 3 rd party analysis) ppm	Method of collection/storage & disposal of wastes	Precautionary measures for handling, transport, and other safety measures	Disposal
1	ETP Waste sludge & Scrubber waste	Copper – 1679.55, Arsenic- 1339.39, Selenium- 351.66, Zinc-160.42	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	Copper – 6186.07, Arsenic- 100799.78, Selenium- 165.13, Zinc-61.93	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.	Collection in closed stainless steel vessel, recycling & treatment/encapsulation, and disposal at own SLF site / common TSDF of BEIL

3	Used oil	Copper – 3.94, Arsenic- 3.25, Selenium-<1.0, Zinc-4.0	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.	Collection, storage and transportation, and disposal by sale to registered re-refiners.
4	Spent Electrolyte solution	Copper – 113.05, Arsenic- 1143.09, Selenium-2.89, Zinc-34.63	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.	Collection, storage, treatment in-house ETP.
5	Residue dust from SAP	Copper – 310908.47, Arsenic- 305.40, Selenium- 283809, Zinc-270.22	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.	Collection, Storage and Transportation and Disposal in furnace or into own SLF site / common TSDF.
6	Spent catalyst	Copper – 35.90, Arsenic- 268.81, Selenium- 144.68, Zinc-20.25	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 / sent to registered recycler or registered regenerator or authorized co-processing unit.
7	Used empty drums	NA	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.	Collection, Storage, Decontamination, Transportation and Disposal by reuse after in-house decontamination or send it, to authorized decontamination facility / recyclers or send back to suppliers.
8	Flue gas cleaning residue	Copper – 50698.02, Arsenic- 2900.44, Selenium- 94.23, Zinc- 226212.34	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.	Collection, Storage, Transportation and recycle into process.
9	Spent resin from DM plant	Copper – 901.80, Arsenic- 5.76, Selenium-4.10, Zinc-67.50	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.	Collection, Storage, Transportation and Disposal at own SLF site / common TSDF of BEIL.

10	Selenium & selenium compounds (REMOVED)	Removed	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.	(REMOVED)
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.	Collection, Storage, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.
12	In organic acid (REMOVED)	Removed	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.	(REMOVED)
13	Dust & Lumpy	Copper – 255833.62, Arsenic- 9376.06, Selenium-403.62, Zinc-5909.71	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, Storage, Transportation and recycled in smelter or sell to recycler.
14	Copper converting slag (C slag)	Copper – 118157.76, Arsenic- 488.26, Selenium-<1.0, Zinc-2406.98	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, Storage, Transportation and recycled in smelter or sell to recycler.
15	Liberator cake	Copper – 388954.87, Arsenic- 12572.11, Selenium-335, Zinc-11.45	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, Storage, Transportation and recycled in smelter or sell to recycler.
16	Copper Revert	Copper – 352831.47, Arsenic- 855.37 Selenium- 153.27, Zinc-2528.82	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, Storage, Transportation and recycled in smelter or sell to recycler.
17	Dore slag	Copper – 15592.95, Arsenic- 4008.46, Selenium- 95.38, Zinc-134.16	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, Storage, Transportation and recycled in smelter or sell to recycler.
18	Lead Anode/ Cathode	Copper – 7871.30, Arsenic- 6040.77, Selenium-	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.

		15.99, Zinc-37.33			
19	Cotton waste used (Contaminated cotton rags or other cleaning materials)	Copper – 1531.59, Arsenic- 19.40, Selenium-6.75, Zinc-280.96	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	Copper – 333.30, Arsenic- 12.21, Selenium-<1.0, Zinc-79.44	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)	Copper – 2237.56, Arsenic- 160.94, Selenium- 178.97, Zinc-3013.62	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	Copper – 58.54, Arsenic- 85.03, Selenium- 163.49, Zinc-16.90	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	Copper – 53.43, Arsenic- 3648.03, Selenium- 15.51, Zinc-19.25	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 at own captive TSDF Site OR Approved common TSDF site or send to authorized co processing facility.
24	Thermal Plant Evaporation Sludge	Copper – 43.57, Arsenic- 1013.77, Selenium- 79.69, Zinc-20.18	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 at own captive TSDF Site OR Approved common TSDF site or send to authorized co processing facility.

PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

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

Sr.No.	Details	Expenditure (in Lakh Rs.) for period of April-24 to Mar-25	Expenditure (in Lakh Rs.) for period of April-25 to Mar-26
1	Effluent Treatment Plant (main)		
	(a) Chemical Consumption	2729.34	2845.04
	(b) Repair and Maintenance	91.51	138.07
	(c) Electrical Cost	20.39	22.03
	(d) Secured land fill facility	26.69	438.43
	(e) ETP Waste handling and compaction	245.3	382.51
2	Solid Waste Management		
	(a) Gypsum handling & compaction	966.94	1274.000
	(b) Slag & ash handling		
3	Sulphuric Acid Plants		
	(a) Consumption of chemicals, fuel, etc.	4166.01	4920.13
	(b) Repair and Maintenance	705.56	2064.30
	(c) Electrical Cost	29.13	25.28
4	Environmental Monitoring and Studies	41.11	44.38
5	Smelter, Refinery & PMR plant		
	(a) Bag filter replacement	44.54	
	(b) Scrubber operation	1117.16	986.00
	(c) ESP operation	150.27	16.00
	(d) Bag filter, Scrubber & ESP Smelter-3		442.85
	(e) PMR plant	44.63	30
	Concentrate Dryer Bag Filter Cost	384.00	6
6	Phosphoric Acid Plant & DAP plant		
	(a) Scrubbing system operation	Plant not in operation	Plant not in operation
7	Captive Power Plants		
	(a) ESP, I D fan & Ash handling operation	594.18	416.61
8	Horticulture / green belt work	130.12	127.03
	Total	11406.00	14178.67

PART – H

Additional measures / investment proposal for environmental protection including abatement of pollution /prevention of pollution.

In order to ensure environmental protection and abatement of pollution a dedicated system of pollution control equipment have been installed across the plant. Fugitive emission is controlled by water spraying or attachment of bag filters at transfer points. Adequate scrubbing system is provided to remove PM, NOx and SO2 gas.

The plant effluent is treated in effluent treated plants having capacity of 4400 KLD. After three stage treatment, treated effluent is filtered through ultrafiltration and passed through two stage Reverse Osmosis membranes in ETP recycling RO unit of 5400 KLD capacity. Permeate from RO membranes are recycled as soft water and the reject is transferred to tertiary water recycling unit (TWRU) of 2000 KLD capacity. The treated effluent is recycled in process of plant.

The plant domestic effluent is treated in the MBR based STP having capacity of 500 KLD. We are also having the STP at township of 700 KLD capacity to treat the domestic effluent. The treated effluent is being utilized in greenbelt development. All the monitored parameters are within the permissible limit prescribed by the Gujarat pollution control board.

The generated slag is being sold to Cement, Abrasive RMC and Construction and building material manufacturing industries. Phosphogypsum and fly ash is disposed to cement manufacturing companies.

To meet the global benchmark in SO2 emission management we are in the process of upgrading our existing air pollution control system in PMR and Smelter with a multi-staged pollution control system, which will ensure that our SO2 and PM footprint is in league with global best smelters.

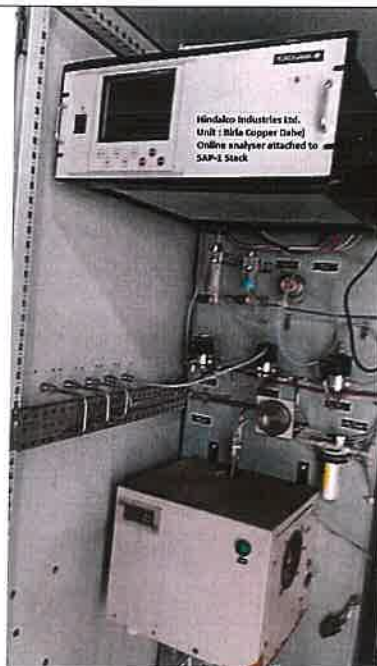
Birla Copper is accredited with ISO: 9001:2015 for its Quality Management System, ISO: 14000:2015 for its Environmental Management System., ISO: 45001:2018 for Occupational Health & Safety, ISO 50001:2018 Energy management and ISO/IEC 27001:2022 Information security.

Total 36 online continuous Emission Monitoring Systems (OCEMS) have been installed across 16 stacks as per CPCB guideline for real-time (24x7) monitoring of key environmental parameters including PM, SO2 and NOx in compliance with the conditions stipulated under the Consolidated Consent Authorization (CCA).

01 online continuous effluent quality monitoring system (OCEMS) is installed at ETP final outlet.

The emission monitoring reports are being periodically submitted to the GPCB, MoEF&CC and its Regional Office.

All installed CEMS and OCEMS are integrated with the CPCB server ensuring continuous data transmission and regulatory compliance.



CEMS at SAP-1



CEMS at Smelter-1

The unit has installed four Continuous Ambient Air Quality Monitoring Stations (CAAQMS) within the plant premises for real-time monitoring of key environmental parameters, including $PM_{2.5}$, PM_{10} , SO_2 and NO_x . Photograph of 4 CAAQMS stations in Birla Copper is given below:



CAAQMS at 4 locations

Additionally, environmental monitoring activities, including stack emission, ambient air quality, effluent quality, and noise levels, are being conducted through the GPCB & CPCB approved, NABL-accredited laboratory – M/s. Green Leaf Envirotech Ltd.

PART – I

Any other particular in respect of environmental protection and Abatement of pollution.

Tertiary Water Recycling Unit: To enhance water conservation and promote resource sustainability, the unit has installed a seawater RO plant followed by an MVR evaporator and crystallizer for further treatment of treated effluent, enabling its reuse in the process and reducing deep-sea discharge from 1000 KLD to 300 KLD.



Structural upliftment activities are being carried out in Smelter-I, Smelter-III, SAP-I, and SAP-III, including structural strengthening and protective coating application to prevent corrosion and enhance plant integrity. Similarly, the existing secondary gas scrubbers in the Smelters are being upgraded with a 5-stage dry lime-based DSI bag filter system followed by hydrogen peroxide wet scrubbing to achieve global benchmark standards for SO₂ and PM emissions.

Pneumatic Lime Dosing System at ETP: A pneumatic lime dosing system has been installed at the ETP to replace manual lime handling, resulting in improved process efficiency, control of fugitive dust emissions and

spillages, and elimination of plastic bag waste generation.



Reliable and sustainable system for segregation of process and storm water drain.

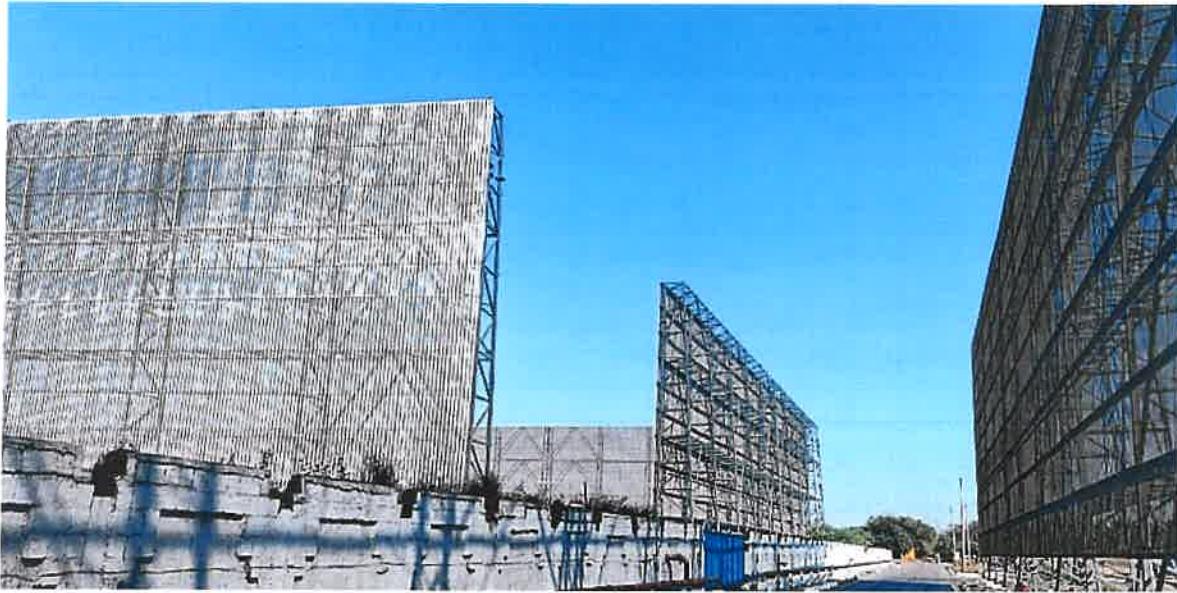
In line with our ongoing commitment to sustainability, we are in process of installing a six-stage primary off gas management system in Precious Metal Refinery (PMR) plant

Installation of hydrogen peroxide-based Tail Gas Scrubber in Sulphuric Acid Plant-I is in progress.

The unit has ensured proper handling, storage, utilization, and disposal of solid waste/by-products, including Phosphogypsum, Copper Granulated Slag, and Fly Ash.

Dedicated storage yards are used for Copper Slag and Phosphogypsum, while Fly Ash is stored in RCC silos and conveyed through telescopic chutes in closed bulkers.

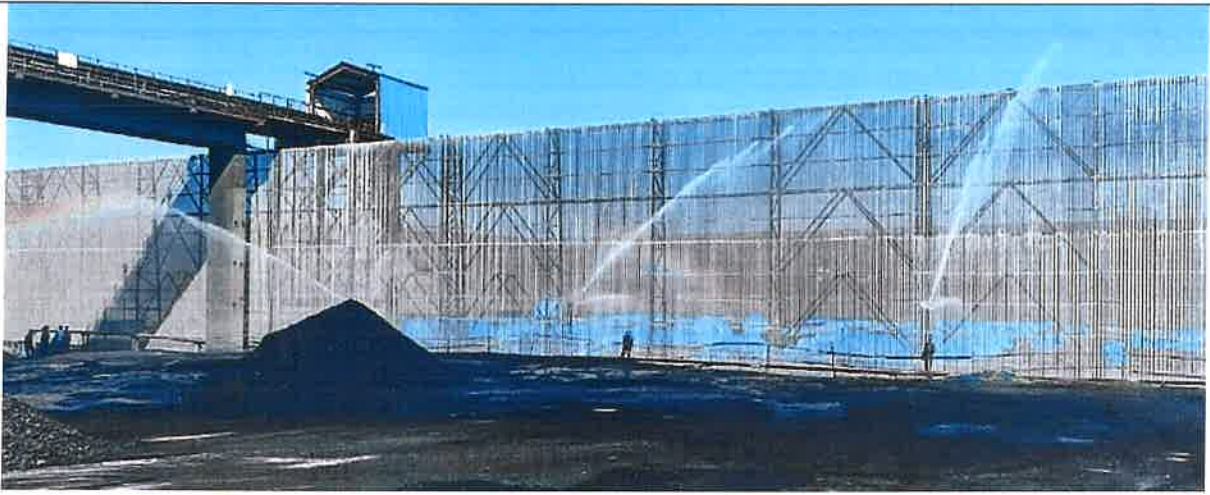
In order to ensure minimum emission from our coal handling plant, a dedicated wind breaking wall (1.1 km length) around the periphery of coal handling plant has been installed, bag filters at coal handling at coal transfer points have been installed, 34 nos. of water sprinklers have been installed across coal handling plant and at tripper conveyor moreover dedicated mist cannon is installed in coal handling plant to ensure no fugitive emissions.



Wind breaking wall



Bag house



Water Sprinkling system



Mist Cannon

1. 104939 MT ETP Gypsum sent for processing co to cement industry in FY-26.
2. 94154 MT Fly ash generation in FY-26.
3. 94154 MT Fly ash was dispatched to Cement industries, Bricks mfg. and in Road construction.
4. 621012 MT Phosphogypsum was dispatched to Agriculture and cement industries in FY-26.
5. 766896 MT Copper Slag generation in FY -26
6. 969123 MT Copper Slag was dispatched to Abrasive, Cement, RMC, Construction and Industrial uses in FY-26

Green Belt Development: A total of **21,741 saplings** were planted during FY 2025-26 across the plant, township, and outside-the-fence areas to strengthen the green belt, enhance biodiversity, and improve the overall environmental sustainability of the region.

Greenbelt Development Status of Plant & Township

Year of Plantation	Location	No. of Trees planted	Survival Rate (%)	No. of plants survived	Area covered in plantation (Ha)	Plant Species Detail
Till FY20	Plant &	219905	87%	191317	106.29	Acacia arabica, Ailanthus excelsa,

FY-21	Township	1972	85%	1676	0.93	Azadirachta indica, Cassia fistula, Casuarina equisetifolia, Ceiba pentandra, Dalbergia sissoo, Ficus bengalensis, Ficus elastica, Ficus religiosa, Pandanus species, Peltophorum ferruginum, Pithecellobium dulce, Plumeria alba, Polyalthia longifolia, Samanea saman, Tamarindus indica, Terminalia cuttapa, Thespesia populnea etc
FY-22		7905	82%	6482	3.60	
FY-23		2912	90%	2621	1.46	
FY-24		15378	89%	13686	7.6	
FY-25		3242	90%	2918	1.62	
FY-26		21741	85%	18480	2.00	
Total		273055	87%	237179.85	123.5	

World Environment Week 2026: Birla Copper, Dahej celebrated World Environment Week (1-5 June 2026) under the theme *"Climate Action: Inspired by Nature. For Climate. For Our Future"* through awareness sessions, competitions, village sapling distribution, a mega plantation drive with participation from 300 employees and frontline workers, and an environmental oath-taking ceremony, reinforcing its commitment to sustainability and climate action.



Automatic Weather Monitoring Station: An automatic solar-powered weather monitoring station has been installed at Birla Copper in FY 26 for real-time monitoring of meteorological parameters, supporting environmental compliance, data-driven decision-making, and sustainable operations.



Biodiversity Enhancement Initiative: A total of **75 bird nests** have been installed at identified locations across the plant and township premises to provide safe nesting habitats for birds, supporting local biodiversity conservation and ecological sustainability.

Butterfly Garden Development: A butterfly garden has been developed in the CCR-3 lawn area to create a conducive habitat for butterflies, enhance local biodiversity, and promote ecological balance within the plant premises.



Date: 17th July 2026
Place: Dahej
Dahej

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


Krishnaraju Kumaravel
(President & COO)