File No: J-11011/927/2008-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
***

Date **04/11/2026**

To,

M/s. HINDALCO INDUSTRIES LTD
Birla copper Taluka Vagra, Village Dahej, Bharuch (Gujarat) , Lakhigam and Dahej, BHARUCH, GUJARAT, Dahej SEZ- II, 392130
E-mail: sanjay.k@adityabirla.com

Subject: Correction in the Environmental Clearance granted to M/s. Hindalco Industries Limited (Unit: Birla Copper), located at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat vide letter dated 10.10.2026 - **Consideration of Corrigendum in EC – Reg.**

Sir/Madam,

This is in reference to your application for Corrigendum to EC submitted to Ministry vide proposal number IA/GJ/IND1/595314/2026 dated 13/10/2026.

2. The particulars of clearance granted against which the corrigendum is sought are as under:

(i) Unique Identification No.	EC26A1005GJ5364444N
(ii) File No.	J-11011/927/2008-IA-II(I)
(iii) Clearance Type	Application of corrigendum- EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous)
(vi) Name of Project	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; CCR Plant 4.84 to 3.64 LTPA; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)
(vii) Name of Company/Organization	HINDALCO INDUSTRIES LIMITED

(viii) Location of Project (District, State)	GUJARAT
(ix) Issuing Authority	MOEF&CC

Details submitted by Project proponent

3. **Details/Chronology of permissions:**

• Environmental Clearance has been accorded from MoEFCC vide F.No. J-11011/927/2008-IA-II(I) dated 10.10.2026 to M/s. Hindalco Industries Limited (Unit: Birla Copper) for Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; CCR Plant 4.84 to 3.64 TPA; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities by M/s. Hindalco Industries Limited (Unit: Birla Copper), located at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat.

• M/s. Hindalco Industries Limited (Unit: Birla Copper) made an online application vide proposal no. IA/GJ/IND1/595314/2026 dated 13.10.2026 along with the prescribed Form-13 (CAF, Form-I Part A, B & C) seeking corrigendum in the Environmental Clearance accorded by the Ministry vide letter No. J-11011/927/2008-IA-II(I) dated 10.10.2026 w.r.t. rectify a typographical error in the subject line and project name on Page 1 and Point No. 7(i) on Page 2, by replacing “CCR Plant 4.84 to 3.64 TPA” with “CCR Plant 4.84 to 3.64 LTPA”.

4. **Details of the Corrigendum Sought:**

Reference of approved letter (Product details/ configuration/ conditions etc.)	**Sl. No., Para**	**Description as per approved clearance**	**Corrigendum sought**
Project Name in EC letter dated 10.10.2026	Project Name, Page 1	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 TPA;** Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 LTPA;** Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)

Para 7(i) of EC letter dated 10.10.2026	Point No. 7(i) on Page 2	The instant proposal is for expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 TPA**; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities].	The instant proposal is for expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 LTPA**; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities].
Address of EC letter dated 10.10.2026	Address of EC letter, Page 1	M/s. HINDALCO INDUSTRIES LTD **Biral** copper Taluka Vagra, Village Dahej, Bharuch (Gujarat) , Lakhigam and Dahej, BHARUCH, GUJARAT, Dahej SEZ- II, 392130 E-mail: sanjay.k@adityabirla.com	M/s. HINDALCO INDUSTRIES LTD **Birla** copper Taluka Vagra, Village Dahej, Bharuch (Gujarat) , Lakhigam and Dahej, BHARUCH, GUJARAT, Dahej SEZ- II, 392130 E-mail: sanjay.k@adityabirla.com
subject line of EC letter dated 10.10.2026	subject line, page 1	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 TPA**; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; **CCR Plant 4.84 to 3.64 LTPA**; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)

Decision of MoEF&CC

5. The undersigned is directed to inform that Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 as amended, and hereby accords corrigendum to the Environmental Clearance granted vide letter No. J-11011/927/2008-IA-II(I) dated 10.10.2026, for rectification of the typographical errors in the subject line, project name, paragraph 7(i) and address, as detailed in paragraph 4 above.

6. All other terms and conditions mentioned in the original Environmental Clearance letter No. J-11011/927/2008-IA-II(I) dated 10.10.2026 shall remain unchanged.

7. This issues with the approval of the Competent Authority.

(Dr. Sonu Singh)
Scientist 'E'/Additional Director
Tel: 011-20819346
E-mail: sonu.singh@nic.in

Copy to: -

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, Gandhinagar - 382 010. Gujarat.
2. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office, Gandhi Nagar A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle,Sector-10A, Gandhi Nagar-382010
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Chief Wildlife Warden, Forests & Environment Department, Government of Gujarat, A/1, Aranya Bhavan, Opp. St. Xaviers School, Near Ch-3 Circle, Sector -10, Gandhinagar.
5. The Chairman, Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10A, Gandhinagar-382010.
6. The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. The District Collector, Collector Office, Bharuch District, Gujarat.
8. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
9. Guard File/Monitoring File/Website/Record File/Parivesh Portal.

Copy To

N/A

Additional EC Conditions

Not Applicable.

File No: J-11011/927/2008-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
***

Date **10/10/2026**

To,

M/s. HINDALCO INDUSTRIES LTD
Biral copper Taluka Vagra, Village Dahej, Bharuch (Gujarat) , Lakhigam and Dahej, BHARUCH, GUJARAT, Dahej SEZ- II, 392130
E-mail: sanjay.k@adityabirla.com

Subject: **Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; CCR Plant 4.84 to 3.64 TPA; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities by M/s. Hindalco Industries Limited (Unit: Birla Copper), located at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat- Consideration of EC - Reg.**

Sir/Madam,

This is in reference to your application submitted to Ministry vide proposal number IA/GJ/IND1/571757/2026 dated 21/05/2026 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC26A1005GJ5364444N
(ii) File No.	J-11011/927/2008-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous),1(d) Thermal Power Plants,8(b) Townships/ Area Development Projects / Rehabilitation Centres,1(d) Thermal Power Plants,1(d) Thermal Power Plants
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	Expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; CCR Plant 4.84 to 3.64 TPA; Gold 26 to 53 TPA, Silver

	200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities] at Vill: Lakhigam & Dahej, Tal: Vagra, Dist: Bharuch, Gujarat by Hindalco Industries Limited (Unit: Birla Copper)
(viii) Name of Company/Organization	HINDALCO INDUSTRIES LTD
(ix) Location of Project (District, State)	BHARUCH, GUJARAT
(x) Issuing Authority	
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (Ferrous and non-ferrous) and 1(d) Thermal Power Plants, under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

4. The instant proposal is considered in 29th meeting of EAC (Industry-1) held on 10th -12th June 2026 wherein after detailed deliberations, the committee recommended the proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions. The EAC proceedings of the said meeting can be seen using the following web link: at https://parivesh.nic.in.

5. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1 Sector) are at **Annexure-II**.

6. The Unit configuration and capacity of the proposed project is at **Annexure-III**.

7. The EAC, in its 29th meeting of EAC (Industry-1) held on 10th -12th June 2026 inter-alia, deliberated the following:

i. The instant proposal is for expansion of Copper Smelter Complex [Copper Anode 5.75 to 8.92 LTPA, Copper Cathode 5 to 8.5 LTPA, H2SO4 Plant 14.7 to 26.59 LTPA; CCR Plant 4.84 to 3.64 TPA; Gold 26 to 53 TPA, Silver 200 to 450 TPA by Installing PMR plants, Oxygen Plant 7.8 to 11.25 LTPA; CPP 99.85 to 80 MW, WHRB 45.75 to 22 MW and GTCC 35 MW; RBD Plant 60000 TPA & Modernization of existing facilities].

ii. The existing project was accorded environmental clearance vide letter no J.11011/7/94-IA II dated 14.03.1995, J-11011/81/2000-IA II (I) dated 08.01.2002, J-11011/85/2002/-IA II (I) dated 10.02.2004, J-11011/220/2004-IA II (I) dated 18.03.2005, J-11011/927/2008-IA-II(I) dated 11.02.2009, J 11011/927/2008-IA II (I) dated 23.02.2017 and Consolidated Consent and Authorization for the existing unit was accorded by Gujarat Pollution Control Board vide CCA NO: AWH-155156 dated 27.03.2026. The validity of CCA is up to 26.01.2032.

iii. The Committee noted the submissions of the project proponent regarding the transfer of earlier Environmental Clearances dated 14.03.1995 and 08.01.2002 from the erstwhile entities to M/s Hindalco Industries Limited, which were considered in the 8th meeting of the EAC (Industry-1) held on 24.07.2025, and recommended for transfer. The Committee further noted that the formal transfer order from MoEF&CC is yet to be issued. After detailed deliberation, the Committee opined that the instant proposal may be considered for EC recommendation, subject to submission/uploading of the formal Environmental Clearance transfer letters issued by MoEF&CC on the PARIVESH portal.

iv. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the

project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

v. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

vi. The EAC also took into consideration the drone survey of the project site and kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH and made following deliberations accordingly.

vii. The Committee noted that the project is a brownfield proposal. Accordingly, SPCB furnished its comments vide letter dated 29.05.2026. The EAC apprised the proposal taking into consideration the comment of SPCB and the mitigation measures proposed by the project proponent w.r.t. the proposed site and nearby sensitive receptors. The EAC also reviewed the compliance statement submitted by the project proponent regarding aspects such as land acquisition status / presence of streams or nallahs within the site / validity of baseline data / validity of the Certified Compliance Report / validity of the Public Hearing (PH), among other relevant factors. Upon examination, the Committee found the submission satisfactory for further appraisal of the proposal.

viii. The total plant area is 341.65 Hectare [Forest Land: 38.4775, Industrial land.: 303.173 Ha]. Complete land is under the possession of the company. Out of the total plant area of 341.65 ha, 38.4775 ha is forest land, while 303.173 ha is industrial land allotted by Gujarat Industrial Development Corporation (GIDC). Forest clearances have been obtained for the 38.4775 ha in multiple stages, including 17.5 ha for a copper smelter project in 1996, 0.245 ha for an underground stormwater pipeline in 1999, 4.7325 ha for smelter expansion in 2005, and 16.00 ha for a 60 MW power plant, DAP/NKP, and PAP projects along with copper smelter expansion in 2013.

ix. The Committee noted that out of the total plant area of 341.65 ha, an area of 38.4775 ha comprises forest land for which Stage-II Forest Clearances have been obtained from time to time for various components of the project, including 17.5 ha (31.08.1996) for the Copper Smelter Project, 0.245 ha (31.03.1999) for laying of underground storm water pipeline, 4.7325 ha (28.12.2005) for expansion of the Copper Smelter Project, and 16.00 ha (23.07.2013) for setting up of 60 MW Power Plant and associated facilities in favour of the project proponent/erstwhile entities. However, the Committee noted the submissions of the project proponent regarding the status of transfer of Forest Clearances dated 31.03.1999 and 31.08.1996 from the erstwhile entity to M/s Hindalco Industries Limited, which have been applied for on the PARIVESH portal and recommended by the Divisional Forest Officer, Bharuch Sub-Division, and are presently under consideration with the Nodal Officer, Forest Department, Government of Gujarat. After detailed deliberation, opined that the instant proposal may be considered for EC recommendation, subject to submission/uploading of the formal Forest Clearance transfer letter issued by MoEF&CC on the PARIVESH portal and all conditions stipulated in the respective Forest Clearances shall be complied with in letter and spirit.

x. The Committee noted the presence of habitation and other environmentally sensitive areas within the study area of the project site. In this regard, it is reported that nearby habitations include three villages, namely Lakhigam (0.8 km in South direction), Dahej (1.5 km in NE direction), and Vadiya (1.9 km in NE direction). Educational institutions in the vicinity include Government Secondary and Higher Secondary School, Lakhigam (0.4 km in South direction) and Lakhigam Primary School (0.8 km in South direction). Healthcare facilities in the study area comprise Arogya (within the plant site), PHC Centre, Lakhigam (0.67 km in SSE direction), and RIL-DMD Occupational Health Centre (1.55 km in ESE direction). Further, eight places of worship are located within the study area, namely Laxmi Narayan Temple (within the plant site), Makhneshwar Mahadev Temple (1.5 km in NNE direction), Bhutnath Sikotarmaa Mandir (1.5 km in NNW direction), Narmada Samudra Panchakroshi Parikrama (1.7 km in SSW direction), Mahalakshmi Temple (1.7 km in NE direction), Nilkanth Mahadev Temple (1.78 km in East direction),

Lootneshwar Mahadev Temple (1.9 km in SW direction), and Shri Harsidhi Temple (2.0 km in ENE direction). Forest areas include Dahej Reserved Forest (core zone, partly within the plant site in NW direction) and Lakhigam Reserved Forest (core zone, partly within the plant site in SW direction). In addition, water bodies within the study area include a seasonal drain passing through the plant site (from South towards western direction) and Lakhigam Lake (0.7 km in South direction). The Committee opined that the Project Proponent shall identify, village-wise, all sensitive receptors including habitations, places of worship, educational institutions, water bodies, and other vulnerable locations, and shall formulate and implement appropriate environmental safeguard and mitigation measures to minimise adverse impacts of project activities. A village-wise mitigation plan shall be prepared and implemented, along with a separate, clearly defined budget allocation for each affected village.

xi. The EAC further opined that the project proponent shall, in consultation with a reputed public health institution/ agency, carry out a baseline and periodic epidemiological study of the nearby villages to assess potential health impacts arising from project activities. Based on the findings, the project proponent shall establish and implement a health monitoring system for regular medical check-ups of the local population, and take suitable preventive and remedial measures to address any adverse health outcomes, with records maintained and reported to the concerned regulatory authorities.

xii. A seasonal drain passes through the plant flowing from South towards western direction. NOC for seasonal drain (passing through the plant site) has been issued by Medium Irrigation Project Division, Ankleshwar vide letter no. No. MIPD/Ank/Hindalco/Seasonal Drain Flow/NOC/ 244 dated 15.05.2025. The Committee, after detailed deliberation emphasized that the project proponent shall strictly adhere to the conditions stipulated in the NOC. Also, Lakhigam Lake is at 0.7 km in South along with other sensitive areas within the study area of the project site. The Committee further noted that a detailed study on seasonal drainage conservation, soil conservation and erosion control measures has been carried out through SVNIT, Surat, and appropriate mitigation measures have been recommended. After detailed deliberation, the Committee emphasized that the project proponent shall ensure strict implementation of the recommendations of the study, including maintenance of adequate buffer zone, preservation of natural drainage channels, adoption of nature-based erosion control measures, and regular monitoring and maintenance of the drainage system, so as to ensure that the natural hydrological regime is not adversely impacted due to the project.

xiii. The project proponent submitted that the jetty is interlinked with the plant and has a handling capacity of 50,00,000 TPA. The Environmental Clearance for the smelter plant along with captive jetty facilities was originally granted on 14th March, 1995 in favour of M/s Indo Gulf Chemicals and Fertilizers Corporation Limited, and the plant was commissioned in 1998. Subsequently, the jetty was transferred to Dahej Harbours & Infrastructure Limited vide letter no. J-11011/7/94-IA.II[I] dated 03rd January, 2000. At present, the jetty is being utilized for import of raw materials and export of finished products. The project proponent submitted that the existing jetty capacity is adequate to cater to the proposed expansion. After detailed deliberation, the Committee observed that the project proponent shall ensure that all operations associated with the jetty are carried out in compliance with the applicable environmental norms and existing EC conditions.

xiv. The project proponent submitted that the Environmental Clearance dated 14.03.1995 includes CRZ clearance for the project, and therefore no separate CRZ clearance was required at the time. It was further submitted that the requirement of obtaining recommendation from the State Coastal Zone Management Authority (GCZMA) was not in place at the time of grant of EC. The project proponent also informed that the marine outfall and discharge are presently permitted under the Consent to Establish/Operate issued by GPCB dated 27.03.2026. After detailed deliberation, the Committee emphasized that the project proponent shall ensure compliance with all applicable CRZ Notifications, as amended from time to time, and obtain necessary approvals, if any required, from the concerned authorities for marine outfall and discharge.

xv. The overall water requirement for the complex after modernization and expansion will be limited to 46098 m3 per day (10.14 MGD), which will be fulfilled from GIDC and Desalination. No additional permission for water withdrawal will be required for the proposed installation. No ground water is being/ will be abstracted by the plant.

The EAC opined that the PP shall secure the required approval from the appropriate authority.

xvi. The Committee also deliberated on the public hearing issues, and the socio-economic Development plan, with allocation of Rs. 153.50 crores for implementation of the commitments made during Public Hearing and found it satisfactory.

xvii. The EAC opined that PP shall implement skill development programs in a way to align with relevant Government initiatives (like Mission LiFE, ODOP, GSDP etc.) to enhance employability and livelihood opportunities for local communities. These programs shall be designed in consultation with the concerned authorities, such as the District Skill Development Mission, State Government agencies, or other relevant institutions. With regard to the above, PP shall chalk out a detailed action plan and monitoring mechanism, which shall include details target beneficiaries, training modules, expected outcomes, and periodic progress reports shall be maintained and submitted to RO MoEFCC.

xviii. The PP reported that existing green belt has been developed in 121.5 ha area which is about 35.56% of the total project area of 341.65 ha with total sapling of 218700 Trees. Proposed greenbelt will be developed in 0.09 ha which is about 0.03 % of the total project area. Thus, total of 121.59 ha area (35.59 % of total project area) will be developed as greenbelt. Total no. of 90406 saplings will be planted and nurtured in 121.59 hectares in one year. The EAC deliberated on the greenbelt action plan and is of the opinion that greenbelt shall be developed in 121.59 ha area (35.59 % of total project area) as per the commitment, within a period of one year and maintained in conformity with MoEF&CC's OM vide F.No. IA3-22/14/2025-IA.III (E-275538) dated 29.10.2025.

xix. The committee deliberated on the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. The Committee noted the proposed decarbonization roadmap aiming to achieve Net Zero emissions by 2050 with defined interim targets. After deliberation, the Committee emphasized that the project proponent shall implement the roadmap in a time-bound manner and submit periodic progress reports, with specific focus on renewable energy integration, reduction in coal-based power dependency, and adoption of cleaner technologies to RO MoEFCC.

xx. The committee deliberated on the certified compliance report of IRO and found it to be satisfactory.

xxi. The Committee noted that the Solid Waste Management Rules, 2026 have been notified and came into force with effect from 1st April, 2026. The EAC opined that the Solid Waste Management Plan for the proposed project shall be formulated in consonance with the provisions of the Solid Waste Management Rules, 2026, and the same shall be implemented.

xxii. The Committee also deliberated upon the comments of the State Pollution Control Board and emphasized that the same shall be duly addressed and incorporated in the Environmental Clearance conditions, as applicable.

xxiii. The Committee noted the submissions regarding modernization of the PMR unit with adoption of Kaldo furnace-based technology and phased implementation plan. The Committee appreciated the proposed technological upgradation aimed at improving environmental performance and reducing emissions. The Committee emphasized that the existing units shall be decommissioned prior to commissioning of the new units and the proposed timeline shall be adhered to strictly.

xxiv. The Committee noted the Environmental Cost Benefit Analysis submitted by the project proponent. The Committee observed that significant allocation has been proposed towards environmental management measures and emphasized that the same shall be strictly implemented to ensure that environmental safeguards outweigh the potential impacts of the project.

xxv. The Committee noted the detailed procedure for handling and usage of Thiourea in the electrolytic refining process. After deliberation, the Committee emphasized that adequate safety measures, proper storage, handling

protocols, and occupational health safeguards shall be ensured during handling and usage of chemicals.

xxvi. The Committee noted the mitigation measures proposed to control SO_2 emissions and prevent acid rain scenarios. The Committee emphasized that best available technologies and adequate emission control systems shall be installed and operated efficiently to ensure compliance with prescribed emission norms at all times.

xxvii. The Committee noted the emergency preparedness plan submitted for Sulphuric Acid Plant and PMR units. The Committee emphasized that a robust disaster management plan shall be implemented, including regular mock drills, training of personnel, and coordination with local authorities to address any emergency situations effectively.

xxviii. The Committee noted the undertaking submitted by the project proponent to achieve Zero Liquid Discharge (ZLD) by June 2029. The Committee emphasized that the same shall be implemented within the stipulated timeline and compliance shall be ensured as per the commitment.

xxix. The EAC deliberated that the PP may establish a merit-cum-means educational support scheme for deserving students from economically weaker sections of the local/project-affected area. The scheme may provide financial assistance for higher education, including support to students securing admission to premier institutions such as IITs, IIMs, Government Medical Colleges, and other reputed institutions in India and abroad, covering tuition fees and other essential educational expenses

xxx. The EAC deliberated on the other written submission of the project proponent and found it satisfactory.

xxxi. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

xxxii. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

xxxiii. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

8. The EAC (Industry-1 Sector), in its 29th meeting of EAC (Industry-1) held on 10th -12th June 2026, based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the proposal for grant of Environment Clearance subject to stipulation of specific and general EC conditions as detailed in the point below.

9. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1 Sector) hereby decided to grant **Environment Clearance for instant proposal of M/s. Hindalco Industries Limited (Unit: Birla Copper)** under the provisions of EIA Notification, 2006 subject to the

following specific conditions and general conditions (**Annexure-I).**

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

12. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

13. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

14. This issues with approval of the competent authority.

(Dr. Sonu Singh)
Scientist 'E'/Additional Director
Tel: 011-20819346
E-mail: sonu.singh@nic.in

Copy to: -

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, Gandhinagar - 382 010. Gujarat.
2. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office, Gandhi Nagar A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle,Sector-10A, Gandhi Nagar-382010
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Chief Wildlife Warden, Forests & Environment Department, Government of Gujarat, A/1, Aranya Bhavan, Opp. St. Xaviers School, Near Ch-3 Circle, Sector -10, Gandhinagar.
5. The Chairman, Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10A, Gandhinagar-382010.
6. The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. The District Collector, Collector Office, Bharuch District, Gujarat.
8. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
9. Guard File/Monitoring File/Website/Record File/Parivesh Portal.

Copy To

1. The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
2. The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, mscb.cpcb@nic.in
3. The Monitoring Cell MoEFCC, Compliance & Monitoring Division, Indira Paryavaran Bhawan Jor Bagh Road New Delhi, South, Delhi, moefcc-monitoring@gov.in

Annexure 1

Specific EC Conditions for (Metallurgical Industries (Ferrous And Non Ferrous))

1. Specific

S. No	EC Conditions
1.1	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
1.2	The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
1.3	The project proponent shall utilize modern technologies for capturing carbon emission and shall also develop adequate carbon sink/ carbon sequestration resources with an aim to meet the carbon neutrality mission in a time bound manner. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
1.4	All the directions and environmental safeguards prescribed by the SPCB vide its letter dated 29.05.2026 for the instant proposal in pursuance to the MoEF&CC O.M. dated 14.01.2025 and its subsequent amendment shall be complied with. Compliance in this regard shall be submitted to the Regional Office of MoEF&CC/SPCB along with the six-monthly compliance report.
1.5	Nearby habitations include three villages, namely Lakhigam (0.8 km in South direction), Dahej (1.5 km in NE direction), and Vadiya (1.9 km in NE direction). Educational institutions in the vicinity include Government Secondary and Higher Secondary School, Lakhigam (0.4 km in South direction) and Lakhigam Primary School (0.8 km in South direction). Healthcare facilities in the study area comprise Arogya (within the plant site), PHC Centre, Lakhigam (0.67 km in SSE direction), and RIL-DMD Occupational Health Centre (1.55 km in ESE direction). Further, eight places of worship are located within the study area, namely Laxmi Narayan Temple (within the plant site), Makhneshwar Mahadev Temple (1.5 km in NNE direction), Bhutnath Sikotarmaa Mandir (1.5 km in NNW direction), Narmada Samudra Panchakroshi Parikrama (1.7 km in SSW direction), Mahalakshmi Temple (1.7 km in NE direction), Nilkanth Mahadev Temple (1.78 km in East direction), Lootneshwar Mahadev Temple (1.9 km in SW direction), and Shri Harsidhi Temple (2.0 km in ENE direction). Forest areas include Dahej Reserved Forest (core zone, partly within the plant site in NW direction) and Lakhigam Reserved Forest (core zone, partly within the plant site in SW direction). Project Proponent shall implement a village-wise plan for implementation of environmental safeguards and mitigation measures for habitations falling within 3 km radial distance. The plan shall address environmentally sensitive receptors, covering villages, places of worship, educational institutions, hospitals, water bodies, forests, ASI site, and other environmentally vulnerable locations. The plan shall address each receptor individually to address adverse impacts of project activities. The PP shall also include some of these locations in its environmental monitoring programme.
1.6	Project Proponent shall, in consultation with a reputed public health institution/agency, carry out a baseline and periodic epidemiological study of the nearby villages to assess potential health impacts arising from project activities. Based on the findings, the project proponent shall establish and implement a health monitoring system for regular medical check-ups of the local population, and take suitable preventive and remedial measures to address any adverse health outcomes, with records maintained and reported to the concerned regulatory authorities.

S. No	EC Conditions
1.7	The project proponent shall strictly adhere to the conditions stipulated in the NOC issued by the Medium Irrigation Project Division, Ankleshwar vide letter no. MIPD/Ank/Hindalco/Seasonal Drain Flow/NOC/244 dated 15.05.2025 for the seasonal drain passing through the project site, and no obstruction, diversion or alteration of the natural flow of the drain shall be carried out. A minimum buffer zone as recommended in the study shall be maintained and natural drainage channels shall be preserved without any encroachment or concretization. The project proponent shall implement all recommendations of the study carried out by SVNIT, Surat on seasonal drainage conservation, soil conservation and erosion control measures, including adoption of nature-based solutions and erosion control measures. Regular monitoring, maintenance and cleaning of the drainage system shall be ensured so as to maintain the natural hydrological regime, and adequate safeguards shall be implemented to protect nearby water bodies including Lakhigam Lake and other sensitive receptors within the study area.
1.8	Project proponent shall ensure that all operations associated with the jetty are carried out in compliance with the applicable environmental norms and existing EC conditions.
1.9	Project proponent shall ensure compliance with all applicable CRZ Notifications, as amended from time to time, and obtain necessary approvals, if any required, from the concerned authorities for marine outfall and discharge.
1.10	The overall water requirement for the complex after modernization and expansion will be limited to 46098 m3 per day (10.14 MGD), which will be fulfilled from GIDC and Desalination. No additional permission for water withdrawal will be required for the proposed installation. PP shall secure the required approval from the appropriate authority. No ground water shall be abstracted by the plant.
1.11	Green Belt shall be developed and maintained in 121.59 ha area (35.59 % of total project area) as per the commitment, within a period of one year and maintained in conformity with MoEF&CC's OM vide F.No. IA3-22/14/2025-IA.III (E-275538) dated 29.10.2025. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
1.12	The PP shall undertake plantation, in compliance to MoEFCC OM dated 24.07.2024, in the earmarked area as a part of tree plantation campaign 'Ek Ped Maa Ke Naam' Campaign and the details of the same shall be uploaded on MeriILiFE portal at (https://merilife.nic.in).
1.13	All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented, which is amounting to approx. Rs. 153.50 Crores. The action plan shall also cover activities related to (i) promotion of environmental education and awareness (including green skills), and (ii) sub-plan to address the vulnerable sections (such as the elderly, children, pregnant women, persons with disabilities, and the terminally ill). An institutional mechanism shall be developed for monitoring the implementation of the commitments made, which shall also manage and address public grievances. The progress of implementation of PH Action plan and grievance redressal shall be submitted regularly to the Regional Office of MoEF&CC.
1.14	PP shall implement the skill development programs, in alignment with relevant Government initiatives/ programmes (like Mission LiFE, ODOP, GSDP etc.) to enhance employability and livelihood opportunities for local communities. These programs shall be designed in consultation with the concerned authorities, such as the District Skill Development Mission, State Government agencies, or other relevant institutions. A detailed action plan and monitoring mechanism (covering

S. No	EC Conditions
	target beneficiaries, training modules, and expected outcomes) be prepared for the above. Periodic progress reports shall be maintained, and submitted to RO MoEFCC.
1.15	The Project Proponent shall formulate and implement a merit-based educational support scheme for deserving students from economically weaker sections of the local/project-affected area. The scheme shall provide financial assistance for higher education to eligible students securing admission in recognized premier/reputed institutions, including IITs, IIMs, Government Medical Colleges, and other recognized institutions in India or abroad. The assistance may include tuition fees and other essential academic expenses.
1.16	The project proponent shall implement the proposed decarbonization roadmap aimed at achieving Net Zero emissions by 2050 in a time-bound manner, with adherence to the defined interim targets. The project proponent shall prioritize integration of renewable energy, reduction in dependency on coal-based power, and adoption of cleaner and energy-efficient technologies. Periodic progress reports on implementation of the decarbonization plan, including status of carbon footprint reduction and mitigation measures, shall be submitted to the Regional Office of MoEF&CC as per prescribed frequency.
1.17	The Solid Waste Management Plan for the proposed project shall be implemented in accordance with the Solid Waste Management Rules, 2026 (effective from 1st April, 2026), as amended from time to time. Detailed provisions for segregation, collection, storage, processing, treatment and disposal of solid waste, along with institutional mechanism and compliance framework, shall be prepared and implemented.
1.18	The Project Proponent shall ensure environmentally sound handling, storage, transportation, recycling, treatment and final disposal of all hazardous/toxic wastes generated from the project. The PP shall not absolve itself of responsibility merely by handing over such wastes to any third-party recycler, co-processor, TSDF operator or disposal agency. The PP shall exercise extended responsibility and due diligence to ensure that such third-party agencies are duly authorised by the concerned SPCB/PCC and that the wastes are recycled, treated or disposed of strictly in accordance with the applicable Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended, and other applicable statutory provisions. Proper records, manifests, agreements, authorisations and end-use/final disposal certificates shall be maintained and submitted to the concerned Regional Office of MoEF&CC and SPCB/PCC along with the six-monthly compliance report.
1.19	PP shall implement the proposed modernization of the PMR unit with adoption of Kaldo furnace-based technology in a phased and time-bound manner, ensuring that the existing units are completely decommissioned prior to commissioning of the new units. The project proponent shall ensure that the technological upgradation leads to improved environmental performance and reduction in emissions, and the implementation timeline as proposed shall be strictly adhered to without any deviation.
1.20	PP shall ensure that the handling and usage of Thiourea and other chemicals in the electrolytic refining process are carried out in accordance with established safety protocols, with adequate provisions for safe storage, controlled handling, and adherence to standard operating procedures. Necessary occupational health and safety measures, including use of appropriate personal protective equipment (PPE), training of personnel, and emergency response preparedness, shall be implemented to prevent any risk to workers and the surrounding environment.

S. No	EC Conditions
1.21	The project proponent shall implement adequate mitigation measures to control SO_2 emissions and prevent acid rain scenarios by adopting best available technologies and installing efficient emission control systems. The project proponent shall ensure that all such systems are operated and maintained effectively at all times so as to comply with the prescribed emission norms without any exceedance.
1.22	The project proponent shall implement a comprehensive disaster management and emergency preparedness plan for the Sulphuric Acid Plant and PMR units, including regular mock drills, training of personnel, and effective coordination with local authorities. The plan shall be periodically reviewed and updated to ensure preparedness for handling any emergency situations.
1.23	The Project Proponent shall prepare and implement a Standard Operating Procedure (SOP) for safe and systematic shift change of labour/workers engaged in PMR plants. The SOP shall be prepared in consultation with reputed technical institutions such as IITs/NITs or any other competent institution and shall include provisions for work-rest cycles, occupational health and safety, exposure control, emergency response, use of PPE, handover protocols and monitoring of worker's health. The SOP shall be implemented within six months from the date of grant of EC.
1.24	PP shall achieve Zero Liquid Discharge (ZLD) for the entire plant within the stipulated timeline of June 2029 as committed, and ensure full compliance with the same. No untreated or partially treated effluent shall be discharged outside the plant premises, and the progress towards achieving ZLD shall be monitored and reported to the Regional Office of MoEF&CC.
1.25	PP shall Install CO sensors with alarms at strategic locations in the Plant.
1.26	PP shall implement cleaner production and waste minimisation measures, and initiate coordinated action on activities of environmental awareness, education and conservation (covering plantation, solar energy, water harvesting, waste management, green skills etc.) through a dedicated institutional mechanism. The actions shall be monitored reported to RO MoEFCC on regular basis through the self compliance reporting mechanism.
1.27	PP shall establish a dedicated in-house Research & Development (R&D) cell aimed at identifying, evaluating, and implementing emerging clean technologies. The focus of this cell will be on enhancing process efficiency, minimizing waste generation, and promoting circular economy practices within the plant operations. The effectiveness of the R&D initiatives shall be reviewed periodically, and outcomes contributing to sustainability shall be documented and reported
1.28	The project proponent shall conduct periodic soil health monitoring in and around the plant premises, including agricultural fields within a 5 km radius, to assess potential impacts from industrial operations. Soil samples shall be analyzed at least twice a year for parameters including pH, electrical conductivity, organic carbon, macronutrients (N, P, K), micronutrients (Zn, Fe, Mn, Cu), and heavy metals (As, F, Pb, Hg, Cd, Cr). The results shall be recorded, compiled and submitted to the State Pollution Control Board and Regional Office of MoEF&CC, and remedial measures shall be undertaken in case of any adverse trends.
1.29	PP shall implement a Green Mobility Plan within the plant premises in a phased manner, including the use of electric transport for employees and materials, to minimize vehicular emissions and congestion.
1.30	PP shall install windscreen barriers/ wind-breaking walls along village-facing boundaries to reduce

S. No	EC Conditions
	dust dispersion.
1.31	All the conditions stipulated in the earlier Environmental Clearances granted to the project shall continue to remain applicable, and shall be complied with by the project proponent, except in cases where such ECs have been formally superseded. The conditions stipulated in the present Environmental Clearance shall be in addition to the existing conditions and, wherever any condition of the earlier Environmental Clearances is modified, updated or superseded by the present Environmental Clearance, the latest condition shall prevail to that extent. Further, all existing as well as proposed/expanded/modernized units shall comply with the applicable environmental standards, norms, notifications and guidelines issued by the Ministry, CPCB and other statutory authorities from time to time, as amended.

Standard EC Conditions for (Metallurgical Industries (ferrous and non ferrous))

1. Statutory Compliance

S. No	EC Conditions
1.1	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.
1.2	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2.2	The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
2.3	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

S. No	EC Conditions
2.4	Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
2.5	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.6	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
2.7	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
2.8	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
2.9	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.10	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
2.11	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
2.12	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
2.13	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
2.14	Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
2.15	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm3 and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
2.16	Following additional arrangements to control fugitive dust shall be provided: a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.
2.17	During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible

S. No	EC Conditions
	limits as per Indian Factories Act, 1948 shall be implemented.
2.18	The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.2	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3.3	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
3.4	Water meters shall be provided at the inlet to all unit processes in the plants.
3.5	The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.
3.6	The proposed project shall be designed as Zero Liquid Discharge Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.
3.7	All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
3.8	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
3.9	Air Cooled condensers shall be used in the captive power plant.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
4.3	PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
5.2	Provide LED lights in their offices and residential areas.

6. Waste Management

S. No	EC Conditions
6.1	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
6.2	Kitchen waste shall be composted or converted to biogas for further use.
6.3	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
6.4	The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
6.5	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

7. Green Belt

S. No	EC Conditions
7.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
7.2	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
7.3	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

8. Public Hearing And Human Health Issues

S. No	EC Conditions
8.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
8.2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
8.3	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
8.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

9. Environment Management

S. No	EC Conditions
9.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
9.2	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

S. No	EC Conditions
9.3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
9.4	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
10.5	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
10.6	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.7	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.8	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
10.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

S. No	EC Conditions
10.10	The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
10.11	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
10.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.13	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
10.14	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.15	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.16	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.17	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Additional EC Conditions

Not Applicable.

Details of the proposal are as per the EIA/EMP report

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>The total plant area is 341.65 ha, out of which 327 ha is existing land & 14.65 ha is additional land.</td><td>GIDC Industrial Land: 303.173
Forest Land: 38.4775 Ha.</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The complete land area is already under the possession of the company.</td><td>100% Land is under Possession</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Plant Site: Nil
Study Area: Total 3 Habitations are present in proximity (2 km radius) of the plant site.
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Lakhigam</td><td>0.8 km</td><td>South</td></tr>
<tr><td>Dahej</td><td>1.5 km</td><td>NE</td></tr>
<tr><td>Vadiya</td><td>1.9 km</td><td>NE</td></tr>
</table>
Total 12 habitations are present within the 10 km radius of the study area.</td><td>No R&R involved in this expansion project.</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>S. No</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>21°42'17.29"N</td><td>72°31'53.06"E</td></tr>
<tr><td>2.</td><td>21°42'29.79"N</td><td>72°32'13.10"E</td></tr>
<tr><td>3.</td><td>21°42'12.90"N</td><td>72°33'7.54"E</td></tr>
<tr><td>4.</td><td>21°42'42.66"N</td><td>72°33'19.21"E</td></tr>
<tr><td>5.</td><td>21°42'41.48"N</td><td>72°33'32.34 "E</td></tr>
<tr><td>6.</td><td>21°42'15.92"N</td><td>72°33'32.81"E</td></tr>
<tr><td>7.</td><td>21°42'19.01"N</td><td>72°33'41.02"E</td></tr>
<tr><td>8.</td><td>21°42'17.93"N</td><td>72°33'44.87"E</td></tr>
<tr><td>9.</td><td>21°42'23.06"N</td><td>72°34'8.83"E</td></tr>
<tr><td>10.</td><td>21°41'54.34"N</td><td>72°34'18.54"E</td></tr>
<tr><td>11.</td><td>21°41'47.38"N</td><td>72°33'10.72"E</td></tr>
<tr><td>12.</td><td>21°41'56.48"N</td><td>72°32'10.03"E</td></tr>
<tr><td>13.</td><td>21°42'2.79"N</td><td>72°31'53.47"E</td></tr>
<tr><td>14.</td><td>21°42'7.76"N</td><td>72°31'53.50"E</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>7 m to 22 m above mean sea level.</td><td>-</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>Out of total plant area of 341.65 ha, 303.173 ha is industrial land allotted by Gujarat Industrial Development Corporation (GIDC) and 38.4775 ha is forest land.
The details of the Forest Clearances obtained for the 38.4775 ha are given below:
<table>
<tr><th>S. No.</th><th>FC Stage</th><th>Area (Ha)</th><th>Date</th><th>Description</th></tr>
</table>
</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th colspan="5">Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td colspan="5"><table>
<tr><td>1.</td><td>FC (Stage 2)</td><td>17.5</td><td>31.08.1996</td><td>Diversion of 17.5 ha of Forest Land for Copper Smelter Project of Indo-Gulf Fertiliser and Chemicals Co. Ltd. in Bharuch District” was granted vide letter dated 31.08.1996. Application for Transfer of the FC dated 31.08.1996 from IGFCL to HIL was submitted on PARIVESH Web Portal vide proposal no. FP/GJ/IND/529287/2025 dated 13.03.2025. FC transfer has been recommended by DFO, Bharuch Sub- Division and Presently, proposal is with Nodal Officer-Forest Department, Gandhinagar and it is under process.</td></tr>
<tr><td>2.</td><td>FC (Stage 2)</td><td>0.245</td><td>31.03.1999</td><td>Diversion of 0.245 ha of Forest Land for laying underground stormwater pipeline for Birla Copper Unit under Rajpipla (West) Forest Division in Bharuch District” was granted vide letter dated 31.03.1999 (Memorandum dated 01.07.1999). Application for Transfer of the FC dated 31.03.1999 from IGFCL to HIL was submitted on PARIVESH Web Portal vide proposal no. FP/GJ/IND/529329/2025 dated 13.03.2025. FC transfer has been recommended by DFO, Bharuch Sub- Division and Presently, proposal is with Nodal Officer-Forest Department, Gandhinagar and it is under process.</td></tr>
<tr><td>3.</td><td>FC (Stage 2)</td><td>4.7325</td><td>28.12.2005</td><td>Diversion of Forest Land for expansion of Copper Smelter Project in Favor of Hindalco Industries Ltd. vide letter dated 28.12.2005.</td></tr>
<tr><td>4.</td><td>FC (Stage 2)</td><td>16.00</td><td>23.07.2013</td><td>Diversion of Forest Land for in Favor of Hindalco Industries Ltd. vide letter dated 23.07.2013.</td></tr>
<tr><td colspan="2">Total Forest Land</td><td>38.4775</td><td>-</td><td>-</td></tr>
</table></td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td colspan="5">Plant Site:<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Seasonal drain</td><td>Passing through the plant site</td><td>Flows from South towards western direction</td></tr>
</table>Study Area:</td><td>NOC has been obtained for the seasonal drain passing through the plant site.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Lakhigam Lake</td><td>0.7</td><td>South</td></tr>
<tr><td>Narmada River</td><td>3.0</td><td>South</td></tr>
<tr><td>Gulf of Khambhat</td><td>3.0</td><td>West</td></tr>
<tr><td>Sabarmati Talav</td><td>3.5</td><td>SSE</td></tr>
</table>
Apart from the above, few seasonal water bodies (viz. nallahs and ponds) are also present in the study area which remain active during rainy season.
</td><td></td></tr>
<tr><td>8.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>There is no ESZ/ ESA/ National Park / Wildlife sanctuary/ Biosphere reserve/ Tiger reserve/ Elephant reserve etc. within the study area.
However, there are 3 RF within the study area.
• Dahej Reserved Forest (Core Zone towards NW Direction)
• Lakhigam Reserved Forest (Core Zone towards SW direction)
• Luhara Reserved Forest (2.5 km in South direction)</td><td>-</td></tr>
<tr><td>9.</td><td>Details of inter-linked projects needs to be submitted</td><td>The Jetty is interlinked to the plant with handling capacity of 50,00,000 TPA. EC was obtained on 14th March, 1995 for smelter plant and captive jetty facilities by M/s. Indo Gulf Chemicals and Fertilizers Corporation Limited. The plant was commissioned in 1998. The Jetty was interlinked to the plant. Later, the Jetty was transferred from Indo Gulf Corporation Limited to Dahej Harbours & Infrastructure Limited vide letter no. J-11011/7/94-IA.II[I] dated 03rd January, 2000. Now the raw materials are being imported from this interlinked jetty and some products are being exported through this jetty. The capacity of the jetty is sufficient for this proposed expansion project.</td><td>-</td></tr>
</table>

ANNEXURE-III

Unit configuration and capacity

S. No.	Products / By-Products	UOM	Existing			Additional		Total after expansion		Remarks
			Capacity		Config	Cap	Config	Cap	Config	
			As per ECs	As per CCA						
1.	Anode (Product)	Lac TPA	5.75	5.75	Smelter 1: 1 x 1.91 Smelter 2: 1 x 0.8 Smelter 3: 1 x 3.04	3.97	(-) Smelter 2 (1 x 0.8) [D] Smelter 1&3: 0.35 [M] + Smelter 5: 1 x 3.62 [E]	8.92	Smelter 1: 1 x 2.05 Smelter 3: 1 x 3.25 Smelter 5: 1 x 3.62	• Smelter 2 (1 x 0.8) not in operations & decommissioned • 0.35 Lac TPA increase through modernization • 3.61 Lac TPA increase by expansion
2.	Ferro Sand (Granulated Slag)	Lac TPA	*7.86 (65500 TPM)*	7.86 (65500 TPM)		12.58	(-)1.82 [D] 4.96 [M] + 7.62 [E]	18.62		• 1.82 Lac TPA capacity to be decommissioned • 4.96 Lac TPA increase through modernization • 7.62 Lac TPA increase by expansion
3.	Dilute Sulphuric Acid (45% +/- 5)	TPA	Nil	Nil		1,75,130	1,06,438 [M] + 68,692 [E]	1,75,130		• 1,06,438 TPA increase through modernization [15490 TPA from Smelter-1, 10411 TPA from SAP-1, 13078 TPA from Smelter-3, 67459 TPA from SAP-3) • 68,692 TPA increase by expansion
4.	Sulphuric Acid (98.3 %) (Product)	Lac TPA	14.7	14.7	SAP 1: 1 x 4.5 SAP 2: 1 x 2.85 SAP 3: 1 x 7.35	14.74	(-) SAP 2: 1 x 2.85 [D] SAP 1 & 3: 2.43 [M]+ SAP 5 : 1 x 12.31 [E]	26.59	SAP 1: 1 x 5.31 SAP 3: 1 x 8.97 SAP 5: 1 x 12.31	• 2.85 TPA to be decommissioned as a part of SAP 2 • 12.31 Lac TPA increase by expansion - SAP 5 • 2.43 Lac TPA increase by modernization
5.	Copper Cathode (Product)	Lac TPA	5	5	Refinery 1: 1 x 1.5 Refinery 2: 1 x 1 Refinery 3: 1 x 2.5	3.5	Refinery 5: 1 x 3.5 [E]	8.5	Refinery 1: 1 x 1.5 Refinery 2: 1 x 1 Refinery 3: 1 x 2.5 Refinery 5: 1 x 3.5	• Due to change in technology, additional products will be introduced in the existing as well as new expansion proposal • 3.5 Lac TPA copper cathode by expansion • 38 TPA Bi Salt by modernization • 44 TPA Bi salt by expansion • 1173 TPA Nickel salt by modernization
6.	Bismuth Salt	TPA	Nil	Nil		82	38 [M] + 44 [E]	82		
7.	Nickel Salt	TPA	Nil	Nil		1993	1173 [M] + 820 [E]	1993		
8.	Copper Telluride	TPA	Nil	Nil		102.07	60.07 [M] + 42 [E]	102.07		

S. No.	Products / By-Products	UOM	Existing			Additional		Total after expansion		Remarks
			Capacity		Config	Cap	Config	Cap	Config	
			As per ECs	As per CCA						
										• 820 TPA Nickel salt by expansion • 60.07 TPA copper telluride by modernization • 42 TPA copper telluride by expansion
9.	Copper Wire (≤ 4 mm diameter) through Mechanical Drawing Process (Product)	TPA	-	60000	1 x 60000	Nil	Nil	60000	1 x 60000	No Change
10	Continuous Cast Copper Rod Plant (Product)	Lac TPA	4.84	4.84	2 x 1.2 1 x 2.44	(-) 1.2	(-) 1 x 1.2 [D]	3.64	1 x 1.2 1 x 2.44	• CCCR-2 (1 x 1.2) Lac TPA to be decommissioned • CCCR-2 Not in operation since 2021
11	Power-Coal fired (Product)	MW	99.85	145.6	1 x 24.5 MW (Coal fired) 1 x 15.35 MW (Coal fired) 1 x 60 MW (Coal Fired)	-19.85	19.85 [D]	80	1 x 20 MW (Coal fired) 1 x 60 MW (Coal fired)	• 19.85 MW to be decommissioned 80 MW on account of Coal fired power plant
12	Power-LNG fired-GTCC (Product)	MW	Nil		Nil	35	1 x 35 MW (TG-8) [E]	35	1 x 35 MW (GTCC)	• 35 MW on account of expansion. One additional 35 MW gas-based turbine (TG-8)
13	Proposed WHRB	MW	Nil		Nil	13	1 x 13 MW (TG-7) [E]	13	1 x 13 MW (WHRB-5)	• 13 MW on account of expansion WHRB. One additional 13 MW TG (TG-7)
14	Existing Power-WHRB (Product)	MW	45.75		1 x 10.5 MW (WHRB-1) 1 x 17 MW (WHRB-2) 1 x 18.25 MW	-36.75	17 MW [D] (-) 1 x 2.85 MW (TG-3) [D]	9	1 x 9 MW (WHRB-3)	• 17 MW on account of existing WHRB after decommissioning of Smelter-2 and Zinc Smelter WHRBs • TG-3 decommissioned with 2.85 MW

S. No.	Products / By-Products	UOM	Existing			Additional		Total after expansion		Remarks
			Capacity		Config	Cap	Config	Cap	Config	
			As per ECs	As per CCA						
					(WHRB-3)					
15	Oxygen (Product)	TPA	780000	780000	1 x 300TPD 1 x 200 TPD 1 x 240 TPD 1 x 960 TPD 1 x 510 TPD	4,32,000	(-) 1 x 240 TPD [D] 1 x 1200 TPD [E]	11,25,600	1 x 300 TPD 1 x 200 TPD 1 x 960 TPD 1 x 510 TPD 1 x 1200 TPD	• 86,400 TPA (1x240 TPD) to be decommissioned • 4,32,000 TPA (1x1200 TPD) increase by expansion
16	Liquid Nitrogen (>99.9%)	TPA	Nil	Nil		7,200		7,200		• 7,200 TPA Liquid Nitrogen from 1200 TPD oxygen plant
17	Gold (Product)	TPA	26	26	1 x 7.5 1 x 18.5	53	(-) 1 x 7.5 & (-) 1 x 18.5 [D] 2 x 26.5 [E]	53	2 x 26.5	• Existing PMR will be decommissioned and New PMR Plant is proposed as per the proposed capacities • Upon commissioning of the proposed facility, existing facility will be decommissioned.
18	Silver (Product)	TPA	200	200	1 x 75 1 x 125	450	(-) 1 x 75 & (-) 1 x 125) [D] 2 x 225 [E]	450	2 x 225	
19	Selenium	TPA	720	720 (60 TPM)	1 x 240 1 x 480	400	(-) 1 x 240 & (-) 1 x 480 [D] 2 x 200 [E]	400	2 x 200	
20	PGM	TPA	0.61 (0.0508 TPM)	0.61 TPA (0.0508 TPM)	1 x 0.13 1 x 0.48	2	(-) 1 x 0.13 & (-) 1 x 0.48 [D] 2 x 1 [E]	2	2 x 1	
21	Platinum	TPA	Nil	Nil	Nil	0.3	2 x 0.15 [E]	0.3	2 x 0.15	
22	Palladium	TPA	Nil	Nil	Nil	1.4	2 x 0.7 [E]	1.4	2 x 0.7	
23	Phosphoric Acid as P2O5 (Product)	Lac TPA	3.6	3.6	2 x 1.8 Lac TPA	(-) 3.6	(-) 2 x 1.8 Lac TPA [D]	0	Nil	• To be decommissioned • Only legacy Phosphogypsum is stored in yard had already been evacuated to reclaim the land.
24	Phosphogypsum	TPA	1800000 (150000 TPM)	1800000 (150000 TPM)		(-) 1800000 (150000 TPM)		0		
25	Hydrofluosilicic Acid	TPA	66960 (5580 TPM)	66960 (5580 TPM)		(-) 66960 (5580 TPM)		0		
26	DAP Fertilizer (Product)	TPA	872000	872000	1 x 872000	(-) 872000	(-) 1 x 872000 [D]	0	Nil	• To be decommissioned

S. No.	Products / By-Products	UOM	Existing			Additional		Total after expansion		Remarks
			Capacity		Config	Cap	Config	Cap	Config	
			As per ECs	As per CCA						
27	Aluminium Fluoride	TPA	-	6000 (500 TPM)	1 x 6000	(-) 6000 (500 TPM)	(-) 1 x 6000 [D]	0		• Not in operation since April, 2020
28	Sodium Sulfate (TWRU)	TPA	Nil	Nil	Nil	36,410	2 x 2000 KLD [M]	36,410	2 x 2000 KLD [M]	• To be added on account of modernization • A new 1 x 2000 KLD TWRU will be added in ETP modernization • Existing 1 x 2000 KLD TWRU will remain within the overall scheme of ETP modernization

Note:
Legends: [D] Decommissioned /To Be Decommissioned, [M] Modernization, [E] Expansion
****Anode is the intermediate product which was not mentioned in the earlier ECs.***

ANNEXURE-IV

Action plan as per MoEF&CC O.M. dated 30/09/2020

S. N.	Activities to be done	Unit of Measurement						Total Expenditure (Rs. in Crores)
		1st Year		2nd Year		3rd Year		
		Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	
1	**Skill Development** **Skill Development Programme** for village's youth (freshers/students) and women (Sakhi Mandal / SHGs) through short-term employment-linked vocational training, Enterprise building and trade-specific courses aligned to industry and market needs, Strengthening of SHGs & Women's enterprises with Market Linkages for job opportunity and sustainable livelihood **through company affiliated training centres/ skill development centres.**	100 trainees and 50 women and from Lakhigam, luvara, Dahej and Ambheta	2	100 trainees and 80 women from Jageswar, padaria, wadia and Suva	3	120 trainees and 100 women and from Jholwa, Kadodra, Wadala and Vav	4	9
2	**Education** **Integrated Education Development Programme** **1. Student support initiatives:** Higher education support, distribution of stationery kits, distribution of school uniforms, and provision of learning & study materials. **2. School infrastructure strengthening:** Painting and renovation of classrooms; flooring of multipurpose school shed area and power solutions through inverters/solar panels. **3. Mid-Day Meal (MDM) strengthening**: Renovation of MDM kitchen, kitchen shed/cooking area support, Chair and benches for MDM	Covering all 12 villages	10	Covering all 12 villages	10	Covering all 12 villages	10	30

S. N.	Activities to be done	Unit of Measurement						Total Expenditure (Rs. in Crores)
		1st Year		2nd Year		3rd Year		
		Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	
	area and provision of kitchen utensils. **4. Teaching & learning enhancement:** Subject-specific teacher support and establishment of smart classes (Smart TV, sound system, computers, and related digital learning resources) **5. Furniture & staff enablement:** Classroom furniture, school staff room creation/upgradation with furniture, and school staff-use IT support (laptops, printers, computers at staffroom) **6. WASH & utilities support:** Drinking water facility and construction/renovation of school's toilets. **7. Play & child-friendly development:** Re-development/expansion of playground and play/activity areas; Anganwadi support through cupboards and toys **8. Access & inclusion:** Free transportation support for meritorious student will be provided to attending ABPS School.							
3	**<u>Health Facility Development</u>** **Health infrastructure/hospital establishment and renovation** to strengthen village-level medical services, including full-time medical support (doctor and required staff), diagnostic and testing facilities (medical lab and sample testing), specialized screening services (eye diagnosis, eye & dental check-ups), provision of free	Covering all 12 villages	30	Covering all 12 villages	30	Covering all 12 villages	30	90

S. N.	Activities to be done	Unit of Measurement						Total Expenditure (Rs. in Crores)
		1st Year		2nd Year		3rd Year		
		Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	
	medicines, free Ambulance services, Mobile Health and quality maternal healthcare for pregnant women. 2. **Financial assistance to people suffering from serious diseases**, as required.							
4	**Infrastructure Development Activities**							
	1.Construction of houses (20 nos.) for tribal & needy families	Luvara village	0.2	Luvara village	0.2	Luvara village	0.2	0.6
	2. Construction of Cultural Hall within the premises of Shri Rukneshwar Mahadev Temple	Lakhigam	0.5	Lakhigam	0.5	Lakhigam	0.5	1.5
	3. Strengthening basic civic amenities through cleaning and maintenance of village's sewer lines	Covering all 12 villages	2	Covering all 12 villages	2	Covering all 12 villages	2.4	6.4
	4. Renewable energy support through installation of solar panels	Lakhigam	0.5	Lakhigam	0.5	Lakhigam	0.5	1.5
5	**Environmental Improvement** **Tree sapling plantation programs** in the village areas and care of the trees for proper growth	10000 no. of tree saplings plantation/ distribution in Lakhigam, Dahej, Luvara and Ambetha	1	10000 no. of tree saplings plantation/ distribution in Jageshwar, Padariya, Vadiya and Suva	1	10000 no. of tree saplings plantation/distribution in Jolva, Kadodara, Vadala and Wav	1	3
	Cleaning and maintenance of village storm water drains to resolve water logging issues	Lakhigam	1	Lakhigam	0.5	Lakhigam	0.5	2
	Solid Waste Management programme in villages as per requirement (Waste to Wealth Project)	Covering all 12 villages	1.5	Covering all 12 villages	1	Covering all 12 villages	1	3.5

S. N.	Activities to be done	Unit of Measurement						Total Expenditure (Rs. in Crores)
		1st Year		2nd Year		3rd Year		
		Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	Location / Nos.	Budget in Crores	
6	**Awareness Program** **Organize awareness programme** on addiction, education health issues and waste management to promote overall wellbeing among nearby communities	Covering all 12 villages	1	Covering all 12 villages	1	Covering all 12 villages	1	3
7	**Community Development** **Organize sports and cultural initiatives** in villages to promote and develop local talents	Covering all 12 villages	1	Covering all 12 villages	1	Covering all 12 villages	1	3
		Sub Total - 1	**50.7**	**Sub Total -2**	**50.7**	**Sub Total - 3**	**52.1**	**153.5**
Grand Total (Crores)		**153.5**						

Note:

1. *The above action plan will be implemented during project implementation phase.*
2. *The activities given in the above table are based on queries raised during the public hearing & need based assessment report (Socio Economic Survey of 12 villages in the study area).*
3. *01 no. of villages will be adopted as per specific ToR Point No. 9.6 namely, Lakhigam.*

Budget for EMP

S. No.	Description of Item	Existing (in Crores)		Proposed (in Crores)	
		Capital	Recurring	Capital	Recurring
1	Air Quality Management	296.52	89.07	1751.1	203.7
2	Water Quality Management	78.54	38.26	727	73.32
3	Post Project Monitoring and Compliance	7.0	1.60	12.65	1.75
4	Housekeeping within the plant premises	0.50	5.45	0.30	0.15
5	Waste Management	42.51	12.74	5	1
6	Greenbelt Development and Management	6.00	1.27	2.65	0.80
7	Water Management	3.0	0.50	10	0.22
Sub Total - (A)		434.07	148.89	2508.7	280.94
		~434	~149	~2509	~281
8	Wildlife Conservation	0	0	6.58	-
9	Mangrove Conservation and Monitoring	0	0	2.47	0.12
10	Drainage Conservation & Soil Conservation	0	0	1.50	0.10
11	Lakhigam Lake Conservation	1.07	0	0.04	0.05
12	Luvara Forest Conservation	0	0	0.30	0.02
13	Soil and Groundwater analysis of Plant Area	0	0.33	0	0.33
14	Occupational Health & Safety	18.24	5.35	8	7.14
Sub Total - (B)		19.31	5.68	18.89	7.76
Grand Total - (A + B)		486.1	154.57	2527.6	288.7
Along with this, Rs. 153.5 Crores have been allocated for Socio-Economic Development & Village adoption program.					