



State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834004

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Letter No : EC/SEIAA/2018-19/2568/2018/

Ranchi, Date :

To: **General Manager,**
M/s Hindalco Industries Ltd., Jharkhand,
Mines Division, Court Road,
Lohardaga – 835302.

Sub: Prescribing of ToR to “Kujam 1 Bauxite Mine of M/s Hindalco Industries Ltd. (HIL), at Village : Kujam, Dewragini & Chatam, Taluka : Bishunpur, Dist. : Gumla, Jharkhand (80.87 Ha). (Proposal No. : SIA/JH/MIN/29236/2018) - regarding.

Ref: Your application no.- HIL/LHD/SEIAA/KUJ-I/008, dated – 07.04.2022.

It is in reference to the project to “Kujam 1 Bauxite Mine of M/s Hindalco Industries Ltd. (HIL), at Village : Kujam, Dewragini & Chatam, Taluka : Bishunpur, Dist. : Gumla, Jharkhand (80.87 Ha)” submitted by you for seeking Terms of Reference (ToR).

This is a existing mine which has been taken for appraisal on 13.05.2022.

The proposal was considered by the committee to determine the “Terms of Reference (TOR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 1 (a) (i) Mining of Minerals & 2(b) Mineral Beneficiation as per EIA Notification, 2006.

Hindalco Industries Limited (HIL) is a flagship company of Aditya Birla Group and is non-ferrous power house. The company is a public limited company registered under Indian Companies Act, 1956 having its Registered Office at Mumbai, India.

Jharkhand Bauxite Mines division of HIL caters Bauxite requirement of its alumina refineries located at MURI in Jharkhand and Renukoot in Sonbhadra district of U.P. M/s. Hindalco Industries Limited is operating an existing Kujam I Bauxite Mine (Area- 80.87 ha) with production Capacity of Bauxite 150000 TPA in Villages: Kujam, Dewragini & Chatam, Taluka: Bishunpur, District: Gumla, Jharkhand. Total Mining Lease area is 80.87 ha out of which 74.27 Ha Rayati land and 6.60 Ha is GM land.

Environment Clearance for Existing Kujam I Bauxite Mine (Area- 80.87 ha) with granted production capacity 150000 TPA was granted by MoEF& CC, Govt. of India vide letter no. J-11015/240/2005-IA.II(M), dated 14.08.2006.

Initially Mining lease was granted to M/s Indian Aluminium Co. Limited by Department of Mines and Geology, State Government of Jharkhand vide letter no 3/97-964/M dated 07.07.2005 for 20 years. Mining lease was transferred in favor of M/s Hindalco Industries Limited by Department of Mines and Geology, State Government of Jharkhand vide order no. 407/M dated 21.02.2006. Mining lease was executed in favor of M/s Hindalco Industries Limited on 13.03.2006. Validity of Mining lease was extended up to 12.03.2056 as per sub section 8A (3) of MMDR Amendment Act 2015 by State Govt. of Jharkhand vide letter dated 07.01.2017.

PROJECT & LOCATION DETAILS :

S. No.	Particulars	Details
A.	Nature of the Project	Kujam I Bauxite Mine
B.	Size of the Project	
1.	Mining Lease Area	80.87ha
2.	Bauxite Production capacity	150000 TPA
C.	Location Details	
1.	Villages	Kujam, Dewragini & Chatam
2.	Taluka	Bishunpur
3.	District	Gumla
4.	State	Jharkhand
5.	Mine area coordinates	Latitude - 23°17'37.24"N to 23°18'38.31"N Longitude- 84°18'35.81"E to 84°19'21.68"E
6.	Toposheet No of study area	73A/3, 73 A/4, 73A/7 & 73 A/8
D.	Cost Details	
1.	Total Project Cost	Rs. 8.0 Crore/-
2.	Cost for Environment Protection Measures.	Capital Cost: Rs200.0 Lac/- Recurring Cost: Rs 29.00lacs/- per annum
E.	Requirements of The Project	
1.	Water Requirement	23 KLD, Source: Existing rain water harvesting pond created by us during the course of mining.
2.	Manpower Requirement	Approx. 294 persons

Mining details :

S. No.	Particulars	Details
1.	Method of mining	Fully Mechanized Opencast mining

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2.	Total Geological Reserves	0.76 million tonnes (as on 01.04.2020)
3.	Total Mineable reserves	0.63 million tonnes (as on 01.04.2020)
4.	Life of the Mine	5 Years @ 0.15 million TPA
5.	Bench Height	6 m
6.	Bench Width	6m (Minimum)
8.	Elevation Range	1020 to 1046 m AMSL
9.	Present working depth	10 - 12 m
10.	Ultimate Working Depth	10 - 12 m
11.	ROM/Waste Ratio (Tonnes: Cum)	1 : 1.68
12.	Number of Working Days	300 days
13.	Number of shifts per day	2 Shifts

Khata no. & Plot no. of the project :

Khata No.	Plot No.
34	431
34	430
5	429
22	433
77	435
77	436
16	437
55	438
32	439
34	440
51	441
51	442
34	443
77	444
34	445
91	446
58	447
77	448
51	449
58	450
77	451
23	452

34

58

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78	453
77	455
77	456
23	457
91	458
32	459
23	460
8	461
77	462
10	463
34	464
34	465
77	467
78	468
8	469
23	470
8	471
16	472
77	473
91	474
16	475
16	476
91	477
10	478
77	480
78	481
23	482
91	483
8	413
78	414
77	415
16	416
16	417
91	419
16	420
17	421
16	422
32	423
34	424
32	425

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12/5

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34	426
51	427
51	428
8	1
66	2
76	3
54	5
66	6
8	7
54	15
30	404
30	405
4	406
32	407
32	408
4	409
3	411
3	412
3	413
4	414
4	415
4	416
30	417
30	418
30	419
37	420
32	421
32	423
4	424
15	425
3	426
37	427
4	428
4	429
4	430
3	431
4	432
51	433
37	434
4	435

2/1

5/1

1/1

30	436
30	438
37	439
30	440
32	441
32	442
32	444
3	446
37	445
4	447
37	448
37	449
51	450
30	1177
32	1178
37	451
15	453
4	454
15	55
4	56
3	57
3	59
51	60
4	61
51	62
4	63
19	1179
4	464
3	465
3	466
15	468
15	469
22	470
19	472
19	473
51	474
22	475
22	476
3	477
3	478

24/4

5/5

1/1

4	479
4	480
3	481
3	482
3	483
4	485
4	486
32	487
4	489

Land use details :

S. No.	Type of land use	At present (Ha)	At the end of Plan/Conceptual Period (Ha)
1.	Excavated area (Backfilled)	15.02	22.19
	Excavated area (Water Reservoir)	0.86	10.95
	Excavated area (Re- grassing)	4.65	20.73
	Total	19.67	53.87
2.	Road	1.63	0.61
3.	OB Dump	0.52	0.52
4.	Greenbelt	3.16	7.86
5.	Undisturbed area	55.89	18.01
	Total	80.87	80.87

STATUTORY CLEARANCES :

1	DFO Forest Distance	:	DFO, Lohardaga Forest Division vide memo no. 1386, dated 09.06.2021 certified that the proposed project site is adjacent to the forest land.
2	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, South Division, Medininagar vide letter no. 457, dated 19.03.2021 certified that the National Park, Bio-Diversity & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
3	CO certificate	:	The CO, Bishunpur (Gumla) vide letter no. 412, dated 11.10.2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatyan & Register II.

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During the presentation the following documents were sought:

- i. Details of CSR expenditure to be provided.
- ii. Receipt copy of recently submitted EC compliance to MoEF&CC to be provided.
- iii. Receipt copy of certified EC compliance by MoEF&CC to be provided.
- iv. Receipt copy of certified CTO compliance from JSPCB, Ranchi to be provided.
- v. Revise land use with demarcation of safety zone to be provided.
- vi. Details of occupational health report to be provided.

The PAs have submitted the above required documents.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 10, 11, 12, 13 & 14.05.2022, the Committee recommends for issuing of TOR for consideration of SEIAA for undertaking detailed EIA / EMP study and alongwith the following specific conditions as recommended by SEAC.

SEAC, Jharkhand has recommended the ToRs in its 92nd meeting dated 20th, 21st, 22nd & 23rd October, 2021 for undertaking detailed EIA / EMP study and SEIAA, Jharkhand has approved the ToRs in its 94th meeting held on 14th, 15th & 16th June, 2022.

The TORs prescribed for undertaking detailed EIA study are as follows:

1(a) Mining of Minerals & 2 (b) Mineral Beneficiation

- i. 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.
- ii. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- iii. 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.
- iv. 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).



- v. 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.
- vi. 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.
- vii. 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 EIA Report.
- viii. 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.
- ix. The study area will comprise of 10 km 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.
- x. 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.
- xi. 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.
- xii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.



- xiii. 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.
- xiv. 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.
- xv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- xvi. 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.
- xvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- xviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] 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. 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- xix. 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 Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- xx. 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).
- xxi. 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.

- xxii. 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 mineralogical composition of PM10, particularly for free silica, should be given.
- xxiii. Air quality modeling 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 modeling 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 wind roses showing pre-dominant wind direction may also be indicated on the map.
- xxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- xxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- xxvi. 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.
- xxvii. 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.
- xxviii. 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 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.



- xxix. 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 brought out.
- xxx. 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.
- xxxi. 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.
- xxxii. 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.
- xxxiii. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- xxxiv. 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.
- xxxv. 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.
- xxxvi. 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.
- xxxvii. 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.
- xxxviii. 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

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grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

- xxxix. 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.
- xl. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- xli. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- xlii. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- xliii. 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.

2 (b) Mineral Beneficiation

- i. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
- ii. Details of the technology and process involved for beneficiation should be given.
- iii. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
- iv. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
- v. Estimation of the fines going into the washings should be made and its management described.
- vi. Details of the equipment, settling pond etc. should be furnished.
- vii. Detailed material balance should be provided.
- viii. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
- ix. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
- x. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
- xi. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
- xii. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
- xiii. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).



- xiv. It should be clearly indicated 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 EIA Report.
- xv. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
- xvi. The study area will comprise of 10 km zone around the Plant.
- xvii. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.
- xviii. Location of Railway siding with its handling capacity and safety measures should be indicated.
- xix. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
- xx. 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 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.
- xxi. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
- xxii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the Project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- xxiii. 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.
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- xxv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- xxvi. A study shall be got done to ascertain the impact of the Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other

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protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.

- xxvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- xxviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] 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. 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- xxix. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.
- xxx. Similarly, for coastal Projects. A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the unit w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- xxxi. 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 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.
- xxxii. 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 unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- xxxiii. Air quality modeling 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

modeling 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 wind roses showing pre-dominant wind direction may also be indicated on the map.

- xxxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
 - xxxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished. .
 - xxxvi. 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.
 - xxxvii. 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.
 - xxxviii. 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 brought out.
 - xxxix. 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. 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 the pollution.
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- xl. 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.
 - xli. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
 - xl.ii. 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 should be be detailed.
 - xl.iii. 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.
 - xl. iv. 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.
 - xl. v. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

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64

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- xlvi. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
- xlvii. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- xlvi. A brief background of the Project, its financial position, Group Companies and legal issues etc should be provided with past and current important litigations if any.
- xlix. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.

I. Besides the above, the below mentioned general points are also to be followed :-

- a. Executive Summary of the EIA/EMP Report.
 - b. All documents to be properly referenced with index and continuous page numbering.
 - c. Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d. 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.
 - e. Where the documents provided are in a language other than English, an English translation should be provided.
 - f. The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g. While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF & CC 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.
 - h. 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
 - i. 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.
 - j. 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.
- ii. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the



public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

- lii. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA II (M) , dated 12.01.2017.

Sd/-

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand

Memo No : EC/SEIAA/2018-19/2568/2018/ 131

Dated: 18/06/2022

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.
2. Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand