



**File No: J-11011/136/2009-IA-I(I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**\*\*\***



Date **07/06/2025**



To,

M/s. Aditya Aluminium (A Unit of Hindalco Industries Limited)  
At/Po- Lapanga, Tehsil- Rengali,  
Dist- SAMBALPUR, ODISHA, 768212  
Email: lalit.charan@adityabirla.com

**Subject:** Aluminium Smelter from 3.8 LTPA to 6.8 LTPA [by addition of 1 LTPA (Recycled metal) & installation of 2 LTPA (Renewable Energy Based 180 Pots)] and Captive Power Plant from 900 MW to 1230 MW [by addition of 180 MW Combined Cycle Power Plant (Gas/ Oil fired) & 150 MW CPP (Coal fired) for Emergency Backup] within the existing plant premises by M/s. Aditya Aluminium (A Unit of M/s. Hindalco Industries Limited), located at Villages: Lapanga, Bomaloi, Derba, Khadiapali, Tileimal and Dharopani Tehsil: Rengali, District: Sambalpur, Odisha- Grant of Environmental Clearance under Notification vide S.O. 1247(E) dated 18.03.2021 -Reg.

**Sir/Madam,**

This is in reference to your application submitted to MoEF&CC vide proposal number IA/OR/IND1/519951/2025 dated 19/04/2025 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 :

<b>(i) EC Identification No.</b>	EC25A1005OR5669816N
<b>(ii) File No.</b>	J-11011/136/2009-IA-I(I)
<b>(iii) Clearance Type</b>	Fresh EC
<b>(iv) Category</b>	A
<b>(v) Project/Activity Included Schedule No.</b>	3(a) Metallurgical Industries (ferrous and non ferrous),1(d) Thermal Power Plants,1(d) Thermal Power Plants,8(b) Townships/ Area Development Projects / Rehabilitation Centres
<b>(vi) Sector</b>	Industrial Projects - 1
<b>(vii) Name of Project</b>	EC for Aluminium Smelter from 3.8LTPA to 6.8LTPA [by addition of 1LTPA (Recycled metal) & installation of 2LTPA (Renewable Energy Based 180Pots)] and CPP from 900MW to 1230MW [by addition of 180MW Combine Cycle Power Plant

	(Gas/Oil fired) & 150MW CPP (Coal fired) for Emergency Backup] within the existing plant premises at Villages: Lapanga, Bomaloi, Derba, Khadiapali, Tileimal and Dharopani Tehsil: Rengali District: Sambalpur (Odisha) by Aditya Aluminium (A Unit of M/s. Hindalco Industries Ltd.)
(viii) Name of Company/Organization	Jagannath Prasad Nayak
(ix) Location of Project (District, State)	SAMBALPUR, ODISHA
(x) Issuing Authority	MoEF&CC
(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 (non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

4. The proposal was considered in the 3rd EAC Meeting held during 8th –9th May, 2025, 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 minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed 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 3rd Meeting held during 8th – 9th May, 2025, inter-alia, deliberated the following:

i. The instant proposal is for setting up Aluminium Smelter 6.8 LTPA (Existing: 3.8 LTPA, 1 LTPA (Recycled metal) & Proposed installation of 2 LTPA (RE Power Based 180 Pots), Captive Power Plant [Existing 900 MW (6x150 MW) & Installation of 180 MW Gas/Oil fired Turbine-based Combine Cycle Power Plant & 150 MW (1 x 150 MW) Coal based Thermal Power Plant for Emergency Backup.

ii. The PP had reported that earlier, EC was obtained from MoEFCC, New Delhi vide letter dated 29th Nov. 2012 for Expansion of Aluminium Smelter and Captive Power Plant, out of which, the company established Aluminium Smelter Plant (3.80 LTPA) and Captive Power Plant (900 MW) in year 2013. Accordingly, the PP further requested to apprise the said proposal as per the Ministry’s Gazette Notification vide S.O. 1247(E) dated 18.03.2021 for granting TOR with Exemption of Public Hearing, as the project has been implemented and operating for more than 50% capacity in its physical form and fresh EC application has been submitted before EC validity. In support of the same, PP submitted the copy of the CTO from SPCB permitting 0.38 MTPA of Aluminium Smelter (i.e. 52.78% of total 0.72 MTPA) and 900 MW of Power Plant (i.e. 54.55% of total 1650 MW). The PP further submitted a certificate from Chartered Accountant dated 07.10.2024 certifying the cost of the existing project as Rs. 16,228.34 Crores (i.e. 72.97% of Rs. 22,240 Crores). The PP further submitted the detailed progress of the project as detailed in relevant para above. The EAC (during the ToR appraisal) deliberated on the implementation status of the earlier Public Hearing Commitments and was of the view that since PP has already complied with their commitments, and considering the submission made by PP, the proposal qualified to be appraised in pursuance to Ministry’s Gazette Notification vide S.O. 1247(E) dated 18.03.2021 for granting TOR with Exemption of Public Hearing. Accordingly, the ToR was granted to PP on 05.12.2024 with exemption of Public Hearing in pursuance to Ministry’s Gazette Notification vide S.O. 1247(E) dated 18.03.2021.

iii. The existing project was initially accorded Environment Clearance from MOEF&CC vide letter F.NO. J-11011/136/2009-IA-I(I) dated 29.12.2012 for Expansion for Aluminium Smelter Plant from 0.26 MTPA to 0.72 MTPA and Captive Power Plant from 650 MW to 1650 MW. Amendment in EC conditions was obtained vide letter dated 14.06.2013 followed by further amendment in EC vide letter dated 14.08.2018. PP further obtained EC extension vide

letter dated 20.07.2020 and 12.08.2022. It is also reported that Company obtained Verification on certificate of “No Increase in Pollution Load (NIPL)” on 20.12.2021 from State Pollution Control Board, Odisha for installation of manufacturing facility of capacity 340 KTPA (3.4 LTPA) involving changes in product mix (i.e., Addition of Sheets and Coils) inside the existing plant premises of Aditya Aluminium. The company obtained another Verification on certificate of “No Increase in Pollution Load (NIPL)” on 22nd March 2024 for Enhancement in Aluminium production capacity from 3.80 LTPA to 4.80 LTPA by addition of 1.0 LTPA recycled metal and installation of 0.9 LTPA White Fused Alumina Plant through change in product mix and plant configuration within the existing plant premises. Consent to Operate for the existing unit was accorded by Odisha State Pollution Control Board vide Ir. no. 4707/IND -I-CON-6120 dated 27/03/2023. The validity of CTO is up to 31/03/2028.

iv. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

v. 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.

vi. 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.

vii. 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.

viii. The EAC reviewed the compliance statement submitted by the project proponent regarding the applicability of MoEF&CC's Office Memorandums and Notifications to their proposal which include 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.

ix. The total plant area is 1347.35 Hectare [Forest Land: 119.264, Private: 811.42 Ha, Govt.: 416.666 Ha]. Forest Clearance for 119.264 Hectare has been obtained vide F. No. 8-27/2009-FC dated 10th Feb., 2011. Proposed installation will be done in existing plant premises. Hence, no additional land is required.

x. Bomaloi (Adjacent to plant site in South), Tileimal (0.3 km, SE), Sadhapali (0.3 km, E), Khadiapali (0.3 km, WNW), Derba (0.6 km, NE) along with other sensitive areas within the study area of the project site. The EAC opined that proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The project proponent needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include some of these locations in its environmental monitoring programme.

xi. The project site is in proximity to several water bodies, including a seasonal nallah originating from the plant area near the solar plant in the southwest direction from the main plant site. Another seasonal nallah passes through the raw water reservoir area, located near the western boundary of the project. Additionally, Matwali Nala flows near the raw water reservoir, along the north eastern boundary of the project. The nearest river is Bhedan River which is approx. 3.5 km in NW direction from the plant site. The Hirakud reservoir is situated downstream to the plant and does not fall in flood plain of Bhedan river and Hirakud reservoir and is safe from flood hazards of these water bodies. The letter issued from the Deputy Collector (Office of the Collector and District Magistrate - Emergency Section) is submitted. The EAC opined that appropriate measures shall be undertaken in consultation with the Water Resource Department for mitigating any adverse impact on the aforementioned water bodies.

xii. There are several water bodies reported within the study area of the project site. The EAC opined that a robust and

foolproof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

xiii. The existing water requirement is 35750 m<sup>3</sup> /day, which is obtained from Hirakud Reservoir. The water requirement for the expansion project is estimated as 22048 m<sup>3</sup> per day which will be fulfilled from existing CPP raw water reservoir of Aditya Aluminium. No additional permission for water withdrawal will be required for the proposed installation. The EAC reviewed the water requirement details submitted by the project proponent and emphasized that the necessary permissions must be obtained from the Competent Authority.

xiv. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.

xv. The EAC further deliberated on the implementation status of the earlier Public Hearing Commitments and is of the view that since PP has already complied with their commitments. The Committee also deliberated on the action plan submitted by the proponent for socio economic developmental activities in the nearby villages and found it satisfactory.

xvi. The EAC opined that PP shall implement skill development programs (mentioned in Socio-Economic Development Action plan) 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.

xvii. The PP submitted that existing green belt has been developed in 446 ha area which is about 33.10 % of the total project area of 1347.35 ha with total sapling of 892230 Trees. Proposed greenbelt (Gap Filling) will be developed in 446 ha. Thus, total of 446 ha area (33.10 % of the total project area) will be developed as greenbelt. Total no. 1115230 saplings in 33.10 hectares in by Jan 2028. The EAC deliberated on the greenbelt plan and is of the opinion that greenbelt shall be developed as committed.

xviii. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

xix. The EAC deliberated on the certified compliance report issued by the Regional Office, the Action Taken Report (ATR) submitted by the project proponent, and the letter from the Compliance & Monitoring Division (CMD) of MoEF&CC dated 15.04.2025. The Committee considered the suggestions made by CMD regarding necessary amendments to certain earlier Environmental Clearance (EC) conditions. Additionally, the project proponent submitted a proposed amendment log with justifications, which was also taken into account. After due consideration, the EAC agreed to the proposed amendments. The details are as below:

S. No.	Reference in EC dated 29.11.2012	Existing (as given in EC dated 29.11.2012)	Recommended EC Condition
1.	Specific Condition -(xii) of EC dated 29.11.2012	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. PP shall comply with the CPCB guidelines for handling, utilisation and disposal of flyash, including unutilised ash. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. Low Lying area filling with Fly ash shall be done accordance to the guidelines prepared by

the Central Pollution Control Board (CPCB) for the disposal of fly ash in reclamation of low-lying areas and stowing/ backfilling of abandoned mines/ quarries.

Regular ground water monitoring shall be carried out by installing Piezometers all around the secured landfill site, if any, in consultation with SPCB and data be submitted to the Ministry's Regional Office and SPCB.

The company shall develop rainwater structures to harvest the runoff water for recharge of ground water in consultation with the Central Ground Water Authority/ Board or a reputed government institute specializing in rainwater harvesting.

No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

Anode butts generated from the pots shall be cleaned and recycled to the Anode Plant. The spent pot lining generated from the smelter shall be properly treated in spent pot lining treatment plant to remove fluoride and cyanide and dispose of in secured landfill / Shall be disposed off through

actual users authorized by SPCBs/ Coprocessing in Cement kilns authorized by SPCBs /Disposal in CHW-TSDF, in line with the provisions of HOWM Rules, 2016 (as amended) and CPCB Guidelines.

The location and design of the land fill site shall be approved by the SPCB as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008. Leachate collection facilities shall be provided to the secured land fill facilities (SLF). The dross shall be recycled in the cast house. STP sludge shall be utilized as manure for greenbelt development. All the used oil and batteries shall be sold to the authorized recyclers/ re-processors. As proposed, spent pot lining waste shall also be provided to cement and steel industries for further utilization. The project proponent shall develop in-

Regular ground water monitoring shall be carried out by installing Piezometers all around the secured landfill site in consultation with the SPCB, Central Ground Water Authority and State Ground Water Board and data submitted to the Ministry's Regional Office and SPCB.

The company shall develop rainwater structures to harvest the runoff water for recharge of ground water in consultation with the Central Ground Water Authority/Board.

No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

Anode butts generated from the pots shall be cleaned and recycled to the Anode Plant. The spent pot lining generated from the smelter shall be properly treated in spent pot lining treatment plant to remove fluoride and cyanide and disposed of in secured landfill.

The location and design of the land fill site shall be approved by the SPCB as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008. Leachate collection facilities shall be provided to the secured land fill facilities (SLF). The dross shall be recycled in the cast house. STP sludge shall be utilized as manure for greenbelt development. All the used oil and batteries shall be sold to the authorized recyclers/ re-processors. As proposed, spent pot lining waste shall also be provided to cement and steel industries for further utilization. The project proponent shall develop in-house facilities for treatment of Spent Pot Lining (SPL) generated in the Aluminium smelter. Meanwhile, Refractory part may be sent to CHWTSDF as per the provisions of

2. Specific Condition - (xix) of EC dated 29.11.2012

3. Specific Condition - (xxiv) of EC dated 29.11.2012

4. General Condition - (ii) of EC dated 29.11.2012

5. Specific Condition No. xiv) of EC dated 29.11.2012 & Specific Condition No. xiv) Environmental Clearance vide letter no. J-11011/136/2009-IA. II (I) dated 14th August 2018. Additional Condition No. i) & Additional Condition No. v)

Hazardous and Other Waste  
Amendment Rules, 2016.

The project proponent shall develop  
in-house facilities for the treatment of  
SPL in 2 to 3 years.

house facilities for treatment of Spent  
Pot Lining (SPL) generated in the  
Aluminium smelter. Meanwhile,  
Refractory part may be sent to  
CHWTSDF as per the provisions of  
Hazardous and Other Waste  
Amendment Rules, 2016.

The project proponent shall develop in-  
house facilities for the treatment of SPL  
in 2 to 3 years.

xx. The EAC also deliberated on the written submission of project proponent and found it satisfactory.

xxi. 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.

xxii. 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.

xxiii. 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.

#### **Recommendations of the Committee:**

8. In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance subject to uploading of written submission on PARIVESH portal under the provisions of EIA Notification, 2006. The EAC categorically noted that the recommendation to grant EC is technical in nature under the provisions of the EIA Notification 2006, and subject to the fulfilment of commitments made by the PP to secure all the permissions/ approvals/ consents from Central/ State Authorities, as may be required. The recommendation does not create an obligation for authorities that handle issues related and relevant to construction and operation of the project under other independent procedures/ statutes, including the provisions stipulated in the Land Acquisition (R&R) Act, 2013. The specific and general conditions are mentioned 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-I Sector) that grant of EC is subject to the fulfilment of commitments made by the PP to secure all the permissions/ approvals/ consents from Central/ State Authorities, as may be required. The grant of EC does not create an obligation for authorities that handle issues related and relevant to construction and operation of the project under other independent procedures/ statutes, including the provisions stipulated in the Land Acquisition (R&R) Act, 2013. Accordingly, it is hereby decided to grant Environment Clearance for instant proposal of M/s. Aditya Aluminium (A Unit of M/s. Hindalco Industries Limited) under the provisions of S.O. 1247(E) dated 18.03.2021 of the EIA Notification, 2006 subject to the 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.

(Dinesh Runiwal)  
Scientist 'F'/Director  
Tel -011-20819346  
[Email-d.runiwal@gov.in](mailto:Email-d.runiwal@gov.in)

#### **Copy To**

1. The Principal Secretary, Department of Forest and Environment, Government of Odisha, Bhubaneswar, Odisha
2. Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi
3. Principal Chief Conservator of Forests & HoFF, Aranya Bhawan, Chandrasekharapur, Bhubaneswar - 751 023, Odisha
4. The Regional Officer, Ministry of Environment, Forest And Climate Change, Integrated Regional Office, A/3, Chandersekharpur, Bhubaneswar – 751023 ODISHA
5. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32
6. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
7. **The Member Secretary, Odisha State Pollution Control Board, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar -12 Odisha - with a request to initiate action in line with the provisions of OM dated 14-01-2025**
8. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
9. District Collector, Sambalpur, Odisha
10. Guard File/Monitoring File/ Parivesh Portal /Record File.

(Dinesh Runiwal)  
Scientist 'F'/Director

#### **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

S. No	EC Conditions
	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	Bomaloi (Adjacent to plant site in South), Tileimal (0.3 km, SE), Sadhapali (0.3 km, E), Khadiapali (0.3 km, WNW), Derba (0.6 km, NE) along with other sensitive areas within the study area of the project site. Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The project proponent needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include some of these locations in its environmental monitoring programme.
1.5	The project site is in proximity to several water bodies, including a seasonal nallah originating from the plant area near the solar plant in the southwest direction from the main plant site. Another seasonal nallah passes through the raw water reservoir area, located near the western boundary of the project. Additionally, Matwali Nala flows near the raw water reservoir, along the north eastern boundary of the project. PP shall undertake appropriate measures in consultation with the Water Resource Department for mitigating any adverse impact on these water bodies. A robust and foolproof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
1.6	The existing water requirement is 35750 m <sup>3</sup> /day, which is obtained from Hirakud Reservoir. The water requirement for the expansion project is estimated as 22048 m <sup>3</sup> per day which will be fulfilled from existing CPP raw water reservoir of Aditya Aluminium. No additional permission for water withdrawal will be required for the proposed installation. PP shall obtain necessary permission from the Competent Authority.
1.7	Three tier Green Belt shall be developed and maintained in atleast 33% of the project area, as committed, of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards sensitive areas nearby project site. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
1.8	The PP shall undertake plantation, in compliance to MoEFCC OM dated 24.07.2024, in the earmarked 33% or 40% greenbelt area, as the case may be, as a part of tree plantation campaign 'Ek Ped Maa Ke Naam' Campaign and the details of the same shall be uploaded on MeriLiFE portal at ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> )
1.9	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

S. No	EC Conditions
	project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 amounting to Rs. 127.74 Crores shall be strictly implemented. The action plan shall also cover activities related to (i) promotion of environmental education and awareness, 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.
1.10	The project proponent shall undertake village adoption programme, as committed, and prepare and implement the action plan to develop them into a model village, in consultation with the State Administration.
1.11	PP shall implement the skill development programs, proposed under Socio economic development Action plan, 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 target beneficiaries, training modules, and expected outcomes) be prepared for the above. Periodic progress reports shall be maintained, and submitted to RO MoEFCC.
1.12	PP shall Install CO sensors with alarms at strategic locations in the Plant.
1.13	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.
1.14	The project shall be implemented in accordance with the revised Environmental Clearance (EC) conditions, as amended and detailed in the relevant portion of the project's proposal and justification log submitted by the project proponent. The other observations made in the certified compliance report of the Regional Office, the Action Taken Report (ATR), and the letter from the Compliance & Monitoring Division (CMD) of MoEF&CC, shall be strictly complied with by the project proponent.
1.15	PP shall aim at 100% waste utilisation under circular economy. This shall be in addition to the mandatory stipulations prescribed by CPCB guidelines for handling, storage and management of Aluminium smelter facilities/ processing. It may be ensured that the detailed plan may be aligned to the framework prescribed by CPCB/ SPCB, including ongoing waste utilisation research studies.
1.16	PP shall undertake any tree felling/ translocation activity in consultation with the State Forest Department and obtain any permission, if applicable.
1.17	The CCPP shall be designed for dual fuel capability (Natural Gas/Low Sulphur Fuel Oil) with low-NOx burners and dry low-emission technology. Stack emissions shall conform to CPCB norms for gas-based plants.
1.18	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. PP shall comply

S. No	EC Conditions
	with the CPCB guidelines for handling, utilisation and disposal of flyash, including unutilised ash. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. Low Lying area filling with Fly ash shall be done accordance to the guidelines prepared by the Central Pollution Control Board (CPCB) for the disposal of fly ash in reclamation of low-lying areas and stowing/ backfilling of abandoned mines/ quarries.
1.19	Regular ground water monitoring shall be carried out by installing Piezometers all around the secured landfill site, if any, in consultation with SPCB and data be submitted to the Ministry's Regional Office and SPCB.
1.20	The company shall develop rainwater structures to harvest the runoff water for recharge of ground water in consultation with the Central Ground Water Authority/Board or a reputed government institute specializing in rainwater harvesting.
1.21	Anode butts generated from the pots shall be cleaned and recycled to the Anode Plant. The spent pot lining generated from the smelter shall be properly treated in spent pot lining treatment plant to remove fluoride and cyanide and dispose of in secured landfill / Shall be disposed off through actual users authorized by SPCBs/ Coprocessing in Cement kilns authorized by SPCBs /Disposal in CHW-TSDF, in line with the provisions of HOWM Rules, 2016 (as amended) and CPCB Guidelines. The location and design of the land fill site shall be approved by the SPCB as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008. Leachate collection facilities shall be provided to the secured land fill facilities (SLF). The dross shall be recycled in the cast house. STP sludge shall be utilized as manure for greenbelt development. All the used oil and batteries shall be sold to the authorized recyclers/ re-processors. As proposed, spent pot lining waste shall also be provided to cement and steel industries for further utilization. The project proponent shall develop in-house facilities for treatment of Spent Pot Lining (SPL) generated in the Aluminium smelter. Meanwhile, Refractory part may be sent to CHWTSDF as per the provisions of Hazardous and Other Waste Amendment Rules, 2016. The project proponent shall develop in-house facilities for the treatment of SPL in 2 to 3 years.
1.22	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 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.
1.23	The cyanide content in SPL shall be monitored regularly, in line with CPCB guidelines for hazardous waste landfilling and co-processing. SPL with cyanide content above permissible limits shall be treated or detoxified prior to disposal. The project proponent shall explore co-processing of SPL in cement kilns or other approved thermal treatment facilities, and maintain records of SPL generation, testing, and final disposal.
1.24	Necessary coordination shall be made with concerned SPCB (who is responsible for Compliance of OM dated 14-01-2025) regarding streamlining the implementation of GSR 702 and GSR 703 dated 12-11-2024 through which projects requiring prior EC were exempted from requirement of CTE.

**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.
2.4	Sampling facility at process stacks and at quenching towers 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

S. No	EC Conditions
	materials and cover them with tarpaulin.
2.9	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
2.10	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.11	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
2.12	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
2.13	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.
2.14	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
2.15	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.
2.16	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm <sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
2.17	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.

### 3. Air Quality Monitoring And Preservation In Case Of Aluminium Smelter / Aluminium Refinery

S. No	EC Conditions
3.1	Adopt measures to recover fluoride gas from electrolytic cells and recycle the same in the process.
3.2	Practice use of low-sulphur tars for baking anodes
3.3	Adopt dry scrubbing combined with incineration in order to control emissions of tar and volatile organic compounds (VOCs). The waste heat shall be recovered from the flue gases of incinerator.
3.4	Make efforts to increase the life of pot lining through better construction and operating techniques.

S. No	EC Conditions
3.5	Recycle alumina dust collected in ESPs installed in calciner.
3.6	Design the pot roofs with louvers and roof ventilators
3.7	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 limits as per Indian Factories Act, 1948 shall be implemented.
3.8	The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m <sup>3</sup> , respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

#### 4. Water Quality Monitoring And Preservation

S. No	EC Conditions
4.1	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.
4.2	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.
4.3	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.
4.4	Water meters shall be provided at the inlet to all unit processes in the plants.
4.5	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.
4.6	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.
4.7	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.
4.8	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
4.9	Air Cooled condensers shall be used in the captive power plant.

#### 5. Noise Monitoring And Prevention

S. No	EC Conditions
5.1	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.
5.2	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.
5.3	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.

## 6. Energy Conservation Measures

S. No	EC Conditions
6.1	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;
6.2	Provide LED lights in their offices and residential areas.

## 7. Waste Management

S. No	EC Conditions
7.1	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
7.2	Kitchen waste shall be composted or converted to biogas for further use.
7.3	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.
7.4	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 <a href="https://cpcb.nic.in/technical-guidelines-3/">https://cpcb.nic.in/technical-guidelines-3/</a> . 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.
7.5	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

## 8. Green Belt

S. No	EC Conditions
8.1	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.
8.2	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.
8.3	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

## 9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.2	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.
9.3	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.
9.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

## 10. Environment Management

S. No	EC Conditions
10.1	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.
10.2	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
10.3	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.
10.4	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.

#### 11. Miscellaneous

S. No	EC Conditions
11.1	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.
11.2	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.
11.3	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.
11.4	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.
11.5	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
11.6	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.
11.7	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.
11.8	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.
11.9	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
11.10	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.
11.11	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.
11.12	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).
11.13	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.
11.14	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.15	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.16	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.
11.17	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**

NA

## Environmental Site Settings:

S. N	Particulars	Details				
a.	Terms of Reference for undertaking EIA study	Date of application	Consideration	Details	Date of accord	ToR Validity
		13.09.2024	67 <sup>th</sup> meeting of EAC held on 14.10.2024	Terms of Reference	05.12.2024	04.12.2028
b.	Period of baseline data collection	March to May, 2024				
c.	Date of Public Consultation	Public hearing has been exempted for the project as per the Ministry's Gazette Notification vide S.O. 1247(E) dated 18.03.2021				
d.	Action plan to address the PH issues	Action plan as per MoEF&CC O.M. dated 30/09/2020 to address the public issues is attached as Annexure IV.				
e.	Location of the project	located at Villages: Lapanga, Bomaloi, Derba, Khadiapali, Tileimal and Dharopani Tehsil: Rengali, District: Sambalpur, Odisha				
f.	Total land	The total plant area is 1347.35 Hectare [Forest Land: 119.264 Ha, Private: 811.42 Ha, Govt.: 416.666 Ha] Proposed installation will be done in existing plant premises. Hence, no additional land is required.				
g.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Application for 1347.35 Ha to IDCO, 1302.48 Ha has been allotted & leased out to Hindalco Industries Ltd. and the remaining 37.64 Ha Govt. Land and Private land of 7.23 Ha is in advanced stages of acquisition.				
h.	Existence of habitation & involvement of R&R, if any	<b>Plant Site:</b> No habitation exists within the plant site. <b>Study Area:</b> total 07 Villages are present in proximity (2 km radius) of the plant site:				
		Habitation	Distance	Direction		
		Bomaloi	Adjacent to the plant site	South		
		Tileimal	0.3	SE		
		Sadhapali	0.3	East		
		Khadiapali	0.3	WNW		
		Derba	0.6	NE		
		Gumakarma	1.1	North		
Dharopani	1.5	ESE				
Total 42 villages are present within the 10 km radius of the study area.						

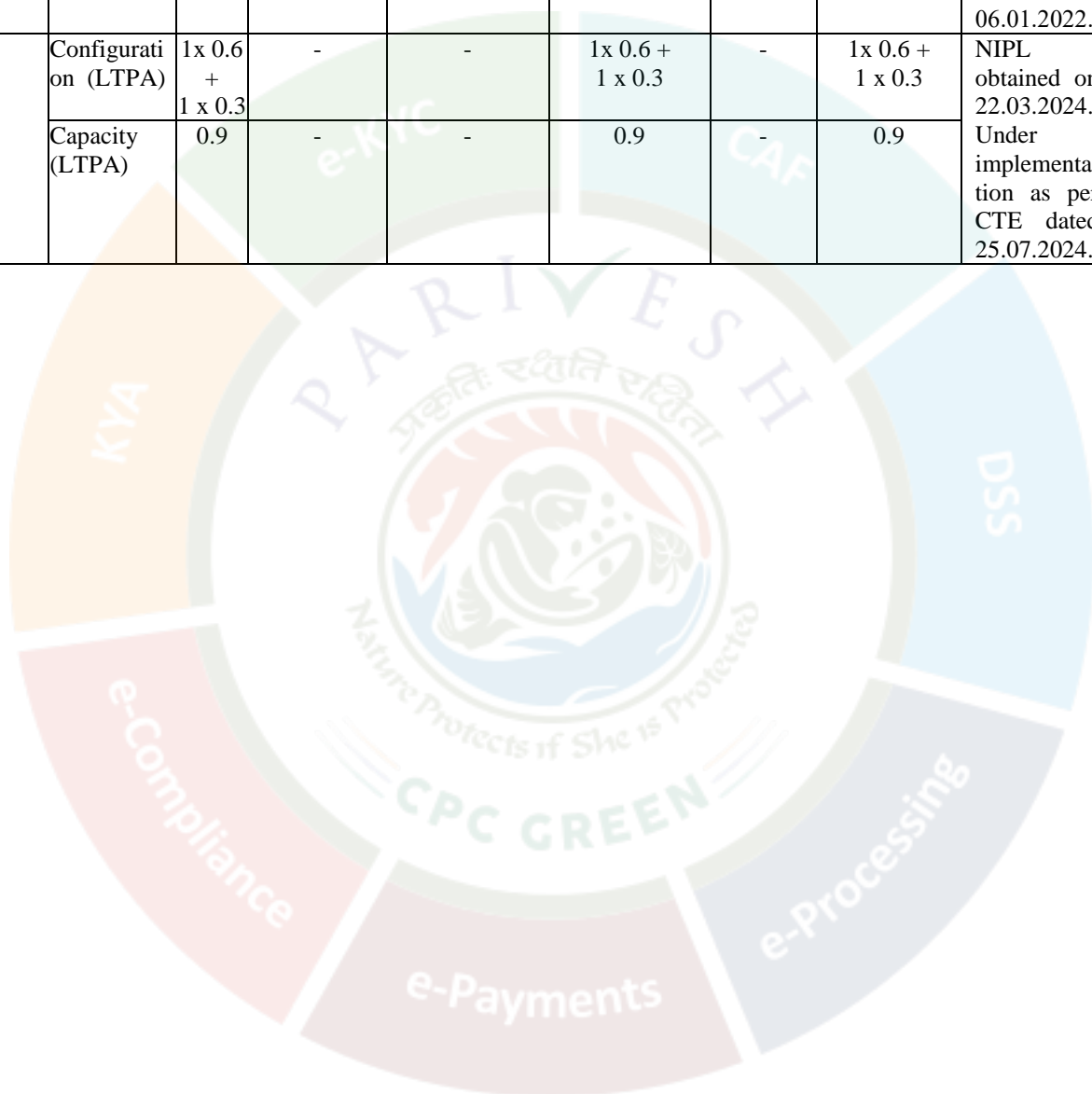
S. N	Particulars	Details																																										
i.	Elevation of the project site	210 m - 242 m Above Mean Sea Level.																																										
j.	Involvement of Forest land if any.	Forest Clearance for 119.264 Hectare has been obtained vide F. No. 8-27/2009-FC dated 10th Feb., 2011.																																										
k.	Water body exists within the project site as well as study area	<p><b>Plant site:</b></p> <table border="1"> <thead> <tr> <th>Water body</th><th>Distance</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Matwali Nala/Nadi</td><td>Passing near the raw water reservoir area.</td><td>NE project boundary</td></tr> <tr> <td>Seasonal Stream</td><td>Originating from the plant area near solar plant.</td><td>SW direction from the main plant site.</td></tr> <tr> <td>Seasonal Nala</td><td>Passing through the raw water reservoir area</td><td>Western project boundary</td></tr> </tbody> </table> <p><b>Study area:</b></p> <table border="1"> <thead> <tr> <th>Water body</th><th>Distance (Km)</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Hirakud Reservoir (Ramsar Wetland)</td><td>2.0</td><td>SW direction</td></tr> <tr> <td>Bhedan River</td><td>3.5</td><td>NW direction</td></tr> <tr> <td>Makarkurha Nala</td><td>5.0</td><td>SSE direction</td></tr> <tr> <td>Kharkhari Nala</td><td>5.5</td><td>NNW direction</td></tr> <tr> <td>Telen Nadi</td><td>6.5</td><td>NE direction</td></tr> <tr> <td>Bhima Jor</td><td>6.0</td><td>ENE direction</td></tr> <tr> <td>Majir Jor</td><td>7.5</td><td>SE direction</td></tr> <tr> <td>Sankri Nala</td><td>9.0</td><td>South direction</td></tr> <tr> <td>IB River</td><td>9.0</td><td>West direction</td></tr> </tbody> </table> <p><i>Apart from the above, few seasonal Nallahs and streams are also present within the 10 km radius study area which remain active during rainy season</i></p>	Water body	Distance	Direction	Matwali Nala/Nadi	Passing near the raw water reservoir area.	NE project boundary	Seasonal Stream	Originating from the plant area near solar plant.	SW direction from the main plant site.	Seasonal Nala	Passing through the raw water reservoir area	Western project boundary	Water body	Distance (Km)	Direction	Hirakud Reservoir (Ramsar Wetland)	2.0	SW direction	Bhedan River	3.5	NW direction	Makarkurha Nala	5.0	SSE direction	Kharkhari Nala	5.5	NNW direction	Telen Nadi	6.5	NE direction	Bhima Jor	6.0	ENE direction	Majir Jor	7.5	SE direction	Sankri Nala	9.0	South direction	IB River	9.0	West direction
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l.	Existence of ESZ / ESA / national park / wildlife Sanctuary /	There is no ESZ/ ESA/ National park / Wildlife sanctuary/ Biosphere reserve/ Tiger reserve/ Elephant reserve etc. within the study area. Other than the above, there are 10 RF within the 10 km radius study area																																										

S. N	Particulars	Details						
	biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area							
m.	Project cost	The estimated cost for the project will be Rs 10645 Crores						
n.	EMP cost	<table> <tr> <th>EMP</th><th>Capital (Rs. in Lakhs)</th><th>Recurring (Rs. in Lakhs)</th></tr> <tr> <td></td><td>Rs 965.97 Crores</td><td>Rs. 13.92 Crores</td></tr> </table>	EMP	Capital (Rs. in Lakhs)	Recurring (Rs. in Lakhs)		Rs 965.97 Crores	Rs. 13.92 Crores
EMP	Capital (Rs. in Lakhs)	Recurring (Rs. in Lakhs)						
	Rs 965.97 Crores	Rs. 13.92 Crores						
o.	Employment opportunity	The employment generation from the proposed expansion project will be 1305.						
p.	Water and Power requirement	total water requirement after expansion will be 57798 KLD Total power requirement for the proposed plant is estimated to be 1024 MW						
q.	CPA/SPA	The plant site is not located in CPA/SPA						

The unit configuration and capacity of existing and proposed project is given as below:

S. No.	Plant Equipment/ Facility		Existing Facilities as per EC dated 29 <sup>th</sup> Nov., 2012 and subsequent amendment dated 14 <sup>th</sup> June 2013 and 14 <sup>th</sup> Aug., 2018 and NIPL dated 20 <sup>th</sup> Dec., 2021 and 22 <sup>nd</sup> March, 2024				Proposed Units	Final (Implemented + Proposed)	Remarks
			Total (A + B)	Implemented (As per CTO) (A)	Unimplemented (B)	Under Implementation			
1.	Aluminium Smelter	Configuration (no.)	720 Pots	360 Pots (2 x 180)	360 Pots	-	180 Pots	540 Pots	*NIPL for 1 LTPA Recycled Metal has been obtained on 22.03.2024. CTO obtained for 1.0 LTPA addition of Purchased Recycled Metal dated 06.03.2025.
		Capacity (LTPA)	7.4	3.8 + 1.0 (Recycled metal)* = 4.8	3.6	-	2.0	6.8	
2.	Captive Power Plant	Configuration (MW)	11 x 150	6 x 150	5 x 150	-	1 x 180 (Gas/ Oil based) + 1 x 150 (Coal Based)	7 x 150 (Coal Based) + 1 x 180 (Gas/ Oil based)	180 MW - Gas/Oil fired Turbine-based Combine Cycle Power Plant & 150 MW - Coal based Thermal Power Plant (for emergency backup only).
		Capacity (MW)	1650	900	750	-	330	1230	
3.	FRP Plant	Configuration (LTPA)	2 x 1.70	1 x 1.70	-	1 x 1.70	-	2 x 1.70	NIPL obtained on 20.12.21 CTO obtained for 1.70 LTPA FRP facility dated 13.02.2025. Under implementation FRP Phase 2: 1.70 LTPA
		Capacity (LTPA)	3.40	1.70	-	1.70	-	3.40	

S. N o.	Plant Facility	Equipment/	Existing Facilities as per EC dated 29 <sup>th</sup> Nov., 2012 and subsequent amendment dated 14 <sup>th</sup> June 2013 and 14 <sup>th</sup> Aug., 2018 and NIPL dated 20 <sup>th</sup> Dec., 2021 and 22 <sup>nd</sup> March, 2024				Proposed Units	Final (Implemented + Proposed)	Remarks
			Total (A + B)	Implemented (As per CTO) (A)	Unimplemented (B)	Under Implementation			
									as per CTE dated 06.01.2022.
4.	WFA Plant	Configuration (LTPA)	1x 0.6 + 1 x 0.3	-	-	1x 0.6 + 1 x 0.3	-	1x 0.6 + 1 x 0.3	NIPL obtained on 22.03.2024.
		Capacity (LTPA)	0.9	-	-	0.9	-	0.9	Under implementation as per CTE dated 25.07.2024.



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

Aditya Aluminium appointed XIM University, Bhubaneswar (Odisha) for detailed socio-economic survey of the villages nearby to the plant site to identify the needs of the villages. Based on the Need based assessment, the company has allocated Rs 127.74 Crores for socio economic developmental activities in the nearby villages.

S. No	Particulars	Gap Identified	Recommendation (Activities to be done)	Year wise					Tentative Budget (Rs. in Crores)
				1	2	3	4	5	
1	Infrastructure Development - Water	Water shortage for potable and sanitation purpose	Household drinking water supply	2	2	2	2	2	10
2	Green Cover in village	Reduce carbon footprint and air pollution	Develop a rural dense forest development and maintenance (Per acre per Panchayat per year)	2	2	2	2	2	10
3	Infrastructure for villages	Basic drainage system	Provide drainage system to villages	1.5	1.5	1.5	1.5	1.5	7.5
4	Infrastructure for villages	Solid waste management system	Educate villagers to segregate the decomposable waste and other plastic wastes. Collect the wastes from a common bin place at strategic locations. The collected wastes are segregated in a facility located in the panchayat. Cost of operations is also added.	2	2	2	2	2	10

S. No	Particulars	Gap Identified	Recommendation (Activities to be done)	Year wise					Tentative Budget (Rs. in Crores)
				1	2	3	4	5	
5	Infrastructure for villages	Common facilities for SHGs	Building a 1000 sq.ft. facility for SHG members to offer training programs and also to use it for their business activities.	1	1	1	1	1	5
6	Kalyan Mandap for villages	Cultural and social center	Building 2000 Sq Ft for Villagers for conducting various functions in the school	2	2	2	2	2	10
7	Infrastructure for villages	Street lights	Provide solar/conventional street light or high Mast light in village	2	2	2	2	2	10
8	Infrastructure for villages	Cold storage	Cold storage costs Rs 70 Lakhs. Govt. of Odisha offers a 35% subsidy	1	1	1	1	1	5
9	Skill Development		Organize training programs common for all villages	2	2	2	2	2	10
10	Healthcare	Healthcare system for villagers	Mobile clinic	1.5	1.5	1.5	1.5	1.5	7.5
11	Healthcare	Alcohol deaddiction	Regular periodic alcohol de-addiction counselling emphasizing on individual counseling, group counseling, cognitive-behavioral therapy,	0.85	0.25	0.25	0.25	0.25	1.85

S. No	Particulars	Gap Identified	Recommendation (Activities to be done)	Year wise					Tentative Budget (Rs. in Crores)
				1	2	3	4	5	
			motivational interviewing, relapse prevention, and finally family and relationship counseling						
12	Integrated Infrastructure Development	Need for sustainable and resilient rural communities	Developing eco-friendly model village	5	5	5	5	5	25
13	Sports and culture	Local Sports and culture	Developing sports and cultural initiatives in villages in each panchayat promoting local talent	0.5	0.5	0.5	0.5	0.5	2.5
14	Education	Education support	School support program in all villages of 6 GPs	1.2 2	1.2 2	1.2 2	1.1 2	1.1 1	5.89
15	Sustainable livelihood	Livelihood support	Different livelihood support program for SHG women and farmers	1.5	1.5	1.5	1.5	1.5	7.5
<b>Total Budget</b>									<b>127.74</b>