



सत्यमेव जयते

File No: IA-J-11015/7/2024-IA-II(NCM)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 22/02/2024



To,

M/s
KALINGA ALUMINA LIMITED
Adani Corporate House, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad-382421,
AHMADABAD, GUJARAT, 382421
Kalinga.Alumina@adani.com

Subject: **Proposed Kutrumali Bauxite block of M/s Kalinga Alumina Limited for mining of Bauxitewith production capacity of 4.0 MTPA (ROM) and setting up of Crushing/ Screening facilities of 800 TPH capacity within the mine lease area of 701.792 ha, located at Villages Kutrumali, Lelingapadar, Rakhigurha and Bhikapanga, Tehsil-Thuamul Rampur & Kashipur, District-Kalahandi & Rayagada, Odisha – Terms of Reference – reg.**

Sir/Madam,

This is in reference to your application for IA/OR/MIN/452775/2024 dated 3.1.2024 for grant of Terms of Reference to the project for proposed Kutrumali Bauxite block of M/s Kalinga Alumina Limited for mining of Bauxitewith production capacity of 4.0 MTPA (ROM) and setting up of Crushing/ Screening facilities of 800 TPH capacity within the mine lease area of 701.792 ha, located at Villages Kutrumali, Lelingapadar, Rakhigurha and Bhikapanga, Tehsil-Thuamul Rampur & Kashipur, District-Kalahandi & Rayagada, Odisha.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24A0000OR5444519N
(ii) File No.	IA-J-11015/7/2024-IA-II(NCM)
(iii) Clearance Type	TOR
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vi) Sector	Non-Coal Mining
(vii) Name of Project	Kutrumali Bauxite Block

(viii) Name of Company/Organization	KALINGA ALUMINA LIMITED
(ix) Location of Project (District, State)	KALAHANDI, ODISHA
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.
4. The proposal was considered by the EAC in its 26th meeting held on 31st January & 1st February, 2024. The mine lease area falls under two Districts namely Kalahandi and Rayagada. The total mine lease area is 701.792 Ha, out of which 195.050 Ha is a forest land, 73.436 Ha is an agriculture land, 5.377 Ha is a grazing land, 427.099 Ha is a waste land and 0.83 Ha falls under settlements. The Project Proponent informed the EAC that proposal for diversion of 195.05 ha for diversion of forest land has been submitted vide online proposal no: FP/OR/MIN/QRY/456297/2023 dated 21.12.2023. There is no National Park, Wildlife Sanctuary, Elephant/Tiger Reserves etc. within 10 km radius study area. The Project Proponent also informed the EAC that the bauxite excavated from Kutrumali mine will be crushed and transported by a dumper/truck to rail station Shikarpai/Tikiri for onward transportation to different alumina refineries and used for production of metallurgical grade alumina. The length of the transportation route by road will be 54 km. About 1.0 MTPA will be transported by road through SH-44. The existing traffic scenario is 15,000 PCU. At later date, crushed bauxite will be transported by long distance conveyor from mines to refinery. The length of the conveyor will be 22km and about 4km length of several stretches of conveyor will be passing through the forest area. Approximate timeline for commission of conveyor will be 3 years. An area of 376.133 ha will be excavated and an area of 296.242 ha will remain undisturbed. The EAC asked the Project Proponent to explore the possibility of using Ripper-Dozer combination with supporting study. R & R plan will be prepared and will be submitted to District Administration for its approval. The EAC asked the Project Proponent that whether any court case pending against the project or not. The Project Proponent informed the EAC that L&T filed a W.P. (C) 4301 of 2021 seeking direction to Central Govt. to issue ML of Sijimali and Kutrumali Bauxite Blocks. Then, NIT invited bids for grant of mining lease *inter alia* for Kutrumali Bauxite Block for an area of 701.792 Ha. Then, L&T filed a IA 16185 of 2022 seeking stay on auction process. Thereafter, the Hon'ble High Court of Orissa vide order dated 02.03.2023 pronounced its final judgement holding that L&T was not entitled to get the ML for Kutrumali Bauxite Block as it had failed to comply with the conditions of the prospecting license and the application had also lapsed due to MMDR Amendment Act, 2021. Then, SLP (C) No. 6163 of 2023 was filed before the Hon'ble Supreme Court by L&T against the judgement of the Hon'ble High Court of Orissa dated 02.03.2023. As a matter of abundant caution, Intervention Application was filed by M/s. Kalinga Alumina Ltd (Earlier Mundra Aluminium Ltd) on 06.03.2023 before the Hon'ble Supreme Court in SLP (C) No. 6263 of 2023 seeking to be made a party in the case and the application was allowed. Then, the SLP was listed on 10.04.2023, 24.04.2023, 15.05.2023, 05.09.2023, 19.10.2023 and 23.01.2024. Further, the Project Proponent informed the EAC that next date of hearing is yet to be notified by the Hon'ble Supreme Court and no stay was granted by the Hon'ble Supreme Court. The EAC asked the Project Proponent to submit the details of court case in chronological sequence and an affidavit regarding court case. Accordingly, the Project Proponent vide email dated 31.01.2024 submitted the details of court case in chronological sequence and an affidavit dated 31.01.2024 stating that the company will comply with the order of the Hon'ble Supreme Court. After detailed deliberations made by the Project Proponent and the EIA Consultant, the EAC in its meeting held during 31st January & 1st February, 2024, under the provisions of EIA Notification, 2006 and its subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s Kalinga Alumina Limited for mining of Bauxite in Kutrumali

Bauxite block with production capacity of 4.0 MTPA (ROM) and setting up of Crushing/ Screening facilities of 800 TPH capacity within the mine lease area of 701.792 ha, located at Villages Kutrumali, Lelingapadar, Rakhigurha and Bhikapanga, Tehsil-Thuamul Rampur & Kashipur, District-Kalahandi & Rayagada, Odisha for undertaking detailed EIA/EMP study subject to the certain specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects.

5. The matter was examined in the EAC in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and the undersigned is directed to say that the Ministry of Environment Forest & Climate Change after accepting the recommendation of EAC (Non-Coal Mining) during its 26th meeting held during on 31st January & 1st February, 2024, hereby accords Specific and Standard Terms of Reference (ToR) in favour of M/s Kalinga Alumina Limited for mining of Bauxite in Kutrumali Bauxite block with production capacity of 4.0 MTPA (ROM) and setting up of Crushing/ Screening facilities of 800 TPH capacity within the mine lease area of 701.792 ha, located at Villages Kutrumali, Lelingapadar, Rakhigurha and Bhikapanga, Tehsil-Thuamul Rampur & Kashipur, District-Kalahandi & Rayagada, Odisha for undertaking detailed EIA/EMP study subject to the specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects mentioned at Annexure
7. The details of the project is at Annexure 2
7. The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report, as per the notification S.O 751 (E) dated 17.02.2020. The instant TOR is valid up to four years from the date of issuance of TOR.
8. The Project Proponent should submit the EIA/EMP report as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006 after incorporating the details of public hearing conducted and covering the above-mentioned issues, to take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
6. 9. The Ministry reserves the right to stipulate additional conditions, if found necessary.
10. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
11. This issues with the approval of the Competent Authority.

7.

Copy To

- i. **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- ii. **The Chief Secretary**, Government of Odisha, Secretariat, Bhubaneswar.
- iii. **The Secretary**, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
- iv. **The Secretary**, Department of Mines and Geology, Government of Odisha, Secretariat, Bhubaneswar.
- v. **The Secretary**, Department of Forests, Government of Odisha, Secretariat, Bhubaneswar.
- vi. **The Secretary**, Department of Steel and Mines, Government of Odisha, Secretariat, Bhubaneswar.
- vii. **The Member Secretary**, Odisha Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
- viii. **The Deputy Director General of Forests (C)**, Ministry of Environment, Forest and Climate Change, Regional Office, A/3, Chandrasekharpur, Bhubaneswar – 751023.

- ix. **The Chief Wildlife Warden**, Prakurti Bhawan, 5th floor, BDA Apartment, Nilakanthanagar, Nayapalli, Bhubaneswar-751012, Odisha.
- x. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- xi. **The Controller General**, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur-440001.
- xii. **The Member Secretary**, Central Ground Water Board, Ministry of Agriculture and Irrigation, 12/1 Jam Nagar House, Shahjahan road, New Delhi 110011.
- xiii. **The District Collector**, Kalahandi & Rayagada District, Govt. of Odisha.
- xiv. **Guard File.**
- xv. **PARIVESH Portal.**

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Cost Benefit Analysis

S. No	Terms of Reference
1.1	In view of the agricultural land proposed under the mining lease area, the Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries at the time of submission of EC proposal.

2. Stage-i Forest Clearance

S. No	Terms of Reference
2.1	The Project Proponent needs to submit the Stage-I Forest Clearance for diversion of 195.05 ha for diversion of forest land at the time of submission of EC proposal.

3. Ripper-dozer

S. No	Terms of Reference
3.1	The Project Proponent needs to explore the possibility of using Ripper-Dozer combination with supporting study.

4. Court Case In Hon'ble Supreme Court

S. No	Terms of Reference
4.1	The instant Terms of Reference would be subject to the outcome of the SLP (C) No. 6163 of 2023 filed before the Hon'ble Supreme Court.

5. Environment Monitoring & Emp

S. No	Terms of Reference
5.1	The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.

6. Action Plan For Grazing Land

S. No	Terms of Reference
6.1	The Project Proponent needs to submit the action plan for making necessary alternative arrangements to provide alternate areas for livestock grazing in consultation with the State Government. Project Proponent should submit the plan for its protection and accessibility for the entire life of the mine.

7. Road Transportation

S. No	Terms of Reference
7.1	The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the center on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road, existing and additional traffic load to the NH/SH/MDR and the carrying capacity of the road. Project Proponent needs to submit SOP for transportation and statutory permission from the State Govt.

8. Normative And Peak Total Excavation

S. No	Terms of Reference
8.1	The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration.

9. Ecology Restoration Plan

S. No	Terms of Reference
9.1	The Project Proponent needs to submit the ecology restoration plan for mined out pits for using as water reservoir/backfilled area.

10. State Forest Department Forest Flora Fauna Etc

S. No	Terms of Reference
10.1	The Project Proponent needs to submit the letter from the State Forest Department regarding whether the instant mine leases fall under Aravalli range or not, involvement of forest land in the mine lease area, authenticated list of flora and fauna as per the latest Wildlife Protection Amendment Act, 2022, involvement of National Park, Wildlife Sanctuary, ESA/ESZ within 10km

S. No	Terms of Reference
	radius of the study area.

11. Scientific Study On Flora And Fauna

S. No	Terms of Reference
11.1	The Project Proponent needs to submit the detailed scientific study on flora and fauna and also to highlight on the endangered species. The Project Proponent needs to verify the list as per the latest Wildlife Protection Amendment Act, 2022.

12. Groundwater

S. No	Terms of Reference
12.1	The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
12.2	The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
12.3	The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.

13. Action Plan For Undertaking

S. No	Terms of Reference
13.1	The Project Proponent needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of tar road/cart tracks, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored.

14. Mine Lease Area Falls Under Two Districts

S. No	Terms of Reference
14.1	The EAC noted that the mine lease area falls under two Districts namely Kalahandi and Rayagada. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.

15. R&r Plan

S. No	Terms of Reference
15.1	The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. The Project Proponent needs to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. Further, PP needs to submit the possession certificate and timeline for acquiring the land at the time of submission of EC proposal.

16. Drone Survey

S. No	Terms of Reference
16.1	The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

17. Year Wise Sequence Of Mining

S. No	Terms of Reference
17.1	The Project Proponent needs to submit the year wise sequence of mining operation and plan for backfilling considering the site features and their impacts and mitigation.

18. Enumeration Tree Cutting, Tree Plantation

S. No	Terms of Reference
18.1	The Project Proponent needs to undertake the enumeration of the species within the mine lease area before cutting. The Project Proponent also needs to submit the compensatory afforestation plan for the no. of trees to be cut in the mine lease area and also to explore the possibility of tree transplantation.

Standard Terms of Reference for (Mining of minerals)

1. Project Details

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
1.2	A copy of the document in support of rightful lessee of the mine should be submitted. In case of new mines copy of LoI granted by State Government to be submitted. PP should ensure that LoI is valid at the time of grant of ToR. PP should submit the copy of lease deed/supplementary lease deed/extension letter/transfer deed, from its initial grant to subsequent renewals/ transfer/extension

S. No	Terms of Reference
	of validity.
1.3	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
1.4	PP should submit the District Survey Report (DSR) as per S.O. 3611(E) dated 25.07.2018 in case of minor minerals.
1.5	Brief of proposal to be submitted which include total excavation of the material required for the production of certain quantity of the minerals, location of the project, mining lease area, latitude longitude, seismic zone etc. In case of expansion project details of expansion viz. expansion in mining lease area or expansion in production of any particular mineral or expansion in total excavation, latest certified Compliance report (CCR) from IRO of conditions granted in existing EC needs to be submitted.
1.6	The PP should submit the real-time aerial video footage & video of the mining lease area and of the transportation route.
1.7	All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
1.8	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
1.9	The PP should collect the Baseline data (BLD) in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level.
1.10	In case of sand mining, the entire mining lease area should be divided suitably into grids of 25 m x 25 m with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid needs to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank. PP should comply with the sustainable sand mining management guidelines 2016 and enforcement and monitoring guidelines, 2020 etc.
1.11	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

S. No	Terms of Reference
1.12	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
1.13	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
1.14	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
1.15	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
1.16	Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.

2. Forest

S. No	Terms of Reference
2.1	PP shall submit a certificate from Chief Conservator of Forests regarding involvement of Forest Land in the mining lease area if any. In case forest land is involved i) PP should submit the proof of application made for obtaining forest clearance and ii) a map clearly showing the forest & non-forest area.
2.2	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
2.3	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
2.4	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

3. Court Matters

S. No	Terms of Reference
3.1	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

4. Land Environment

S. No	Terms of Reference
4.1	PP should submit the details of survey number [viz. survey no, area in hectare, classification of land (government, private, forest, grazing land etc.), villages] duly authenticated by State Government,

S. No	Terms of Reference
	falling in the mining lease area.
4.2	The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
4.3	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
4.4	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

5. Wildlife

S. No	Terms of Reference
5.1	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
5.2	A detailed biological study of the study area [core zone and buffer zone] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. PP shall submit list of Schedule-1 species present in core and buffer zone duly authenticated by CWLW. In case of any Scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest/Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost. Proof of its submission of conservation plan to the CWLW needs to be submitted.
5.3	PP shall submit a certificate from Chief Wildlife Warden regarding distance of mining lease from the protected area falling within 10 KM of the mining lease. In case project requires clearance under Wildlife (Protection) Act, 1972 then copy of application made for the same needs to be submitted.

6. Baseline Environment

S. No	Terms of Reference
6.1	One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season); December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The

S. No	Terms of Reference
	mineralogical composition of PM10, particularly for free silica, should be given.
6.2	Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The windrose showing pre-dominant wind direction may also be indicated on the map.
6.3	The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this, PP should submit the original test reports and certificates of the labs from which samples were analyzed.

7. Water Environment

S. No	Terms of Reference
7.1	The water requirement for the Project, its availability and source should be furnished. Quantity of surface or ground water to be used for the Project should be indicated. A detailed water balance should also be provided. Submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided. The capital and recurring expenditure to be incurred needs to be submitted.
7.2	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

8. Hydro Geology

S. No	Terms of Reference
8.1	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.
8.2	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
8.3	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working bench will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished. In case of surface water is proposed to be utilized then Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

9. Transportation

S. No	Terms of Reference
9.1	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

10. Land Acquisition And R&r

S. No	Terms of Reference
10.1	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
10.2	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need-based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

11. Socio-economic Environment

S. No	Terms of Reference
11.1	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
11.2	Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
11.3	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
11.4	Activity-wise time-bound action plan on the issues raised and commitment made during public hearing to be submitted as part of the final EMP Report in compliance of the Ministry's OM F.No.22-65/2017-IA.III dated 30th September, 2020.

12. Environmental Monitoring And Management

S. No	Terms of Reference
12.1	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.
12.2	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

13. Critically Polluted Areas, Aravali & Crz

S. No	Terms of Reference
13.1	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
13.2	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

14. Risk Assessment & Disaster Management

S. No	Terms of Reference
14.1	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
14.2	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
14.3	A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.

15. Miscellaneous

S. No	Terms of Reference
15.1	<p>The general points are also to be followed: - a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. h) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable. i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.</p>

Additional Terms of Reference

N/A



The Details of the project

The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.
- ii. The mine lease area is located between Latitude: 19°29'0.825"N-19°25'50.288" N and Longitude: 83°13'10.222"E- 83°10'17.920" E. The mine lease area falls under the Survey of India Toposheet No: E44F3 (65M/3) and falls in Seismic Zone – II.
- iii. Details of Mine Lease:

S. No	Prospecting License/Letter of Intent (Lol)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent (Lol) for grant of mining lease vide Lr.No: 2040/SM-MC2-MC-0003-2023/SM, Bhubaneswar in favour of M/s Mundra Aluminium Limited for a period of 50 years.	27.02.2023	Bauxite (Major)	Lol is valid for a period of three years from the date of its issuance	Govt. Of Odisha, Steel & Mines Dept.,	701.792 ha
2	Change in name of entity from M/s Mundra Aluminium Limited to M/s Kalinga Alumina Limited vide Lr.No. 5995/SM-MC2-MC-	09.06.2023	Bauxite (Major)	-	Govt. Of Odisha, Steel & Mines Dept.,	-

0012-2023/SM, Bhubaneswar					
---------------------------	--	--	--	--	--

iv. Land Use/Land Cover of the Mine Lease Area:

Forest land	195.050 Ha
Agriculture land	73.436 Ha
Grazing land	5.377 Ha
Waste land	427.099 Ha
Settlements	0.83 Ha
Total Mining lease area (MLA), ha	701.792 Ha
Private land for crusher, workshop & other infrastructure outside the MLA	-

v. Mining plan details:

Mining Plan along with Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	MCDR-MiFLOBXT/8/2023-BBS-IBM RO BBS
	Date	22.11.2023
	Mineral & (Major/Minor)	Bauxite
	Mine Lease Area, Ha	701.792 ha (as per DGPS)/ 700.554 ha (as per RoR)
	Validity	5 years from the date of execution of the mining lease
Mining Parameters	Quantitative Description	
Method of Mining	Opencast Mechanized Mining with drilling and blasting	
Total Mineral Resource	127.737 MT	
Mineable Reserves	109.647 MT	
Life of mine	29 years	
Mine Bench Height & Bench Width	6m & 10m	
Individual bench slope	70°	
Overall pit slope	30°	
Details of existing/ proposed Crusher	Project Proponent reported that the crushing plant and conveyor systems have been designed for 305 days' operation per year with 3 shifts operation per day. The size of the product to be obtained after crushing in the plant will be 150 mm (d85). For 4.0MTPA of peak rated capacity, the crushing/ screening plant requirement would be 800 TPH. It is proposed to install crushing and screening plants in phases 400 TPH (1 no.) for 2 MTPA RoM production and 400 TPH (2 nos.) for 4.0 MTPA production. One RoM ore stockpile of around 50,000 tonnes capacity will be maintained near the crusher plant.	
Mineral Beneficiation	Not involved.	

Transportation details including capacity of dumper/tipper, mode of transport and distance	The bauxite excavated from Kutrumali mine will be crushed and transported by a dumper/truck to rail station Shikarpai/Tikiri for onward transportation to different alumina refineries and used for production of metallurgical grade alumina. At later date, crushed bauxite transportation by long distance conveyor from mines to refinery shall be evaluated and implemented in due course of time. Intra-mine movement of ore and OB shall be carried out using dumpers of appropriate capacity as per provisions of the approved mine plan.
Generation of Topsoil/OB & its Management during plan period & conceptual period	During initial five-years, there will be no generation of top soil.
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	The waste generated in course of pre-mining development and subsequent mining operations will consist of khondalite. The rate of generation of waste is expected to be of the order of 1.59 Mm ³ or 3.18 MT per year. The average waste to ore ratio during the first 5 years of operations is estimated to be about 0.71:1. The waste materials will be dumped systematically, as per prudent industry practice. The waste stacked on ground during the initial years of operation will be utilized to partially fill the worked-out areas from time to time as per provisions of the approved mining plan.

vi. Water requirement:

Total water requirement	720 KLD
Source	Water will be sourced from nearby surface water stream (Naragul Nala) after obtaining necessary permission.

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest:

Particulars	Particular's Name	Distance & Directions
Village/Town	Kashipur village	15.3 km, SSW
Highway	SH-44	5.20 km, W
Railway Station/Railway line	Shikarpai	45 km, SSE
Water Bodies	Naragul nala	~2 km, N

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	Yes	An area of 195.05 ha of forest land falls within the ML area. The Project Proponent has submitted the proof of submission of proposal for diversion of 195.05 ha for diversion of

		forest land vide online proposal no: FP/OR/MIN/QRY/456297/2023 dated 21.12.2023.
National Park	No	There is no National Park, Wildlife Sanctuary, Elephant/Tiger Reserves etc. within 10 km radius study area.
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ)/Eco-Sensitive Area (ESA)	No	-
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	-
Wildlife Conservation Plan	-	-

ix. Green belt/Plantation details:

Proposed area for green belt/plantation and no. of saplings proposed along with survival rate and budget	Sr. No	Year	Green Belt Location (s)	Area Proposed to be Covered (Ha)	Number of Plants Proposed	Expected Survival Rate (%)	Estimated Expenditure (INR)
	1.	Year 1	Statutory Barrier	0.212	424	75	59,360
	2.	Year 2	Statutory Barrier & Dump	0.212	424	75	59,360
	3.	Year 3	Statutory Barrier & Dump	9.940	19880	75	27,83,200
	4.	Year 4	Statutory Barrier & Dump	1.312	2624	75	3,67,360
	5.	Year 5	Statutory Barrier Dumps & Inpit Dumps	15.735	31470	75	44,05,800

i. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent submitted that minimal displacement of people is envisaged. R & R plan will be prepared and will be submitted to District Administration for its approval.					
	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
	Proposed Number of Project Affected Person (PAP)	200	0	0	0	0
	Proposed Number of Person for Alternate Arrangement for Sustainable Livelihood	0	0	0	0	0
	Proposed Number of Person for Skill Training	10	10	10	10	10

Proposed Number of Person Likely to Get Direct Employment	104	0	0	0	0
Proposed Number of Person Likely to get indirect Employment	30	40	50	60	70
Proposed Project Affected Families Skilled and Absorbed	5	5	5	5	5
Proposed Number of Project Affected Families (PAF)	82	0	0	0	0

ii. Court case details:

Court Case, No and its present status	The Project Proponent submitted that L&T filed a W.P. (C) 4301 of 2021 seeking direction to Central Govt. to issue ML of Sijimali and Kutrumali Bauxite Blocks. Then, NIT invited bids for grant of mining lease <i>inter alia</i> for Kutrumali Bauxite Block for an area of 701.792 Ha. Then, L&T filed a IA 16185 of 2022 seeking stay on auction process. Thereafter, the Hon'ble High Court of Orissa vide order dated 02.03.2023 pronounced its final judgement holding that L&T was not entitled to get the ML for Kutrumali Bauxite Block as it had failed to comply with the conditions of the prospecting license and the application had also lapsed due to MMDR Amendment Act, 2021. Then, SLP (C) No. 6163 of 2023 was filed before the Hon'ble Supreme Court by L&T against the judgement of the Hon'ble High Court of Orissa dated 02.03.2023. As a matter of abundant caution, Intervention Application was filed by M/s. Kalinga Alumina Ltd (Earlier Mundra Aluminium Ltd) on 06.03.2023 before the Hon'ble Supreme Court in SLP (C) No. 6263 of 2023 seeking to be made a party in the case and the application was allowed. Then, the SLP was listed on 10.04.2023, 24.04.2023, 15.05.2023, 05.09.2023, 19.10.2023 and 23.01.2024. Further, the Project Proponent submitted that the next date of hearing is yet to be notified by the Hon'ble Supreme Court and no stay was granted by the Hon'ble Supreme Court. The Project Proponent vide email dated 31.01.2024 submitted the details of court case in chronological sequence and an affidavit dated 31.01.2024 stating that the company will comply with the order of the Hon'ble Supreme Court.
Undertaking by Project Proponent w.r.t court case	

iii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted the Affidavit in a non-judicial stamp paper of Rs 100 dated 20.01.2024 stating that they shall comply with all the statutory requirements & judgment of Hon'ble Supreme Court order dated 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors before grant of ToR/EC.
---	--

iv. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 425Crores
Employment	246 persons

