

ADITYA BIRLA



Ref.No: HILP/HKD/2026-27/354

01st June 2026

To,

The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawan
A / 118, Nilakantha Nagar
Unit - VIII
Bhubaneswar- 751012

Sub: **Environment Statement – Form V (as per Rule 14 of EPA Rules, 1986) for the year 2025-26 of Hindalco Industries Ltd, Hirakud, CPP– reg.**

Dear Madam/Sir,

Please find enclosed herewith the Environment Statement – Form V (as per Rule 14 of EPA Rules, 1986) duly filled in with enclosures w.r.t our Captive Power Plant at Hirakud for the financial year 2025-26.

Thanking you.

Encl: As above.

Yours truly
for M/s Hindalco Industries Ltd

Arun Kumar Singh
Plant Head - Hirakud Power

Copy for kind information to:

1. Deputy Director General of Forests (C), MoEF&CC, IRO, A/3, Chandrasekharpur, Bhubaneswar – 751023
2. The Regional Director, Eastern Regional Directorate Office, Central Pollution Control Board, Southend Conclave, Block No. 502, 5th Floor (Office) Rajdanga Main Road, Kolkata 700107.
3. The Regional Officer, SPCB, Sambalpur, Odisha, 768002

Hindalco Industries Limited

Hirakud Complex, Hirakud - 768 016, District : Sambalpur, Odisha, India

T : +91663 2481307 / 2481273 / 2481295 | Fax : +91 663 2481356 / 2481342 | E : hindalco@adityabirla.com

W : www.hindalco.com

Registered Office : 21st Floor, One International Center, Tower 4, Senapati Bapat Marg,
Prabhadevi, Mumbai 400013

Corporate ID No.: L27020MH1958PLC011238

"FORM - V"
(See Rule - 14)

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR ENDING 2025-26

PART - A

01. Name and Address of the owner / Occupier of the Industry, Operation or Process : Arun Kumar Singh
Plant Head - Hirakud Power
Hindalco Industries Limited
Post: HIRAKUD - 768 016
Dist: Sambalpur (Odisha).
02. Industry Category
Primary - (STC Code) : Major
Secondary- (SIC Code) : Nil
03. Production Capacity - Units : 467.5 MW or 4095.3 million units (MU)
Per Annum

Actual Production in Million Units (MU) : 3102.637 million units (MU)
04. Year of Establishment :1993 - Unit # I (67.5 MW)
2005 - Unit # II (100 MW)
2006 - Unit # III (100 MW)
2008 - Unit # IV (100 MW)
2013 - Unit # V (100 MW)
05. Date of the last Environmental Statement Submitted : 16th June 2025

PART – B

Water and Raw Material Consumption

01. **Water Consumption m³/day**

Average (Approx.)

Process & Cooling	:	17925.93	m ³ / day
Domestic*	:	2212.15	m ³ / day

* Including Colony Potable water

Name of the Products	Water consumption per unit of product *	
	During the previous FYU 2024 – 25	During the Current FY 2025 - 26
Electricity	2.26 m3 / MWH	2.11 m3 / MWH

* Clarified water consumption per unit of the product

02. Raw Material Consumption:

Name of the Raw Materials	Name of the Products	Consumption of the Raw materials Per unit of Output	
		During the Previous FY 2024 - 25	During the Current FY 2025 - 26
Coal	Electricity	0.820 Kg / KWH	0.792 Kg / KWH

PART - C

**Pollution Discharged to Environment/unit of output.
(Parameters as specified in the Consent Order)**

Pollutants	Quantity of Pollutants discharged. (mass/day)	Concentrations of Pollutants in discharges (mass/volume)	Percentage of Variation from prescribed standards with reasons.							
a) Water	Nil	No untreated effluent is discharged outside. Cooling tower blowdown and process water are treated in a 120 m ³ /hr RO-based ETP, upgraded with an additional 190 m ³ /hr MVRE-ZLD system and a 50 KLD tube settler, and fully recycled as cooling tower make-up.								
(b) Air	mg/Nm ³	Emission through stacks in 2025 - 26 _annual avg value								
		Parameter	Unit - I	Std.	Unit - II	Unit - III	Unit - IV	Unit - V	Std.	Remark
		PM	0	100	44.43	45.21	43.53	42.59	50	Within the standard
		SO ₂	0	NA	583.80	617.00	574.88	555.44	NA	
		NO _x	0	600	336.47	337.14	333.35	314.02	450	
Hg		--	0.01	0.01	0.01	0.01	0.03			

PART - D

**Hazardous Wastes
[As specified under Hazardous Wastes (Management and Handling) Rules]**

Hazardous Wastes	Total Quantity (Generation)			
	During the Previous FY (2024 - 25)		During the Current FY (2025-26)	
(a) From Process	Used Oil	30.33 KL	Used Oil	26.08 KL
	Waste containing oil	1.77 MT	Waste containing oil	3.53 MT
	Spent Resin	3.30 MT	Spent Resin	1.30 MT
	Empty Barrels/Contaminated with Hazardous Chemicals /Wastes	1.33 MT	Empty Barrels/Contaminated with Hazardous Chemicals /Wastes	0.99 MT
(b) From Pollution Control Facilities	Nil		Nil	

PART - E
Solid Wastes

		TOTAL QUANTITY (MT)	
		During the Previous FY (2024 - 25)	During the Current FY (2025-26)
(a) From Process	Fly ash	945257.58	887921.13
	Bottom ash	105028.61	98657.90
	Total Ash	1050286.19	986579.03
(b) From Pollution Control Facilities			
(c) (1) Quantity re-cycled or re-utilized	Quantity dispatch for Cement Plant	90378.78	173067.09
	Quantity dispatch for Bricks manufacturing	718905.30	451592.72
	Quantity used for Filling of low-lying areas /abandoned stone quarry	163375.78	362226.71
	Quantity used for Road construction	78256.59	Nil
	Percentage of Ash utilization	100.06	100.03
(2) Sold		Nil	Nil
(3) Disposal*		Nil	Nil

* Ash mound closure certification received after stabilization and reclamation vide letter no. 9251/INS-I-CON-1411 Dated-07.06.2023.

PART - F

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as Solid Wastes and indicate disposal practices adopted for both these categories of wastes.

A. Generation & Disposal of Hazardous Wastes:

Sr. No.	Name of Waste	Authorized Quantity/A	Quantity generated	Disposal Quantity	Disposal Practice
1	Used Oil (KL)	50	26.08	28.56	Used oil generated from various processes is collected in barrels and stored in the oil storage shed and sold to authorized recyclers.
2	Waste containing oil (MT)	8	3.53	3.52	Waste containing oil, comprising cotton used during handling of oil, is kept on an impervious

					floor under well ventilated covered shed and disposed to a cement plant for co-processing.
3	Spent Resin (MT)	10	1.30	1.30	Spent Resin generated from the DM Plant is kept under a shed in barrels and Co-incinerate in its own CPP with coal.
4	Empty Barrels/Contaminated with Hazardous Chemicals /Wastes	10	0.99	2.37 (Buy back to supplier)	Empty barrels are kept on an impervious floor under well well-ventilated covered shed and sent back to the supplier through buy-back.
5	Insulated Copper Wire Scrap or copper with PVC sheathing including ISRI code material namely 'Druid	50	2.18	2.18	Stored over impervious floor under well ventilated covered shed followed by disposal through Actual Users authorized by SPCB, Odisha
6	Damaged Insulation Materials	100	0	0	Storend overimperviously lined pits under well ventilated covered shed followed by Co-processing in authorized Cement Kilns / disposal in CHWTSDf
7	Rubber Waste	200	0	0	Stored over impervious concreted platform under well ventilated covered shed followed by disposal through Actual Users authorized by SPCB, Odisha and registered under EPR portal of CPCB for Waste Tyre
8	Waste pneumatic and other tyres, excluding those which do not lead to resource recovery		0	0	
9	Wastes Parings and Scrap of Rubber		0	0	

B. DISPOSAL PRACTICE OF SOLID WASTES:

Fly ash & bottom ash are generated in dry form and is conveyed pneumatically to silos of 9 x 1400 MT. The stored ash from the silos is dispatched for utilization in various sectors like Cement, Bricks, Road making, Low lying area filling/Backfilling in Stone quarry etc. The quantity of generation, utilization, and disposal of ash for the year 2025-26 is stated below:

The unloading of Ash from the Silo is done through Ash Conditioning units where ash is conditioned with water containing adequate moisture, leaving no ash particles to be airborne. The ash is transported in tarpaulin-covered, and rope-tied trucks to various sectors of utilization, like cement and fly ash brick manufacturing, low-lying area filling/backfilling in the stone quarry, road construction, etc. The typical analysis report of ash is enclosed as Annexure I.

Areas of ash utilization	Quantity in MT
Quantity used for Cement Production	173067.09
Quantity used for Brick Manufacturing	451592.72
Quantity used for Low lying area development & Stone Quarry backfilling	362226.71
Quantity used for Road construction	Nil
Percentage of Ash Utilization (%)	100.03

PART – G

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

A) Air Pollution Control Measures:

- 1) Electrostatic Precipitators, Dust Suppression, and Dust Extraction systems were working properly. Unit-1 is a standby unit and has been kept idle during the years 2025-26. A total 13 nos of ESPs installed in all 13 Boilers. Further, Bag Filters were installed in Secondary Crusher Houses and all transfer Points to control the Fugitive emissions.
- 2) Fixed sprinklers installed all around the coal yard and additional water tankers deployed to dust suppression on roads. The summary of the ambient air quality monitoring report is enclosed as Annexure - II.

B) Wastewater Management:

- 1) The wastewater generated out of the Plant is treated with continuous dosing of Alum, Lime, and Sodium Hypochlorite followed by settling in a pit before discharge to a common monitoring basin. The effluents generated from the Plant, after treatment and settling in a common monitoring basin were re-used in the Ash Conditioning system for ash moisturization, coal yard spraying, road washing, gardening, etc. The treated effluent is reutilized as makeup in the Cooling Tower. Blowdown from the Cooling Towers is treated in the RO Plants of capacity 120 m³/Hr & 190 m³/Hr with MVRE ZLD System and re-used in the cooling tower and process. The quality of the effluent in the final pit is enclosed as Annexure - III.

- 2) One STP of 300 KLD installed for power plant and power plant colony for treatment of sewage water. The treated water is reused for cooling tower makeup and gardening purposes.

Impact on Cost of Production:		2024 – 2025	2025 – 2026
Total Environmental expenditure in Lakh	:	10392.62	8664.48

*Note: Environmental expenditure of both Smelter & CPP is considered

PART – H

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

Adequate pollution control measures are undertaken for the prevention of pollution like

1. Ash Silos are provided with Telescopic chutes for dry disposal of ash to cement plants.
2. Installed an additional new Wheel washing system for control of road dust.
3. Installation of auto-lime dosing system completed in all the operating boilers.
4. One truck-mounted road sweeping machine is in operation for cleaning all the internal roads as well as public roads from Remed Chowk to Hirakud.
5. Automated water sprinklers for dust suppression in the dust generating sources like Coal yards, Railway siding, ash silo areas, and coal and ash transporting roads.

PART - I

Any other particular for improving the quality of the Environment.

1. Mobile water tankers deployed for road and coal dust suppression.
2. Automated water sprinklers for dust suppression in the dust generating sources like Coal yards, Railway siding, ash silo areas, and coal and ash transporting roads.
3. The unit has provided 6 Fog Canons around Coal Handling & Ash Handling (Silo) area for suppression of fugitive dust.
4. Transportation of Fly ash is carried out in covered vehicles to avoid spillage on roads.
5. The railway siding has been provided with a dust containment wall on both sides having a height of 7 meters from the ground level. Around 42 no sensor-based sprinklers with 15-meter throw have been provided to control fugitive emissions during loading and unloading in the railway siding.
6. Upgradation of RO Plant by addition of 190 m³/hr with MVRE ZLD System & Surface Runoff Treatment System (Tube Settler) of 50 KLD commissioned.
7. Solid waste management facility shed has been made for proper disposal process.



Arun Kumar Singh
Plant Head - Hirakud Power

ANNEXURE - I**ANALYSIS RESULTS OF ASH**

Silica as SiO ₂	:	61.18	%
Alumina as Al ₂ O ₃	:	26.60	%
Oxide of Iron as Fe ₂ O ₃	:	6.10	%
Titanium Oxide as TiO ₂	:	0.46	%
Lime as CaO	:	1.82	%
Magnesia as MgO	:	0.73	%
Potash as K ₂ O	:	0.51	%
Soda as Na ₂ O	:	0.40	%
Sulphate as SO ₃	:	0.07	%
Phosphate as P ₂ O ₅	:	0.21	%
Loss on ignition	:	1.57	%

* Sample analysed by M/s. R.V. Briggs & Co. Pvt. Ltd., Kolkata. (sample Boiler#5 dt:-18.05.26)

ANNEXURE – II

<u>AMBIENT AIR QUALITY</u>													
Particulate Matter PM₁₀		Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Standard - 100.0 µg/m³		
Location											Jan-26	Feb-26	Mar-26
CHP Control Room Top		71.2	66.4	65.8	62.2	62.8	61.5	60.8	59.7	60.6	61.1	61.5	62.2
120° NNE (Near Admn. Building)		68.0	62.3	61.4	58.8	59.4	58.4	56.9	55.4	56.2	55.9	56.4	57.0
240° SSE (Rajapada village)		68.9	63.9	62.8	59.4	59.8	58.2	59.0	59.3	59.8	59.4	58.9	59.6
Ash Silo		69.4	64.0	63.2	60.5	60.1	59.6	59.5	58.6	59.4	58.6	59.2	59.8
Particulate Matter PM_{2.5}													
Location		Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Standard - 60.0 µg/m³		
											Jan-26	Feb-26	Mar-26
CHP Control Room Top		36.2	33.4	33.1	31.4	31.6	31.0	30.6	30.1	30.5	30.8	31.1	31.4
120° NNE (Near Admn. Building)		34.9	31.8	31.2	29.6	29.9	29.5	28.9	28.1	28.8	28.2	28.6	28.9
240° SSE (Rajapada village)		35.3	32.2	31.9	30.1	30.1	29.8	29.7	29.8	30.2	29.7	29.5	29.8
Ash Silo		35.6	32.6	32.1	30.3	30.2	30.1	29.8	29.5	29.9	29.5	29.9	29.6

Sulphur Dioxide SO ₂												
Location	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
	CHP Control Room Top	25.9	22.8	22.2	20.6	20.8	21.1	20.9	20.1	20.5	20.2	20.5
120° NNE (Near Admn. Building)	24.0	21.5	21.1	19.8	18.8	19.2	19.8	19.6	19.8	19.4	19.6	19.5
240° SSE (Rajapada village)	21.6	20.9	20.5	20.1	19.6	19.0	18.6	18.8	19.1	18.9	19.2	19.8
Ash Silo	23.5	21.5	21.1	20.9	20.2	20.1	20.5	20.2	20.4	20.2	20.5	20.2

Oxides of Nitrogen NO _x												
Location	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
	CHP Control Room Top	28.4	25.6	25.2	23.6	23.2	22.5	22.9	22.3	22.6	22.3	22.8
120° NNE (Near Admn. Building)	26.6	23.2	22.9	20.1	20.8	19.8	19.1	18.9	19.2	19.0	19.6	20.1
240° SSE (Rajapada village)	24.5	22.8	22.5	21.8	21.2	20.6	21.3	22.0	22.3	22.1	21.9	22.3
Ash Silo	25.1	23.9	23.4	21.5	21.4	20.9	20.5	21.2	21.0	20.6	20.2	20.8

