ADITYA BIRLA

HINDALCO

**Letter No: HIL/BC/ENV/III/15178/2026-27/036** **Date:27th June 2026**

**PCB ID: 15178**

**To,**
**The Regional Officer,**
**Gujarat Pollution Control Board**
**Plot No. D–2/P/21/1, GIDC Dahej–2 Industrial Estate,**
**Near Rahiyad Chowkadi, Dahej Taluka: Vagra, District: Bharuch**

**Subject: Submission of Environmental audit report for the year 2025-26.**

**Ref.** This has reference to the Hon'ble Gujarat High Court order dated 20-12-1996, 13-03-1997, 04-06-1997 and 16-09-1999 regarding Environmental audit and directives of Gujarat Pollution Control Board regarding submission of the Environmental audit report.

**Dear Sir,**

We are submitting herewith the Environmental Audit Report for financial year 2025-2026 for M/s Hindalco Industries Limited, Unit: Birla Copper, Dahej GIDC, At post. Lakhigam, Dahej-392130 Tal-Vagra, Dist.- Bharuch. The environmental audit was conducted by Indrashil University, Rajpur, Taluka: Kadi, Dist.: Mehsana, State: Gujarat, as per the guidelines of Environmental audit scheme. We have a valid ISO 14001:2015 certificate. The Scrutiny fees of Rs 10000/- have been paid online through XGN 2.0.
Kindly acknowledge the receipt of the audit reports & scrutiny fee.

Submitted for your kind consideration and record please.
**Yours faithfully,**
**For: Hindalco Industries Limited**

**Krishnaraju Kumaravel**
**President and Unit Head**

Encl: 1. Environment Audit Report (FY-2025-26)
2. Payment acknowledgement receipt

**CC: Member Secretary, Paryavaran Bhavan Sector 10-A, Gandhinagar-382010**

HINDALCO INDUSTRIES LIMITED
(UNIT : BIRLA COPPER)
P.O. : Dahej, Dist. Bharuch,
Gujarat-392 130, INDIA.
Telephone +91 2641 256004-6
Fax +91 2641 251002-3

Registered Office: 21st Floor, One International Center,
Tower 4, Prabhadevi, Near Prabhadevi Railway Station,
Senapati Bapat Marg, Mumbai 400013
Telephone +91 22 694 7 7000 / 6947 7150
IF : +91226947 7001/6947 7090

Website www.hindalco.com
Email hindalco@adityabirla.com
Corporate Identity No. L27020MH1958PLC011238

GPCB

# Payment Acknowledgment

| | | | |
|---|---|---|---|
| **Payment ID:** | 689877 | **Payment Date:** | 25/03/2026 |
| **Application No:** | 6749 | **Application Type:** | |
| **Company Name:** | Hindalco Industries Ltd(15178) | | |
| **Address:** | 2,10,11,43 GIDC, AT POST. DAHEJ-LAKHIGAM - GIDC: Dahej, Village: DAHEJ Tal: Vagra Dist: Bharuch Pin: 392130 | | |
| **Bank Name:** | *** | **Branch Code:** | *** |
| **Amount (INR):** | 10000 | **Payment Mode:** | NET |
| **Transaction No.:** | CCH3IK11FIZIL2 | **Status:** | 0300 NA |
| **Remark:** | EAF Fees | | |

**This is a system-generated payment acknowledgment issued based on a successful response received from the payment gateway.**
**The final confirmation is subject to successful reconciliation and verification of the transaction by GPCB.**
**In case of any discrepancy, the decision of GPCB shall be final and binding.**

GPCBID: 15178, InwID: 6749, Print by: 15178
Print Date: 06/04/2026 10:29:48

INDRASHIL UNIVERSITY
A LIFE SCIENCES UNIVERSITY
Sustained Excellence with Relevance

# ENVIRONMENTAL AUDIT REPORT

**FOR**

**AUDIT PERIOD**

**April - 2025 to March - 2026**

## Industry:

## M/s. Hindalco Industries Limited

**(Unit: Birla Copper Dahej)**

**Dist. Bharuch (Gujarat)**

## Audited by:

INDRASHIL UNIVERSITY
A LIFE SCIENCES UNIVERSITY
Sustained Excellence with Relevance


**Indrashil University**

**A Life Science University**

**Sustained Excellence with Relevance**

**Rajpur, Kadi, Mehsana – 382715**

**Administrative Office :**Ground Floor, Block – B, Magnet Corporate Park, Nr. Sola Bridge, S. G. Highway, Ahmedabad – 380054, Gujarat, **Tel:** 07990718961| **Email: eac@indrashiluniversity.edu.in**

**Campus Address:** On Ahmedabad – Mehsana Highway, Take Left from "Kalapi Hotel" Nr. Chhatral GIDC, Rajpur,

**Taluka:** Kadi, **Dist.:** Mehsana 382715

# PREFACE

We thank the Honourable High Court of Gujarat and Gujarat Pollution Control Board, Gandhinagar for entrusting and recognizing us as a Schedule – I Environment Auditor to carry out Environmental Audits.

Gujarat Pollution Control Board (GPCB), Gandhinagar, vide its order dated 05/07/2025, allotted Environmental Audit work of M/s. Hindalco Industries Ltd., Dahej to the EAC , Indrashil University (ID : 2332) for the year 2025-26.

Indrashil University has been recognised by the Gujarat Pollution Control Board (GPCB), Gandhinagar as Schedule-I Environment Auditor.

1. As per the guidelines given by GPCB, the Environmental Audit for the period of April 2025 to March 2026 was carried out by monitoring and analysing Air, Wastewater, Stacks, Solid Waste, and Noise levels at M/s. Hindalco Industries Ltd. Unit-Birla Copper, Dahej (PCB ID: 15178), situated at 2, 2A (109/P),10, 11 GIDC, At Post Dahej-Lakhigam, Tal. Vagra, Dist. Bharuch – 392 130.
2. The data and information regarding energy & water consumptions, material balance, safety & health aspects, etc. received from the industry and the results of monitoring and analysis carried out by audit team members were evaluated for the preparation of this Environmental Audit Report.
3. Subsequently, an Adequacy and Efficacy Certificate of the Environmental Management System is issued to M/s. Hindalco Industries Ltd., Dahej for their pollution control measures as found in the Environmental Audit Report.
4. The audit report is based on data furnished by the industry and data collected by the audit team during visits to the industry. All data has been used for judging the adequacy and efficacy of Environmental Pollution Control Measures.

# EXECUTIVE SUMMARY

## 1. Consent and Production

Industry Name : **M/s. Hindalco Industries Ltd.**, Unit-Birla Copper At & PO. Dahej, Lakhigam, Taluka Vagra, Dist. Bharuch – 392 140, Gujarat

Consent Order No. : AWH - 155156 | Date of Issue: 27/03/2026 | Valid up to: 26/01/2032

Audit Period : 1st April 2025 to 31st March 2026

Products manufactured (Cathode Copper, Sulphuric Acid, CC Rod, Gold, Silver, Oxygen and others) are within consented quantities. Refer Annexure – 5 for details.

## 2. Observations Related to Energy and Resource Consumption

Total Power Consumption (2025-26): [752168] MW.

Total Natural Gas Consumption: 5,13,20,580 SCM.

Total Water Consumption: 75,58,809 $m^3$ (Water Consumption/Tonne Product: [ 17.90] KL/MT).

Specific Power Consumption per MT: [1.78] MW/MT.

## 3. Observations Related to Wastewater

Total Wastewater Generation (2025-26): 1387287 m3.

Industrial Wastewater generation: 10,84,677 $m^3$ (Industrial: 3,286.90 m3/day)

Domestic wastewater generation: 3,02,610 $m^3$ (Domestic: 917.0 m3/day).

Mode of Disposal: Final treated effluent is discharged through a dedicated HDPE pipeline into the deep sea at a distance of approx. 2 km with a diffuser system.

ETP and RO Capacity : 5,400 $m^3$/day | ETP Status : Operational and satisfactory.

## 4. Observations Related to Hazardous Waste

Total Hazardous Waste Generated (2025-26) : [2,31,060] MT (Refer Annexure – 21 for category-wise details)

Disposal Route: Out of total generated hazardous waste approx. 98 % was sent for co processing and recycling and approx. 2% was sent to TSDF and incineration.

## 5. Pollution and Control

Stack Emissions: Refer Annexure – 18. All stacks within GPCB norms.

Ambient Air Quality: Adequate monitoring conducted. Refer Annexure – 19.

Monitoring Facilities: Adequate — platforms, sampling ports, stairs, and power supply points provided.

## 6. General

Green Belt / Cover: 121.5 Ha

CSR Activities: Refer Annexure – 33.

Mock Drills: Mock drill conducted in Smlter-1 for metal spillage. Refer Annexure – 28.

Trainings: Periodic safety and environmental trainings conducted. Refer attached Annexure-29

## 7. Suggestions by Auditors

The industry shall continue efforts towards zero waste to landfill by 2029 as planned and shall monitor water consumption trends closely to identify conservation opportunities.

Regular upgradation of bag filters and ESPs shall be continued to maintain air quality standards.

| SECTION A — GENERAL INFORMATION | | |
|---|---|---|
| **Sr. No.** | **Particulars** | **Details / Answers** |
| **1.** | Name of the Industry | M/s. Hindalco Industries Ltd. (Unit: Birla Copper, Dahej) |
| **2.** | Location (Factory) | Plot No. 2,2A(109/P) 10, 11 — GIDC Industrial Estate<br>At & Post: Dahej- Lakhi gam, Taluka: Vagra<br>Dist. Bharuch – 392 130, Gujarat |
| **3.** | Registered Office Address | Ahura Centre, 1st Floor, B-Wing<br>Mahakali Caves Road, Andheri (East)<br>Mumbai – 400 093<br>Tel: +91 22 6691 7000 \| Fax: +91 22 6691 7001 |
| **4.** | Month & Year of Establishment | February 1995 (Production commenced: March 1997) |
| **5.** | Number of Workers Employed | Total Employees: 1,741<br>Male : 1,650<br>Female : 91 |
| **6.** | Electrical Connection Details | Number of H.T. Connections: 1 (Service No. 39123)<br>Total Connected Load : 76,228 KW<br>Electric Consumption/Unit : Refer Annexure – 1 |
| **7.** | Number of D.G. Sets & Capacity | 2 DG Sets — 2.5 MW and 2.0 MW capacity each<br>(For emergency use only) |
| **8.** | Name & Residential Address of all Directors / Partners | Refer Annexure – 2 |
| **9.** | Telephone / Fax / E-mail of Industry & Directors | Factory Tel : 02641-256004 / 256005 / 256006<br>Fax : 0261-251002 / 251003 |

| | | |
|---|---|---|
| | | Website : http://hindalco.com<br>Directors : Refer Annexure – 2 |
| 10. | Number of Shifts & Timings | 1st Shift : 06:00 to 14:00 Hrs.<br>2nd Shift : 14:00 to 22:00 Hrs.<br>3rd Shift : 22:00 to 06:00 Hrs.<br>General : 08:30 to 17:45 Hrs. (Mon–Fri)<br>08:30 to 13:00 Hrs. (Saturdays) |
| 11. | Name & Address of Environment / Safety In-charge | Mr. Sachin Sharma<br>(Head-Environment & Utility)<br>M/s. Hindalco Industries Ltd., Birla Copper<br>At & Post Dahej-Lakhigam, Tal. Vagra, Dist. Bharuch – 392 130 |
| 12. | ISO / OHSAS / Other Certifications | ISO 9001:2015 — Quality Management System<br>ISO 14001:2015 — Environmental Management System<br>ISO 45001:2018 — Occupational Health & Safety<br>ISO 50001-2018 — Energy management<br>ISO 27001-2022 —Information security management<br>Refer Annexure – 3 |
| 13. | Number of Days Production was in Operation during Audit Period | Refer Annexure – 4 |
| 14. | Whether Cleaner Production / Cleaner Technology / CDM Adopted? | Yes:<br>– Replacement of fuel from Furnace Oil to Natural Gas in significant quantities.<br>– Introduction of new Dilute Oxygen Combustion (DOC) based Oxy-Fuel Burner system for improved combustion efficiency and better recovery from furnace. |

| | | |
|---|---|---|
| | | – Continuous effort to reduce carbon footprint per tonne of copper produced.<br>– Approx.18 % power is replaced with renewable energy. |

| SECTION B — PRODUCTION DETAILS | | |
|---|---|---|
| **Sr. No.** | **Particulars** | **Details / Answers** |
| **1.** | Name of Products & Capacity with Yield / Purity per Day | Refer Annexure – 5<br>Main Products: Cathode Copper, Sulphuric Acid (98.4%), CC Rod, Gold, Silver, Oxygen (Tech.), Electric Power |
| **2.** | Name of all By-Products and Quantity per Month | Refer Annexure – 5<br>By-products include: Selenium, PGM Concentrate, Granulated Slag, |
| **3.** | Date of Commencement of Production.<br>Whether Production as per Consented Quantity? | Date of Commencement: March 1997<br>Production carried out as per consented quantity only.<br>(Phosphoric Acid, DAP/NPK not in operation during audit period of Year 2025-26) |
| **4.** | All Raw Materials Required per kg of Product(s) | Refer Annexure – 6 |
| **5.** | Whether Manufacturing Process is Continuous or Batch-wise? | Process Type: Continuous Process (Smelter-3) & Batch process : Smelter-1<br>Batch capacity: Not Applicable<br>Refer Annexure – 7 |
| **6.** | Detailed Manufacturing Process with Flow Diagram, Unit Operations, Chemical Reactions, Mass Balance | Refer Annexure – 7 |

| SECTION C — WATER | | |
|---|---|---|
| **Sr. No.** | **Particulars** | **Details / Answers** |
| **1.** | Quantity of Water Consumed per Day & per Tonne of Product — Last 3 Years<br>(With Water Balance Diagram) | Total Water Consumption (2025-26) :<br>7558809 $m^3$/Year<br>– Cooling Tower / Boiler Feed : 5529955 $m^3$<br>– Process (Bio-degradable) : 701191 $m^3$<br>– Domestic Consumption : 3,02,695 $m^3$<br>Water Consumption / Tonne Product: 17.90 KL/MT<br>Previous Year (2024-25) : [7341602] $m^3$<br>Previous Year (2023-24) : [6977681] $m^3$<br>Refer Annexure – 8 |
| **2.** | Quantity of Wastewater (Trade Effluent) Generated per Tonne of Product per Day — Last 3 Years | Total Wastewater Generation (2025-26): 10,84,677 $m^3$/Year<br>Industrial Effluent : 3,286.90 m3/day<br>Domestic Sewage : 917.0 m3/day<br>Previous Year (2024-25) : [ 1057217] $m^3$<br>Previous Year (2023-24) : [ 1024331] $m^3$<br>Refer Annexure – 9 & 10 |
| **3(i)** | Name & Size of Each ETP Unit | Refer Annexure – 11 |
| **3(ii)** | Capacity of ETP | ETP and RO Capacity: 5,400 $m^3$/day<br>Sewage Treatment Plant (Plant) : 500 $m^3$/day<br>Sewage Treatment Plant (Township): 700 $m^3$/day<br>Refer Annexure – 11 |
| **3(iii)** | Flow Diagram & Hydraulic Diagram of ETP | Refer Annexure – 11 |
| **3(iv)** | Whether Lighting Arrangement around ETP is Provided? | Yes — Adequate lighting arrangement is provided around the ETP. |

| | | |
|---|---|---|
| 3(v) | Whether Separate Energy Meter Installed for ETP? Monthly Readings? | Refer Annexure – 11 |
| 3(vi) | Whether Flow Meters Provided at Inlet & Outlet of ETP? Type? | Yes — Electromagnetic Flow Meter installed at the outlet of ETP. |
| 4. | Method of Disposal of Final Treated Effluent and Point of Disposal | Final treated effluent is transported through a dedicated separate HDPE pipeline and discharged at a distance of approx. 2 km into the deep sea with a diffuser system.<br>Refer Annexure – 12 |
| 5. | Quality of Trade Effluent at Inlet, Outlet and Various ETP Stages | Refer Annexure – 13 |
| 6. | Quantity & Quality of Sewage, Treatment Method & Disposal | STP (Plant) : 500 $m^3$/day capacity — Operational<br>STP (Township) : 700 $m^3$/day capacity — Operational<br>Refer Annexure – 13 |
| 7. | Open Area Available for Disposal of Effluent | Not Applicable — Treated Effluent is discharged into deep sea via pipeline. |
| 8. | Whether Treated Effluent Quality Meets Specified Norms? | Yes — Treated effluent meets all prescribed GPCB norms. |
| 9. | Improvement in Effluent Quality since Previous Environmental Audit | Yes - Continuous improvement in ETP performance. |
| 10. | Retrofitting Undertaken to Improve ETP Performance | Yes. – Annual Maintenance for performance improvement. |
| 11. | Major Problems Encountered during ETP Operation | No major problems encountered during operation of effluent treatment facilities. |
| 12. | Details of Operator / Chemist Responsible for ETP Operation & Maintenance | Refer Annexure – 14 |

| | | |
|---|---|---|
| 13. | Current Status of Consent under the Water Act, 1974 | CC&A No. : AWH-155156<br>Date of Issue : 27/03/2026<br>Valid Up To : 26/01/2032<br>Refer Annexure – 15 |

| SECTION D — AIR | | |
|---|---|---|
| Sr. No. | Particulars | Details / Answers |
| 1. | Number of Flue Gas Stacks, Height, Nature and Consumption of Fuel | Refer Annexure – 16 |
| 2. | Details Pertaining to Stack Monitoring Facilities | Adequate stack monitoring facilities are provided at all stacks:<br>(i) Spacious Platform<br>(ii) Sampling Porthole<br>(iii) Spacious Stairs / Ladders<br>(iv) Electrical Power Supply Point |
| 3. | Number of Process Stacks, Height, Source, Expected Pollutants, Monitoring Facilities | Refer Annexure – 17 |
| 4. | Quality of Emission from Each Flue Gas / Process Stack and Deviation from Norms | Refer Annexure – 18 |
| 5. | Ambient Air Quality within Factory Premises. Monitoring Stations Outside Industry? | Refer Annexure – 19 |
| 6. | Status of Consent under the Air Act, 1981 | CC&A No. : AWH-155156<br>Date of Issue : 27/03/2026<br>Valid Up To : 26/01/2032<br>Refer Annexure – 15 |

| | | |
|---|---|---|
| 7. | Details of Air Pollution Control Measures for All Stacks | Refer Annexure – 20 |
| 8. | Improvement in Emission Quality since Previous Environmental Audit | Yes — Continuous improvement being undertaken since previous environmental audit. |
| 9. | Retrofitting Undertaken to Improve Emission Quality | Yes — Revamping of Bag Filters and ESP carried out during major plant shutdown. |
| 10. | Major Problems Encountered during Operation of Control Devices | No major problems encountered during operation of air pollution control devices. |

## SECTION E — HAZARDOUS (SOLID) WASTE

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | Quantity, Sources & Composition of Hazardous/Solid Waste — Last 3 Years | (Refer Annexure – 21 for category-wise quantities, sources and composition) |
| 2(a) | Method of Storage, Treatment & Disposal of Hazardous/Solid Waste.<br>Whether Covered/Impervious | – Hazardous waste is stored in covered, impervious (pucca) designated areas within the premises.<br>– ETP gypsum sent for co-processing at registered cement industries (1,04,939 MT dispatched).<br>– Leachate pits are present; dedicated tanker system transfers leachate back to ETP for treatment.<br>– All waste disposed via TSDF / GPCB-registered recyclers / co-processors.<br>Refer Annexure – 21 & 22 |
| 3. | Status of Authorization under the EPA-86 for Solid Waste | CC&A No. : AWH-155156<br>Date of Issue : 27/03/2026<br>Valid Up To : 26/01/2032<br>Refer Annexure – 15 |

| | | |
|---|---|---|
| 4. | Plan to Reduce Hazardous Waste Generation or Recycling | - In FY26, approx. 98% of waste generated was sent to Co-processing and recycling and approx. 2% was sent to TSDF/Incineration.<br>– Action plan prepared for Zero Waste to Landfill by Year 2029. |

| SECTION F — SITE PLAN | | |
|---|---|---|
| **Sr. No.** | **Particulars** | **Details / Answers** |
| 1. | Site Plan showing Location of ETP, Final Disposal Point, Sampling Points, Drainage Lines, Stacks, Solid Waste Storage/Disposal Area, and Green Belt Width | Refer Annexure – 24 |

| SECTION G — RESOURCE RECOVERY | | |
|---|---|---|
| **Sr. No.** | **Particulars** | **Details / Answers** |
| 1(i) | Resource Recovery including Treated Effluent for Recycle/Reuse | – Treated water generated from RO Plant is reused For industrial purpose.<br>– Desalination water is being used in place of fresh water — approx. 10,000 m3/day (approximately 50% of daily plant requirement).<br>– TWRU (Tertiary Water Recovery Unit) commissioned and producing recovered water for reuse for industrial purpose. |
| 1(ii) | Resource Recovery / By-Product Recovery from Manufacturing Process using Cleaner Production Technology | – Copper Reverts, Dust & Lumpy, Liberator Cake, Copper Converting Slag (C-Slag) and Dore Slag generated from manufacturing operations are recycled back into the system or sent to registered recyclers / co-processors / pre-processors. |

| | | |
|---|---|---|
| | | Introduction of new Dilute Oxygen Combustion (DOC) based low NOx Oxy-Fuel Burner system for improved combustion efficiency and better recovery from furnace. |

## SECTION H — HEALTH

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | Whether Any Hazard is Involved in Manufacturing or Work Environment? | Yes - Refer Annexure – 25 |
| 2. | Pre-employment and Periodical Medical Examination Facilities. | Yes — Pre-employment and periodical medical examinations are conducted for all employees.<br>Refer Annexure – 26 |
| 3. | Whether Health Records are Maintained for Adverse Effects on Workers | Yes — Health records are maintained. Refer Annexure – 26 |
| 4. | Whether Factory Medical Officer is Appointed? Full-time or Part-time? | Yes — Full-time doctors appointed:<br>1. Dr. Deepak Dara (CMO) — Birla Copper Township, Dahej – 392 130<br>2. Dr. Babita Dara — Birla Copper Township, Dahej – 392 130<br>3. Dr. Alok B. Patel — Birla Copper Township, Dahej – 392 130 |
| 5. | Details of Medical Facilities Available | ✓ Full-fledged Occupational Health Centre (OHC)<br>✓ Dispensary<br>✓ Ambulance<br>✓ Hospital facilities<br>✓ First Aid Boxes at all key locations |

| | | |
|---|---|---|
| 6. | Whether Sanitary Facilities are Provided and Satisfactory? | Yes — Adequate sanitary facilities (water closets, urinals, bathrooms) are provided for all workers and are satisfactory. |

## SECTION I — ACCIDENTS

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | Details of Accidents in the Factory and Remedial Measures Taken (April 2025 – March 2026) | Refer Annexure – 27 |

## SECTION J — SAFETY MEASURES

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | General Environment of the Factory | A. House Keeping : ✓ Good<br>B. Dustiness : ✓ Good (Controlled)<br>C. Lighting : ✓ Good<br>D. Ventilation : ✓ Good |
| 2. | Whether Protective Appliances are Provided to All Personnel? | A. Goggles : Yes — as per requirement<br>B. Gloves (Rubber + Cotton) : Yes — as per requirement<br>C. Safety Shoes : Yes — issued on joining<br>D. Helmets : Yes — issued on joining<br>E. Skin Cream : Yes — as per requirement<br>F. Soap : Yes — as per requirement<br>G. Ear Plugs : Yes — as per requirement<br>H. Face Masks / Respirators : Yes — as per requirement<br>I. Protective Clothing : Yes — as per requirement |

| | | |
|---|---|---|
| | | J. Escape Mask & Safety Goggles: Yes — issued on joining<br>(All other PPEs issued as per nature of job and as required) |
| 3. | Details of Facilities for Disaster Management / Gas Leakage | Refer Annexure – 28 |
| 4. | Whether On-Site / Off-Site Emergency Plans Prepared and Implemented? | Yes — On-site and Off-site Emergency Plans are prepared and being implemented and upgraded regularly.<br>Refer Annexure – 28 |
| 5. | Whether Records of Occupational Hazards are Maintained? | Yes — Records of occupational hazards are maintained. |
| 6. | Preventive Measures Adopted to Minimize Occupational Hazard | – Periodic medical check-up of all employees and contract workers.<br>– PPE usage training conducted for all personnel including contract workers.<br>– Regular safety training programs and drills conducted.<br>– Twice a week ambient air monitoring carried out and records maintained.<br>– Safety Week and Environment Day celebrations organized annually for awareness.<br>– Escape Mask and Safety Goggles issued to all new employees on joining. |

| SECTION K — REMEDIAL MEASURES | | |
|---|---|---|
| Sr. No. | Particulars | Details / Answers |

| | | |
|---|---|---|
| 1. | Sources, Monitoring and Measures for Control of Noise Pollution | Refer Annexure – 29 |
| 2. | Measures for Prevention, Treatment and Control of Odour Nuisance | Not Applicable — No significant odour nuisance reported from the plant premises. |
| 3. | Details of Cases / Complaints under Water Act-1974, Air Act-1981 and EPA-1986 | Refer Annexure – 30 |
| 4. | Compliance Report with respect to All Conditions of NOC / Consent | Refer Annexure – 31 |
| 5. | Incidents of Spillages, Leakages and Remedial Measures | Nil — No incidents of spillages or leakages reported during current audit period. |
| 6. | Whether Insurance Policy Obtained under PLI Act? | Yes — Public Liability Insurance (PLI) Policy obtained. Refer Annexure – 32 |

**SECTION L — WATER CESS**

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | Details Regarding Payment of Water Cess | Water Cess is not applicable after commencement of GST (as per GPCB notification). |

**SECTION M — CONSULTANT DETAILS**

| Sr. No. | Particulars | Details / Answers |
|---|---|---|
| 1. | Name and Address of the Environmental Consultant Engaged by the Industry | M/s. GREENLEAF ENVIROTECH LIMITED ,SURAT |

## SECTION N — DECLARATION

*It is declared that all the information submitted in and with respect to this Environmental Audit Report format is correct and complete. For any lapse regarding incorrect or incomplete information, we are responsible.*

| **Name & Signature of Authorized Representative of Industry (with Stamp)** | | **Names & Signatures of Audit Team Members (Indrashil University)** | |
|---|---|---|---|
| 1. Mr. Nisheeth Khandelwal (VP Copper Vertical) | | 1. Mr. Vishal Parmar (Environmental Engineer) | |
| | | | |
| 2. Mr. Sachin Sharma (Head- Environment & Utility) | | 2. Dr. Siddhant Patel (Chemical Engineer) | |
| | | | |
| 3. Mr. Somnath Saha (VP Power Vertical) | | 3. Mr. Nutan Vekariya (Chemist) | |
| | | | |
| 4. Mr. Saurabh Shrinetra (Joint President) | | 4. Mr. Pravin Zala (Microbiologist) | |

INDRASHIL UNIVERSITY KADI

**The Environment Management System Adequacy & Efficacy Certificate is attached herewith.**

GUJARAT POLLUTION CONTROL BOARD — ENVIRONMENTAL AUDIT SCHEME

# ADEQUACY & EFFICACY CERTIFICATE

*M/s Indrashil University, Department of Chemical Engineering, , Kalol – 382 721, recognised by the GPCB, Gandhinagar under the Environmental Audit Scheme (Hon'ble High Court of Gujarat, Orders 20/12/1996 & 13/03/1997, modified 16/09/1999), having completed the Environmental Audit of the industry detailed below, hereby certifies that the Environmental Management System (EMS) is* **adequate and efficient** *to achieve the quality of effluents (Air + Wastewater + Solid/Hazardous Waste) as specified in CC&A issued by GPCB, Gandhinagar. | Audit Period: April 2025 – March 2026*

## A. Industry Details

| | |
|---|---|
| **Company** | **M/s. Hindalco Industries Ltd. (Birla Copper Division)** |
| **Factory Location** | Plot No. 2, 2A(109/P) 10, 11 — GIDC, At & Post Dahej-Lakhigam, Tal. Vagra, Dist. Bharuch – 392 130, Gujarat |
| **CC&A Number** | AWH-155156 \| Date of Issue: 27/03/2026 \| Valid up to: 26/01/2032 |
| **Audit Period** | 01 April 2025 to 31 March 2026 |

## B. Manufacturing Production

| No. | Product / By-Product | Consented Capacity | Actual 2025-26 | Compliance |
|---|---|---|---|---|
| 1 | Cathode Copper | 5,00,000 TPA | 422253 | ✓ Complied |
| 2 | Sulphuric Acid (98.4%) | 14,70,000 TPA | 1128263 | ✓ Complied |

| | | | | |
|---|---|---|---|---|
| 3 | Oxygen (Technical) | 7,80,000 TPA | 494608 | ✓ Complied |
| 4 | Gold | 26 TPA | 12.95 | ✓ Complied |
| 5 | Silver | 200 TPA | 126.14 | ✓ Complied |
| 6 | CC Rod | 4,84,000 TPA | 246565 | ✓ Complied |
| 7 | Electric Power | 145.60 MW | 74.38 MW | ✓ Complied |
| 8 | Phosphoric Acid | 3,60,000 TPA | Plant not in operation | ✓ Complied |
| 9 | DAP/NPK Fertilizer | 8,72,000 TPA | Plant not in operation | ✓ Complied |
| 10 | Copper Wire (<4mm) | 60,000 TPA | Nil | ✓ Complied |
| **By-Products** | | **Consented (TPM)** | **Actual 2025-26** | **Compliance** |
| B1 | Selenium | 60 TPM | 3.4142 TPM | ✓ Complied |
| B2 | PGM Concentrate | 0.058 TPM | 0.0396 TPM | ✓ Complied |
| B3 | Granulated Sludge | 65,500 TPM | 63908 TPM | ✓ Complied |

## C. Liquid Effluent Generation

| No. | Effluent Stream | Consented Limit | Actual 2025-26 | Compliance |
|---|---|---|---|---|
| 1 | Industrial Effluent (Trade Effluent) | 4,785 KLD | 3,286.90 KLD | ✓ Complied |

| | | | | |
|---|---|---|---|---|
| 2 | Domestic Wastewater (Sewage) | 974 KLD | 917.0 KLD | ✓ Complied |
| *Disposal: Final treated effluent discharged through dedicated HDPE pipeline into deep sea at 2 km distance with diffuser system. STP (Plant: 500 m³/day) and STP (Township: 700 m³/day) treat domestic sewage.* | | | | |

## D. Solid / Hazardous Waste Generation (24 Categories)

| No. | Type of Hazardous / Solid Waste | Consented Qty. | Actual 2025-26 | Compliance |
|---|---|---|---|---|
| 1 | ETP Waste Sludge & Scrubber Waste | 1,75,095 TPA | 94,192 MT | ✓ Complied |
| 2 | Arsenic Bearing Sludge (As-Cu Precipitate) | 270.80 TPA | 0 | ✓ Complied |
| 3 | Used Oil | 50 KL/Yr | 37.64 KL | ✓ Complied |
| 4 | Spent Electrolyte Solution | 52,560 KL/Yr | 48,001 KL | ✓ Complied |
| 5 | Residue / Dust from SAP | 12 TPA | 0 | ✓ Complied |
| 6 | Spent Catalyst | 160 KL/Yr | 43.740 KL | ✓ Complied |
| 7 | Used Empty Drums | 200 TPA | 42.12 MT | ✓ Complied |
| 8 | Flue Gas Cleaning Residue | 864 TPA | 570.999 MT | ✓ Complied |
| 9 | Spent Resin from DM Plant | 7.5 KL/Yr | 7.4 KL | ✓ Complied |
| 10 | Selenium & Selenium Compound | 6 TPA | 0 | ✓ Complied |
| 11 | Silver Compound | 6 TPA | 0 | ✓ Complied |
| 12 | Inorganic Acid | 66,960 TPA | 0 | ✓ Complied |
| 13 | Dust & Lumpy | 35,000 TPA | 17,868 MT | ✓ Complied |

| | | | | |
|---|---|---|---|---|
| 14 | Copper Converting Slag (C-Slag) | 6,000 TPA | 5,635 MT | ✓ Complied |
| 15 | Liberator Cake | 3,000 TPA | 886.63 MT | ✓ Complied |
| 16 | Copper Revert | 72,000 TPA | 58,538 MT | ✓ Complied |
| 17 | Dore Slag | 2,500 TPA | 1,722.74 MT | ✓ Complied |
| 18 | Lead Anode / Cathode | 80 TPA | 0 | ✓ Complied |
| 19 | Cotton Waste Used | 15 TPA | 16.58 MT | ✓ Complied |
| 20 | Used Insulation | 100 TPA | 60.78 MT | ✓ Complied |
| 21 | Discarded PPE | 5 TPA | 6.65 MT | ✓ Complied |
| 22 | Used Membrane / Filter Cloth and Bags | 20 TPA | 53.20 MT | ✓ Complied |
| 23 | Thermal Plant Evaporation Sludge | 17,520 TPA | 1,981.06 MT | ✓ Complied |
| 24 | SWRO Clarifier Sludge | 9,490 TPA | 1,398 MT | ✓ Complied |

## E. Air Emissions

| Source | Stack Parameters | Status |
|---|---|---|
| **Flue Gas Stacks** | As per Annexure – 16 & 18 | **Adequate & Efficacious** |
| **Process Stacks** | As per Annexure – 17 & 18 | **Adequate & Efficacious** |
| **Air Pollution Control Measures** | Bag Filters, ESP — revamped during major shutdown | **Operational & Effective** |
| **Ambient Air Quality** | Monitored periodically — Refer Annexure – 19 | **Within GPCB norms** |

*This certificate is valid for the audit period April 2025 – March 2026 only. It is subject to automatic cancellation upon any change in product profile/capacity, quality and quantity of effluent emission (Air + Wastewater + Solid/Hazardous Waste) and efficiency of EMS equipment. This certificate forms an integral part of the Environmental Audit Report.*

**Coordinator, Environment Consultancy Cell**

**Indrashil University, Kalol – 382 721**

Date: _____ Place: Kalol, Gujarat

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