

**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
NON-COAL MINING SECTOR**

SUMMARY RECORD OF 46th MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 46th meeting of the Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 15th to 17th February, 2022 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC, discussion on each of the Agenda Items was taken up ad-seriatim.

(1.0) Deliberation & Circulation on the Minutes of the 45th EAC Meeting (Non- Coal Mining) held on 24th, 25th and 27th January, 2022.

The minutes of 45th EAC Meeting (Non-Coal Mining) held on 24th, 25th and 27th January, 2022 were placed before the members of the Committee. The Member Secretary informed the Committee regarding the following corrigendum:

S. No	As per 45 th EAC (Non-Coal Mining) Meeting held during 24 th , 25 th and 27 th January, 2022	Typographical error	EAC recommended during 46 th EAC (Non-Coal Mining) Meeting held during 15 th to 17 th February, 2022
1	Agenda 3.4, Pg. No: 76, Para 2, Line 2	M/s Nemani Ramakrishna has made an online application vide proposal no. IA/HR/MIN/197727/2021 dated 01.01.2022 along with Form 2 and EIA Report under the provisions of EIA Notification, 2006.	M/s Nemani Ramakrishna has made an online application vide proposal no. IA/OR/MIN/191282/2021 dated 01.01.2022 along with Form 2 and EIA Report under the provisions of EIA Notification, 2006.

Day 1: 15th February, 2022 (Tuesday)

1.1 Proposal for Environmental Clearance for Boricha Limestone Mine with the production capacity of 7,00,000 TPA (ROM) in the mine lease area of 101.17ha located at Survey No.22/P near village Boricha, Taluka and District Porbandar, State Gujarat by M/s Saurashtra Chemicals Division of Nirma Limited [File. No: J-11015/67/2015-IA-II(M); Proposal No: IA/GJ/MIN/251176/2019] – Environmental Clearance

EAC Meeting Details:

EAC meeting	46 th
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Date of Meeting	15 th to 17 th February, 2022
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2. Project details:

Name of the Proposal	Boricha Limestone Mine with the production capacity of 7,00,000 TPA (ROM) in the mine lease area of 101.17 ha	
Location	Village	Boricha
	Tehsil/Taluka	Porbandar
	District	Porbandar
	State / UT	Gujarat
	Latitudes	21°44'32.5188"N to 21°44'33.8615"N
	Longitudes	69°40'46.8505"E to 69°40'47.7705"E
	SoI Topo sheet No.	41G/09 & 10 (Restricted)
Company's Name	M/s Saurashtra Chemicals Division of Nirma Ltd	
Authorization	M/s Saurashtra Chemicals Division of Nirma Ltd submitted the authorization letter dated 12.02.2018 in the name of Sh. Ashish Desai.	
Accredited Consultant and certificate no.	Mantec Consultants Pvt. Ltd. NABET/EIA/2023/RA0205	
KML file	Submitted	
Seismic zone	Zone- III as per IS 1893:2002	

3. Category details:

Category of the project	Category "A", Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14 th September 2006 and subsequent amendments
Mining lease Area	101.17 Ha.
Barda Wildlife Sanctuary	Barda Wildlife Sanctuary (BWLS) is adjacent to said mine. It is established that around 36.2102 Ha of the eastern part of the lease area falls into the one km radius from the BWLS and 50m offset from 1-Km line as per TOR clause (i) This zone is considered as non-mining zone.

4. ToR Details:

ToR Proposal No.	IA/GJ/MIN/115531/2019
Application date for	26 th August, 2019
Documents Submitted	Form-1, PFR, KML File
EAC meetings	21 st October, 2019 & reconsidered on 23 rd June, 2020
ToR Letter No.	J-11015/67/2015-IA-II (M)
ToR grant Date	14 th July 2020
Production capacity	Sized Limestone (tonnes)-80%: 5,60,000 Metric Tonnes Undersized Limestone (tonnes) - 20%: 1,40,000 Metric Tonnes
Soil	As per approved mining plan, no top soil will be

	generated.
Waste	As per approved mining plan, there will be no OB/IB.
Total excavation	7,00,000 TPA (ROM)
EIA/EMP uploaded on	14 th January 2022

5. Lease Details:

Granted Mine Lease	Area	101.17 Ha (250 acres)
	Mineral	Limestone
	Location	S. No. 22/2P of Village: Boricha, Taluka: Porbandar, District: Porbandar (earlier Junagadh)
	Order no.	MCR-1563-22089-CHH dated 27.08.1965 and MCR-1563-33800-CHH dated 10.12.1965 for captive use in Soda ash plant
	Execution date	10.07.1966 for period of 20 years
Validity of mine lease	The State Government has extended tenure of the mining lease up to 31.03.2030 vide order No. MCR/1563/22809/CHH dated 02.02.2018 and the District Collector, Porbandar has executed the lease deed on 28.01.2019 for the period up to 31.03.2030 in name of M/s Saurashtra Chemicals, Division of Nirma Limited which was registered with Registrar Porbandar on 22.02.2019.	

6. Mining plan details:

Mining Plan approved by Indian Bureau of Mines, Ajmer	Letter No.	684(4)(1)/MP-317/2020-21-GNR
	Date	2 nd March, 2021
	Validity	31 st March, 2026
	In favor of	Boricha Limestone Mine (MLA: 101.17 Ha) of M/s Saurashtra Chemicals
	Non-mining zone	Out of 101.17 Ha, 36.2102 Ha has been undertaken to be non-mining zone.
Mining Parameters	Quantitative Description	
Bench Height	3 m	
Bench Width	3 m	
Method of Mining	Open cast Semi- mechanized with drilling & blasting (Sizing within the pit will be manual)	
Individual bench slope	85°	
Overall pit slope	85°	
Drilling/Blasting	Average 188 m drilling per day & 52 holes blast per day	
RoM output size	7,00,000 TPA	
Total working days	300 days	
Life of mine	6.4 years* *The Life of mine may be increased based on reserves estimation after the completion of exploration proposal.	
Transportation details	Loading/unloading will be done by manually. Transportation of mineral to soda ash plant (viz. @ 19	

	kms from mine site) will be done through covered truck/dumper only.
Dumper's capacity	30 ton

7. Land Area Breakup:

Private land	Nil
Government land	101.17 Ha.
Total Mining lease area (MLA)	101.17 Ha.
Barda Wildlife Sanctuary	<p>Barda Wildlife sanctuary (BWLS) is adjacent to said mine. One km line from the periphery of BWLS as well as the buffer of 50m offset from the 1-Km line (w.r.t. boundary of BWLS) is projected and also marked on the Surface Plan. It is established that around 36.2102Ha of the eastern part of the lease area falls into the one km radius from the BWLS and 50m offset from 1-Km line. This zone is considered as non-mining zone.</p> <p>According to the ToR letter dated 14.07.2020, the mine lease area is located in survey no. 22/2 of village, Boricha, Taluka & Dist: Porbandar which is Govt, waste land and as per said notification, entire survey no. 22/2 (Govt, waste land) is outside the notified ESZ of BWS. So, provision of requirement of NBWL clearance is not applicable to its mining lease.</p> <p>The District Conservator of Forest (DCF), Wildlife Department, Govt, of Gujarat, Porbandar has prepared the map through BISAG, Gandhinagar showing Boricha mining lease area (101.17 ha) with respect to Barda Wildlife Sanctuary and it's notified Eco Sensitive Zone as well as 1 km periphery area from the nearest boundary of Barda Wildlife Sanctuary with real-time coordinates of 1 km line for mining & non-mining zone vide letter dated 05.11.2019. The DCF, Porbandar has provided authenticated map with real-time coordinates of 1 km area vide letter dated: 04.01.2020.</p> <p>PP has submitted an undertaking for demarcated area of 30.36 ha under 1 km from the sanctuary will be considered as non-mining zone.</p>

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Directions
Nearest Village	Boricha	1 km, SE
Nearest Highway	SH-95	3.9 km, W
Nearest Railway Station	Ranavav Railway station	7.6 km, SE
Nearest Water Bodies	Khambhala Dam	8 km, E

9. Water requirement

Total water requirement	55 KLD	Domestic water	18 KLD
		Dust Suppression	21 KLD

	Greenbelt	16 KLD
Source	Nearby villages/company's other mine	

10. Presence of Environmentally Sensitive areas in the study area

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	Barda Wildlife Sanctuary & its eco sensitive zone is adjacent to mine lease area. Certificate from DCCF & CWLW has been received regarding mine lease area does not fall in ESZ of Barda Wildlife Sanctuary on 17/06/2020.
National Park	No	
Wildlife Sanctuary	Yes	
Eco-Sensitive Zone (ESZ)	Yes	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Yes	Eurasian Spoonbill, Eurasian Sparrow hawk, Indian Peafowl, MacQueen's Bustard, Osprey, Leopard, Pangolin, Ratel, Wolf
Wildlife Conservation Plan	Yes	It has been prepared & submitted to DCF, Porbandar on 1 st October,2021. Thereafter, as per recommendation received from DCF,Porbandar vide letter dated 13 th December 2021, Wildlife Conservation Plan has been revised and submitted to DCF,Porbandar on 23 rd December 2021. At present, it is under approval.

11. Forest Clearance/Wildlife Clearance/CRZ/CGWA, if applicable - Not Applicable.

12. Status of CTE/CTO – Obtaining CTE is under process parallel to the application for EC and CTO will be obtained after grant of EC.

13. Green belt/plantation details:

Proposed area for green belt/plantation	21.50 Ha.
Budget for green plant & plantation till the end of life of mine.	Capital Cost:19.35 Lakh Recurring Cost:1.93 Lakh

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	3.92 Ha.
50 m safety zone of nallah, roads, electric lines	1.68 Ha
500 m safety zones of nearest habitation villages	-
Non-mining zone area	15.90 Ha

14. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)		
Period of baseline data collection	March'21 to May'21	
Season	Pre-Monsoon	
Air Quality Monitoring	PM ₁₀	50-78 µg/m ³
	PM _{2.5}	29-56 µg/m ³

	SO ₂	4-18 µg/m ³
	NO ₂	12-32 µg/m ³
Ground Water Monitoring	pH	7.14- 7.89
	TDS	316-497 mg/L
	Total Hardness	199-336 mg/L
	Chloride	39-104 mg/L
	Fluoride	0.27-1.41 mg/L
	Mercury	<0.001
	Lead	<0.002
	Surface Water Monitoring	pH
DO		5.4-5.6 mg/L
BOD		18-22 mg/L
COD		52-68 mg/L
Noise Monitoring	Day time	48.6- 60.4 dB
	Night time	36.8- 56.2 dB
Soil Monitoring	pH	7.26-7.66
	Nitrogen	12.6-13.9 mg/100gm
	Phosphorous	0.80-0.93 mg/100gm
	Potassium	8.83-9.45 mg/100gm
	Conductivity	146-478 micro mhos/cm
Ground Water Table	Pre-Monsoon	28 m bgl
	Post-Monsoon	23 m bgl
Mitigation measures to prevent Environmental Pollution	<ul style="list-style-type: none"> • Water sprinkling will be done on unpaved roads to avoid dust generation during transportation. • Dust mask will be provided to the workers engaged at dust generation points like excavation and loading points. • Personal protective equipment will be provided to prevent the noise exposure. • Green belt will be developed with dense hedges around the lease boundary to avoid the noise in the vicinity. • Controlled blasting will be carried out with proper spacing and stemming so that noise can be avoided. • Ground water level will not be intersected due to proposed mining activity. • The air and water pollution control measures during construction and operation phases would ensure minimum degradation of surrounding vegetation, forest area and water bodies. • For the Schedule-I species, the recommendations of the conservation plan should be implemented by the project. 	

15. Public Hearing Details:

Advertisement for PH with date	Indian Express (English):18.11.2021 Sandesh (Gujarati):18.11.2021
Date of PH	24/12/2021
Venue	Mine Site
Chaired by	Resident Additional Collector & Additional District Magistrate, Porbandar and Regional Officer, Gujarat

	Pollution Control Board, Porbandar
Main issues raised during PH	Regarding employment generation
Budget proposed for addressing issues raised during PH	5 lacs/annum

16. Court case details:

Court Case	Regular Civil Appeal No. 1/97 in the Court of Joint District Judge (S.D.) JunagadhatPorbandar.The lease area was not under Possession of the lessee since 1986 when the renewal application for lease was rejected by the State Govt. After that this rejection order waschallenged by filling RCS no. 309/93 in Hon'ble Court of learned Civil judge (S.D.)Porbandar, who was pleased to allow the suit vide judgement & decree dated 09.09.1996for renewal of the mining lease for 20 years. The State Government preferred the appealby filling Regular Civil Appeal No. 1/97 in the Court of Joint District Judge (S.D.) JunagadhatPorbandar. In the Judgment dated 03.05.2004, the learned Joint Civil Judge confirmedthe Judgment & Decree passed by Learned Civil Judge (S.D.) in RCS No. 309/93 on09.09.1996.
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17. Rehabilitation & Resettlement:

R & R details	The project proponent submitted that R & R is not involved.
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18. Affidavit/Undertaking details:

Affidavit	<ul style="list-style-type: none"> Affidavit in compliance of Ministry's OM No.3-50/2017-IA-III dated 30th May 2018 has been submitted.
Undertaking	<ul style="list-style-type: none"> Undertaking dated 16/09/2021 is submitted that conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide letter no. J-11015/67/2015-IA-II (M) dated 14th July, 2020 have been complied with and the data submitted and information provided in the report are factually correct. Consultant submitted an undertaking that he shall be fully responsible for any mis-leading information mentioned in report of Boricha Limestone Mine.

19. Details of the EMP:

Activities	Capital cost (Lakhs)	Recurring cost (Lakhs/annum)
Environmental Training /awareness campaign	0.5	0.5
Pollution abatement-Water sprinkling	-	0.5
Green belt development	19.35	1.94
Environmental Monitoring cost	-	1.65
Corporate Environmental Responsibility		5.0
Occupational Health & Safety	0.5	1.70

20. Details of project cost and employment:

Particulars	Budget (Rs. In Crore)
Capital Cost for Environment Protection	0.19
Budget for addressing the Public Hearing issues	0.05/Annum
Total Cost for EMP	0.20
Recurring Cost for EMP	0.01/Annum
Project Cost	3.91
Employment	605persons

21. Observation and Recommendation of the Committee:

The proposal for Environmental Clearance was considered in the 46th EAC meeting held during 15th to 17th February 2022. The Committee observed that the instant mine site is in close proximity to Barda Wildlife Sanctuary which harbours many wildlife species belonging to different schedules. The Wildlife Conservation Plan is yet to approved by PCCF. The budget for wildlife conservation needs to be revised. Wildlife conservation plan should specifically address the issues that mine lease area is abating the sanctuary. After detailed discussions, the Committee **deferred** the proposal due to following shortcomings:

- 1) Since this is in close proximity to Barda Wildlife Sanctuary which harbors many species belonging to different schedules. The Wildlife Conservation Plan is yet to approved by PCCF and must include the suggestions of EAC members during the presentation. The budget of conservation plan also needs to be upwardly revised.
- 2) Point no. 3 i.e. 'The mining area shall be strictly done only in the areas where mine activities are permitted activities. The boundary of the leased area will be marked prior to start of work at the site' and point no. 4 i.e. 'Scientific mining operations accompanied by ecological restoration and regeneration of mined wastelands with eco-friendly substitutes and alternatives should be adopted.' as shown in the Wildlife Conservation Plan are not actual interventions for wildlife. They are regular safety measures which needs to be removed from the conservation plan since they have no relevance but at the same time they need to be undertaken for the different objectives and the budget can be adjusted accordingly against the other parameters.
- 3) It was observed during the presentation that the entire mining initially planned is only in the farthest of the westward side, in case the project proponent carries out mining towards east, it should be done only after the plantation of 50 m barrier is raised to the 15 feet. Undertaking regarding the same needs to be submitted by the project proponent.
- 4) The transport route is passing through the villages, the impact of transportation from the village, the risk factor and the road condition including the road width is to be properly assessed during a sizable amount of the baseline information in the village

on the air quality, noise quality be submitted with a snapshot of one week monitoring in the villages on the road. The project proponent should also explore the possibility of bypass road for transportation.

- 5) The budget does not include the amount of plantation for 21 Ha area as suggested in the conceptual plan progressively as well as suggested by EAC in the 30.36 Ha area of no-mining zone should also be included in the EMP budget.
- 6) The suggestion made by the EAC regarding the manual sizing of the mineral is also be re-looked into and mechanical sizing practice can be adopted for safety of labor.

1.2 Proposal for Amendment in Terms of Reference dated 05.02.2021 for Chettichavadi Jaghir Magnesite and Dunite Mine with the production capacity of 1.4 MTPA in the mining lease area of 449.364 ha located at Village Chettichavadi, Taluk & District Salem, State TamilNadu by M/s. Dalmia Bharat Sugar and Industries Limited – [File No: 23-227/2018-IA.III (V); Proposal No: IA/TN/MIN/254214/2022] – Amendment in ToR

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

2. Project details:

Name of the Proposal	Amendment in Terms of Reference dated 05.02.2021 for Chettichavadi Jaghir Magnesite and Dunite Mine with the production capacity of 1.4 MTPA in the mining lease area of 449.364 ha	
Location	Village	Chettichavadi Village
	Tehsil/Taluka	Salem West
	District	Salem
	State / UT	Tamil Nadu
	Latitudes	N 11°43'09.71" to N 11°44'36.233"
	Longitudes	E 78°07'23.268" and E 78°09'13.068"
	Soil Topo sheet No.	58 I/2
Company's Name	M/s. Dalmia Bharat Sugar and Industries Ltd.	
Accredited Consultant and certificate no.	M/s. Aadhi Boomi Mining & Enviro Tech (P) Ltd, Salem NABET/EIA/1821/RA 0103	
KML file	Submitted	
Seismic zone	Zone-III	

3. Category details:

Category of the project	Category "A", Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14 th September 2006 and subsequent amendments

Mining lease Area	449.364 ha
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4. Details of Terms of Reference:

Date of application	Proposal No	Details	Date of accord
19.03.2018	IA/TN/MIN/73566/2018	Chettichavadi Jaghir Magnesite & Dunite Mines for total excavation of 1.4 MTPA over an area of 449.364 ha located at Village Chettichavadi, Taluk & District Salem, Tamil Nadu of M/s. Dalmia Bharat Sugar and Industries Limited	05.02.2021
Production Capacity	Magnesite: 61,000 Ts / year, Dunite: 1,40,000Ts/ year.		
Soil	NIL		
Waste	11,99,000 TS		
Total Excavation	14,00,000 TS		
Reason for amendment	The project proponent could not comply with the specific condition (xviii) of ToR dated 05.02.2021 i.e. Valid mine lease documents from the State Department of mines be submitted with EC application, EAC in its 43 rd meeting held on 15.12.2021 suggested the project proponent to seek for amendment of ToR.		

5. Lease Details:

Grant of initial mine lease for Magnesite mineral	The mining lease for Magnesite over an extent of 574.46 ha. In S.F.No.6 (un assessed dry waste land belonging to Govt. of Tamil Nadu) of Chettichavadi village, Salem Taluk & Dist. was sanctioned over a period of 20 years by G.O.Ms. No.903 Industries, Labour and Co-operation Department dated 25-2-1966.
Grant of mine lease for Dunite mineral	By G.O.MS.No.801, 26th June 1976 another Mining Lease was granted over the same area of 574.46 ha land for mining of Dunite for a period of 10 years.
1 st Renewal of mine lease	By G.O.Ms.No.74 Industries Department dated 11th March, 1997 the Govt. of Tamil Nadu sanctioned the grant of first renewal of mining lease for Magnesite and Dunite over an extent of 531.98 hectares (to make them co-terminus) in S.F.No.6 of Chettichavadi village, Salem Taluk and District for a period of 20 years w.e.f. 20.8.1986 to 19.8.2006.
2 nd Renewal of mine lease	Application for second mining lease renewal was made on July 11, 2005 vide letter No. SL: GO: 55200(1). During the period 19.08.2006 to 11th January 2015 the mines were under deemed extension in view of Rule 24 (A) (6) of MCR 1960 read with order of injunction passed in MP No.1 of 2006 in W.P.Nos. 25518 and 25519 of 2006 of the Hon'ble High Court of Madras. Presently, according to project proponent lease has been extended up to

	the period ending on 31 st March 2030 in terms of Mines and Minerals (Development & regulation) Amendment Act 2015. Project Proponent from time to time vide its various letters including letter dated 17 th Feb 2021 and letter dated letter dated 25 th Sept 2021 had requested State Mining Dept. to issue valid mining lease documents. State Mining Dept. has not responded to the same. In this connection W. A. No. 834 & 835 are pending before Madras High Court.
Application for the Mining lease area and Date	Area: 449.364 Ha Date: 11-07-2005.
Validity of mine lease	31.03.2030 as per Sec 8(A)(5) of MMDR(Amendment) Act-2015.

6. Mining plan details:

Mining Plan(approved by Indian Bureau of Mines/DMG)	Letter No.	TN/SLM/ MG& DU/ ROMP-1646-MDS.
	Date	30.03.2021
	Validity	2021-22 to 2025-26 (till 31.03.2026)
Mining Parameters	Quantitative Description	
Bench Height	7.5 m Permitted	
Bench Width	15 TO 25 M	
Method of Mining	Open Cast Semi Mechanized Mining (Other than Fully Mechanized Mines).	
Individual bench slope	60° from Horizontal.	
Overall pit slope	45°	
Drilling/Blasting	Deep Hole Drilling 100-104 mm Dia& Small Dia 25 mm Dia Holes.	
RoM output size	14,00,000Tonnes.	
Life of mine	100 Years	
Transportation details	ROM by Dumpers & Mineral by 10 Tonners.	
Dumpers capacity	Dumpers 40 ts Capacity.	

7. Land Area Breakup:

Private land	-
Government land	Unassisted dry waste land belonging to Government
Total Mining lease area (MLA)	449.364 H.a

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

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	Tamil Nadu Forest Dept C.NO.2378/2021.D1 dt.04.10.2021
National park	No	
Wildlife Sanctuary	No	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	No	Tamil Nadu Forest Department C.NO.598/2021 dated 24.09.2021.

9. Green belt/plantation details:

Proposed area for green belt/plantation	6 Ha
Budget for green plant& plantation till the end of life of mine.	Rs.13,50,000/-
Budget for nursery	Rs.4,00,000 per Annum

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	60 Ha
50 m safety zone of nallah, roads, electric lines	9 Ha
500 m safety zones of nearest habitation villages	10 Ha

10. Court case details:

Court Case	Yes, 9 court cases are pending.
Details	<ol style="list-style-type: none"> 1. W.P.25518/2006 Madras HC 2. Writ Petition No.29275 of 2016 Madras HC. 3. Writ Petition (Civil) No. 114 of 2014 of Supreme Court 4. District Collector, Salem has also raised another demand vide order dated 8th July, 2020 directing project proponent to pay sum of INR 7.24 Crore on the quantity of Magnesite mined without EC for the period 1st April, 2000 to 31st August, 2018. 5. District Collector's demand of surface compensation of Rs.79,88,39,062 from 20.08.19 66 till 31.10.2017. 6. Show cause vide Proceeding Letter No.SLM0006/DEE/TNPCCB/S LM/RL/2014, dated 03.06.2014 by Tamil Nadu State Pollution Control Board U/s 19 of Environment Protection Act. 7. Show Cause vide Proceeding Letter No.FEF/TNPCCB/SLM/F/006 /20 by Tamil Nadu State Pollution Control Board U/s 19 of Environment Protection Act dated 4th May, 2020. 8. Show cause Notice dated 5thFebruary, 2013 under Water Act. Show cause Notice dated 5thFebruary, 2013 under Air Act. 9. Environmental Activist Mr.S.Sakthivel filed a petition before the Hon'ble NGT (SZ) raising certain Environmental issues against 6 respondents.

11. Affidavit/Undertaking details:

Affidavit	The project proponent submitted the Affidavit dated 21.10.2019 in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores is submitted to MoEF&CC.
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12. Details of the EMP:

S.	Description	Budget
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No		
1	Safety kits for 320 persons @ Rs 1000 per head	Rs. 3,20,000
2	Water Sprinkling & Spraying	Rs.15,00,000
3	Afforestation for @ 75 per tree	Rs. 2,00,000
4	Noise & Vibration	Rs. 1,00,000
5	Drainage- Parapet -Retention Wall	Rs. 5,00,000
Total		Rs 26.2 Lakhs

13. Details of project cost and employment:

Particulars	Details (Rs. In Crore)
Capital Cost for Environment Protection	Rs.2.49
Budget for addressing the Public Hearing issues	Rs.0.39
Total Cost for EMP	Rs. 26 Lakhs/annum
Recurring Cost for EMP	Rs.0.2 Lakhs/annum.
Project Cost	Rs.19.57
Employment	300 Nos

14. Observation and Recommendation of the Committee:

The proposal for Amendment in Terms of Reference was considered in the 46th EAC meeting held during 15th to 17th February 2022. For this particular case an official of Department of Geology and Mining, Tamil Nadu was invited. It was mentioned that the mine lease was in operation since 1967 till 2019 without obtaining the Environmental Clearance. Therefore, it is a case of violation. The official of DMG, Tamil Nadu also submitted that currently as per the documents, this mine lease is not valid and does not come under deemed extension of mine lease validity as the project proponent is not fulfilling the required conditions. It is also noted that there are many court cases currently in progress between the project proponent and the State of Tamil Nadu. The Committee was of the opinion to wait for the clear-cut decision of the Hon'ble court in the matter before considering the request of amendment of removal of specific condition (xviii) of ToR letter dated 05.02.2021 i.e. Valid mine lease documents from the State Department of mines needs to be submitted with EC application. After detailed discussions, the committee **return** the proposal.

1.3 Proposal for Amendment in Terms of Reference dated 16.12.2021 of Kannur (Wadi area) Limestone Block (auction block) with production capacity of Limestone 12MTPA & 0.581 MTPA of waste including top soil with two nos. of crushers of 2000 TPH having mining lease area of 550 Ha located at Villages Ingalgi, Basaveshwaranagara, Halkatta, and Kundanoor, Taluka Chittapur, District Kalaburagi, Karnataka by M/s ACC Limited [File. No: IA-J-11015/76/2021-IA-II (NCM); Proposal No: IA/KA/MIN/252066/2022] - Amendment in ToR

EAC Meeting Details:

EAC meeting	46 th
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Date of Meeting	15 th to 17 th February, 2022
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2. Project details:

Name of the Proposal	"Kannur (Wadi area) Limestone Block (auction block) having lease area of 550 Ha by ACC Ltd.	
Location	Village	Ingalgi, Basaveshwaranagara, Halkatta, and Kundanoor
	Tehsil/Taluka	Chitapur
	District	Kalaburagi
	State / UT	Karnataka
	Latitudes	17°01'32.70 N to 17°02'49.00 N
	Longitudes	76°56'40.00 E to 76°57'59.50 E
	SoI Topo sheet No.	56 C/16
Company's Name	M/s. ACC Limited	
Authorization	M/s ACC Limited submitted the authorization letter in the name of Sh. Shanti Ranjan Turkey	
Accredited Consultant and certificate no.	Perfect Enviro Solutions Pvt Ltd. (NABET/EIA/1922/RA 0184)	
KML file	Submitted	
Seismic zone	II	

3. Category details:

Category of the project	Category "A", Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14 th September 2006 and subsequent amendments
Mining lease Area	550 Ha

4. Details of Terms of Reference:

Date of application	Proposal No	Details	Date of accord
29.10.2021	IA/KA/MIN/236358/2021	Kannur (Wadi area) Limestone Block (auction block) with production capacity of Limestone 12 MTPA & 0.581 MTPA of waste including top soil with two nos. of crushers of 2000 TPH having mining lease area of 550 Ha located at Villages Ingalgi, Basaveshwaranagara, Halkatta, and Kundanoor, Taluka Chittapur, District Kalaburagi, Karnataka of M/s ACC Limited	16.12.2021
Production Capacity	12.0 MTPA Limestone		
Soil	0.058 MTPA Soil		
Waste	0.523 MTPA Waste		
Total Excavation	12.581 MTPA		
Crusher	It is proposed to install two crushers of capacity 2000 TPH each within the mining lease area. The distance between both the crushers is approx. 1 km.		

Reason for amendment	Amendment required in Specific Conditions 2, 8, 11 and 12.
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Submissions by the project proponent for amendment in specific conditions 2, 8, 11 and 12:

Specific condition 2: No road transportation will be allowed from one mine to another mine. Conveyer belt and crusher should be simultaneously commissioned along with the mine operation.

Submission: ACC got the lease under auction after paying a huge premium (Rs. 78,59,64,625/-). It will further invest crores in land procurement and other various clearances.

Proposed initial 3 years of production details are mentioned below:

Year	Limestone in Tons	Total Waste including topsoil in Tons
Year 1	Nil (Development)	477440
Year 2	4009200	405760
Year 3	6990880	581120

The production in 2nd year is only 30% and in 3rd year only 58% of the total annual production envisaged from the mine i.e. 12MTA.

ACC wish to submit that as per subsection 7 of Section 8 of MMDR Amendment Act 2021, we may sell up to 50% mineral of annual production. In view of this leverage in the act, 100% material will not be taken through conveyor belt in time to come.

It is requested that road transport from this auction lease to the existing crusher in our old lease which is hardly 1.5 km away is granted for about initial 3 years on following condition, which we will observe —

- Road transportation from our mine to the existing crusher will take place through the land owned by ACC
- No other public vehicle except our tippers will be allowed to pass from the road
- Whenever we will cross public road in that case we will take all safety measures including creating a bypass through underpass/overbridge, if required
- Fixed water sprinkler will be installed along the road
- Paved road will be developed in order to minimize dust generation.
- We will submit the undertaking that road transportation will be done only in the initial three years of mining.

Note: ACC have already purchased more than 75% of the land falling between our two leases for exclusive road transportation during first three years of mining.

- It may also be noted that we will have to start “Production and Dispatch” within two years of execution of lease, otherwise the lease will lapse as per MMDR Act 2021. It is not possible to erect crusher and belt conveyor within a limited 2 yr period after lease execution and if lease lapses due to this reason then our whole huge investment may go in vain and may lead to impact on the existing cement plant which may result in loss of employment and revenue.

Specific condition 8:The Project proponent shall incorporate a detailed study on total mineral available and plan for plantation at the backfilled areas be properly delineated in the EIA/EMP report.

Specific condition 11: The detailed study of mineral available must be properly incorporated in the EIA/EMP report.

Submission:

- The lease was granted through auction; therefore, the reserves have been calculated based on the exploration data provide with auction documents. Further detailed exploration is required to arrive at finer details related to the mineral availability and can only be taken-up after the execution of the lease deed.
- A detailed exploration will be carried out as per IBM guidelines and based on the result detailed study on total mineral available is possible.
- After detailed exploration only, ACC can access the actual quantity of reserve and depth of mining for winning all mineral in points of mineral conservation. After exploitation of all mineral backfilling will be done and it will be covered by plantation. However, a tentative conceptual plan and area to be afforested will be given in the EIA report based on available exploration data.
- ACC will give undertaking/affidavit to submit the detailed study of mineral available after grant of environment clearance, and execution of lease deed followed by detailed exploration.

Specific condition 12:Mining should be planned in such a way that the pits opened should be exhausted completely before opening the new pit.

Submission:The condition will be hampering the production for following reasons:

- It will not possible to mine the mineral required to feed both crushers from 1 or 2 pits in view of huge production (12 MTPA) planned.
- It will also not possible to meet the desired quality and blending which will have impact on the mine life and mineral conservation

Operating 2 to 3 pits will help in achieving the following environmental benefits:

- Less movement of vehicles due to the reduction in lead distance, thus leading to lower transport emissions i.e., CO₂ and other associated emissions
- Flexibility with respect to fuel mix i.e., using of low-quality Indian coal
- Less noise due to scattered working zones.
- Conserving high quality limestone by blending. This will also help in increasing mine life.

ACC will strictly follow the approved mining plan by IBM. ACC will try not to open more than 2 to 3 pits at time, which will be necessary to meet the quantitative and qualitative requirement. Next pit will be opened only after one of these 2 to 3 pits are completed.

5. Lease Details:

Letter of Intent	Letter No.	DMG/MLS/KW/2 nd attempt auction/2020-21
	Date	04.01.2021
	Issued by	Government of Karnataka
Validity of mine lease	50 years w.e.f. date of execution	
Application for the Mining lease area	<p>Applied Mining Lease area:- 550 ha.</p> <ul style="list-style-type: none"> • This is an Auction block for which Government of Karnataka, Notice Inviting Tender dated 05.10.2020 • e-auction conducted on 19.12.2020 • ACC Limited was awarded, Letter of Intent vide letter no: DMG/MLS/KW/2nd attempt auction/2020-21 dated: 04.01.2021 	

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines)	Letter No.	279/1108/2021/BNG
	Date	05.08.2021
	Validity	2021-22 to 2025-26
Mining Parameters	Quantitative Description	
Bench Height	8 to 10 (working bench)	
Bench Width	20 (working bench)	
Method of Mining	Open cast mining with drilling & blasting	
Geological Reserves	279.99 MillionTonnes	
Mineable Reserves	12 Million TPA	
Individual bench slope	80 to 85 deg	
Overall pit slope	less than 45 deg	
Drilling/Blasting	Fully Mechanized open cast using HEMM and deephole blasting.	
RoM output size	-75 mm	
Life of mine	30 Years (Note: The life of Mine will be changed after detailed exploration)	
Transportation details	In the initial years of mining operation, the ROM will be transported to the existing crusher located in another lease of ACC at about 5 km (byroad). After construction of conveyer belt, the mineral after crushing will be transported through a conveyor belt to the Wadi Cement Works located at about 3.6 Km in NE direction, for manufacturing of cement.	
Dumper's capacity	100 tons	

7. Land Area Breakup:

Private land	533.65 ha
Government land	16.35 ha
Total Mining lease area (MLA)	550 ha

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

Forest Area/Environmental Sensitivity Zone	Land/Protected	Yes/No	Details of Certificate/letter/Remarks	of
Forest Land		No	NA	
National Park		No		
Wildlife Sanctuary		No		

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Yes	Three schedule-I species are reported from the buffer area for which conservation plan is under preparation.

9. Green belt/plantation details:

Proposed area for green belt/plantation	The development of green belt will be done in an area of 10 ha in the safety zone of 7.50 m width along the lease periphery in the first three years of mining as per ToR specific condition 5. In addition, 71.2 ha of 50 m barrier along village road and nallah will be covered by plantation. Besides, at the end of the conceptual period 60.28 ha backfilled area will be reclaimed by plantation.
Budget for green plant & plantation till the end of life of mine.	Rs 3.50 Crores (Tentative cost)
Budget for nursery	Will be procured from Forest nursery

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	10 ha
50 m safety zone of nallah, roads, electric lines	71.2 ha will be afforested on the 50 m safety zone along nallah and village road

10. Court case details:

Court Case	No litigation is pending against the project
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11. Rehabilitation & Resettlement:

R & R details	There is no habitation in the mine lease area. However, the land falls under revenue jurisdiction of four nos. of villages. The Land acquisition and R&R activity, if required, will be in line with the Right to Fair compensation and transparency in Land Acquisition, Rehabilitation and Resettlement (Karnataka Amendment) Act, 2019 along with the principal act "Right to Fair compensation and transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013".
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12. Affidavit/Undertaking details:

Affidavit	Affidavit in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores is submitted to MoEF&CC.
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13. Details of project cost and employment:

Particulars	Details
Project Cost	Rs 471 Crores
Employment	97 persons

14. Observation and Recommendation of the Committee:

The proposal for Amendment in Terms of Reference was considered in the 46th EAC meeting held during 15th to 17th February 2022. During the presentation, the project proponent informed that public hearing for the instant proposal has not been conducted yet. The Committee felt that the project proponent can fulfil the specific conditions 2, 8, 11 and 12 and can explore the possibilities of complying the same for the appraisal of the proposal for Environmental Clearance. Therefore, the Committee did not accept the request of amendment in Terms of Reference dated 16.12.2021 and **returned the proposal in the present form**. The Committee also directed the project proponent to submit the land use plan and yearly production figures separately during the appraisal of proposal for Environmental Clearance.

1.4 Proposal for Terms of Reference for Humdara - Ghodepaiwadi block of Bauxite Mine with the production capacity of 0.3 MTPA in the mine lease area of 120.48 ha located at Hamdara-Ghodepaiwadi, Sagave Village, Rajapur Tehsil, Ratnagiri District, Maharashtra by Gamma Iron India Ltd. – [File. No: IA-J-11015/106/2021-IA-II(NCM); Proposal No: IA/MH/MIN/240932/2021] –Reconsideration for ToR

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

2. Project details:

Name of the Proposal	Humdara-Ghodepaiwadi block of Bauxite Mine with the production capacity of 0.3 MTPA in the mining lease area of 120.48 ha	
Location	Village	Hamdara- Ghodepaiwadi
	Tehsil	Rajapur
	District	Ratnagiri
	State / UT	Maharashtra
	Latitudes	16° 31'5.704" to 16° 31'38.06" N
	Longitudes	73° 23' 11.61" to 73° 24' 23.50" E

	SoI Toposheet No.	47 H/6
Company's Name	M/s Gamma Iron India Ltd.	
Accredited Consultant and certificate no.	Mineral Engineering Services NABET/EIA/1922/RA0158	
KML file	Submitted	
Seismic zone	II	

3. Category details:

Category of the project	Category "A", Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14th September 2006 and subsequent amendment
Mining lease Area	120.48 ha

4. ToR Details:

ToR Proposal No.	IA/MH/MIN/240932/2021
Online application date for Form-I	26.11.2021
Documents Submitted	Form-I and Pre-Feasibility Report
Production capacity	0.3 MTPA of Bauxite
Waste	10,80,648 tonnes
Earlier EAC Meeting	43 rd EAC meeting held during 14 th to 16 th December, 2021 wherein the proposal was deferred.

5. Lease Details:

Letter of Intent	In favor of	M/s. Gamma Iron India Ltd., Sindhudurg, has been declared as 'Preferred Bidder' in the e-auction process conducted by the Govt. of Maharashtra under Rule 9 (4) (b) (iii) of auction Rules
	Letter No.	MMN-0719/C.R.42(Part-4)/IND-9
	Date	13.09.2019
	Area	120.48 Ha
Validity of LOI	50 years from 13.09.2019	

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	MP/MECH-02(MAH)/GOA/2021-22
	Date	02.08.2021
	Validity	-
Mining Parameters	Quantitative Description	
Bench Height	5 m	
Bench Width	10 m	
Method of Mining	Opencast mechanized mining method	
Operational plan	The main operation shall include removal of ore and waste by ripper/excavator and loaders subjected to dry crushing and screening. The rejection encountered will be used for backfilling the	

	exhausted part of the mining lease.
Overall pit slope	45°
Drilling/Blasting	Deephole drilling and blasting will be adopted in hard zone
Life of mine	8 years @ 0.3 Million Tonnes per (max) Annum
Transportation details	Trucks and Dumpers
Dumpers capacity	Trucks: 16 tonnes Dumpers: 25 tonnes

7. Land Area Breakup:

Private land	120.48 ha
Government land	-
Total Mining lease area	120.48 ha

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Directions
Nearest Village	palye village	6km
Nearest Town	Rajapur Town	30 Km
Nearest Railway station	Rajapur Road Railway station	42 km
Nearest Airport	SindhurgaChipi Airport	84 Km
Nearest highway	NH-17	17 km(by road)
Nearest water bodies	River Kavdoli	8 km
	Vaghotan river	500 m
	pariyanala	2.8km
	Kavdoli river	8 km
Arabian Sea		7.7 km
Western Ghats		6km

9. Water requirement:

Total water requirement	80 KLD	Dust suppression	70 KLD
		Afforestation	8 KLD
		Domestic	2 KLD
Source	Total monsoon water will be allowed to collect in the proposed pit and same will be pumped out and used for mining operations such as dust suppression and well water from nearby village shall be used for drinking and domestic purpose.		

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

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	-
National park	No	
Wildlife Sanctuary	No	

Western Ghats	Yes, 6 km away from the mine lease area
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11. Green belt/plantation details:

Period	Area	Proposed plantation	Location	Name of species
1st 5 years Block Period	3.32	3320	0.42 Ha. of 7.5 m safety zone and 2.90 Ha. of Backfilled area	Species like Gulmohar, Cashew, Coconut, Mango, Jackfruit, etc.,
2nd 5 Years Block Period	Proposals shall be given after completion of exploration			
3rd 5 years Upto conceptual /lease period				

12. Court case details:

Court Case	No litigation is pending against the project
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13. Affidavit/Undertaking details:

Affidavit on a Non-Judicial stamp paper of Rs. 100 dated 14.01.2022	The company hereby undertake by affidavit that it will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
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14. ADS Details: The proposal for Terms of Reference was earlier considered in the 43rd EAC meeting held during 14th to 16th December, 2021. ADS was raised on 24.12.2021 and the project proponent replied on 18.01.2022 which is as follows:

ADS Point 1: The project proponent needs to submit a clear-cut map showing exact distance of the mine lease area from the Western Ghats duly authenticated by the concerned authorities.

Reply: A clear-cut map showing the exact distance of the mine lease area from nearest ESA village i.e., Paliye which is 1.271 Kms. The proposed mining block of Hamdara – Ghodepaiwadi falling in Sagave village as per DGPS survey and Cadastral map duly authenticated by the Deputy Director of Directorate of Geology & Mining, Dept of Industries, Govt of Maharashtra. Based on this, Palye village is marked in map (submitted with the ADS reply) showing clearly the distance from the nearest ESA village i.e., Palye of Western Ghats as given in the draft notification issued vide SO.No. 5135 (E) dated 03.10.2018. List of ESA villages are given in the above referenced notification and the “Sagve” village does not form part of ESA villages of Western Ghats and hence there need not be any restriction for conducting mining operations in Sagave village of Rajapur taluk of Ratnagiri District of Maharashtra as per the provisions of draft notification.

ADS Point 2: The project proponent needs to clearly demarcate the presence of mangroves and mango trees around the mine lease area on KML.

Reply: The presence of Mangroves, Mango and Cashew plantation are clearly shown in the submitted KML File. The KML file also demarcates the boundary limits of mangroves, marked by Maharashtra Coastal Zone Management Authority (MCZA).

ADS Point 3: The project proponent needs to submit a detailed breakup of the current land use and the conceptual plan of the land use.

Reply: Detailed breakup of current land use and conceptual land use plan with extent of land use is shown below:

Current Land use Pattern for Core Zone Area			
Sl. No	Type	Area in Ha	%
1	Residential Area	6.45	5.35
2	991 m* 6 m Road	0.59	0.49
3	992 m * 3.5 m Road	0.35	0.29
4	Mango/Cashew plantation	12.56	10.42
5	Un-used Area	100.53	83.44
Total		120.48	100.00

Conceptual Land use Pattern			
Sl. No	Type	Area in Ha	%
1	Mining Area for Block period	2.75	2.28
2	7.5 Buffer Area	4.47	3.71
3	Mining for Conceptual period	6.29	5.22
4	991 m* 6 m Road	0.59	0.49
5	992 m * 3.5 m Road	0.35	0.29
6	50 mt safety barrier for Roads & Electrical Lines	36.90	30.63
7	Mango/Cashew plantation	12.56	10.42
8	Ultimate pit Limit	21.49	17.84
9	Waste Stack	0.80	0.67
10	Residential Area	6.45	5.35
11	Un-used Area	27.83	23.10
Total		120.48	100.00

ADS Point 4: The project proponent needs to submit a letter showing the clear CRZ demarcation from the high flood plain.

Reply: Plan showing clear CRZ demarcation from the High Flood Plain (HFL) issued by Water Resources Department map showing HFL of Vaghotan river in village Sagave ,Rajapur taluk, Ratnagiri (Dist), Maharashtra is submitted . Also, CRZ line is marked by MCZMP of Maharashtra which is submitted and which also shows the distance of proposed mining lease from the nearest ESA village of Western Ghats notification , 2018 i.e., Palye village.

ADS Point 5: The project proponent needs to submit the details of total excavation separately. Also, the project proponent needs to mention the life of mine.

Reply: Total excavation as per the approved mining plan by Indian Bureau of Mines is as follows:-

Development: 10, 80,648 tonnes (During the five year plan period)

Production: 5, 00,000 tonnes (During the five year plan period)

Life of mine: 8 years (As per the estimated minable mineral reserves of 13, 79,816 tonnes)

Note: During the operation of mine further exploration shall be undertaken by lessee and hence life of mine might increase.

It is planned to reach production level of 300,000 tonnes/ annum of bauxite during the 1st plan period of 5 years.

The development includes top soil, laterite waste, laterite of < 30% AL₂O₃. The maximum quantity of waste handling will be 4, 26,978 tonnes/ annum.

ADS Point 6:The project proponent needs to submit the details of mining parameters such as bench height, bench width, slope etc.

Reply: Mining parameters are as follows:

(a) Bench height: 5m (Max)

(b) Bench width: 10m (Min)

(c) Pit slope: 450

ADS Point 7: The project proponent needs to submit all the annexures of Pre-feasibility report along with the copy of approved mining plan and valid mine lease documents.

Reply: All the documents have been submitted by the project proponent.

ADS Point 8:The project proponent needs to submit an affidavit in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores is submitted to MoEF&CC.

Reply: The affidavit has been submitted by the project proponent.

15. Details of project cost and employment:

Particulars	Details
Total Cost for EMP	Rs. 75.92 Lakhs
Project Cost	Rs. 2.6 Crore
Employment	60 persons

14. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC meeting held during 15th to 17th February 2022. Based on the deliberations made by the project proponent and the consultant, the Committee noted that earlier the proposal was considered in the 43rd EAC meeting held during 14th to 16th December, 2021 wherein additional details were sought on 24.12.2021 and the project proponent replied on 18.01.2022. The Committee felt that the reply of ADS point no. 1 i.e. 'The project proponent needs to submit a clear-cut map showing exact distance of the mine lease area

from the Western Ghats duly authenticated by the concerned authorities' is not satisfactory and since the instant mine lease is in close vicinity of the ESA of Western Ghats, more clarity is required for the appraisal of this proposal. Therefore, the Committee **deferred** the proposal and directed the project proponent to submit a letter from the State Authority stating that the project site is not falling under ESA of Western Ghats.

1.5 Proposal for Amendment in Environmental Clearance of Dhobil Iron Ore Mining Project (Production capacity of 0.75 MTPA ROM) in the mine lease area of 513.036 Ha of M/s SAIL - Bokaro Steel Plant for continuation of iron ore transportation through road for another 5 years w.e.f. 23.01.2022 located in Village Dhobil, Tehsil Manoharpur, District West Singhbhum, State Jharkhand – [File. No: J-11015/251/2009-IA.II(M), Proposal No: IA/JH/MIN/242657/2021] - Amendment in EC

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

2. Project details:

Name of the Proposal	Proposal for Amendment in Environmental Clearance for continuation of iron ore transportation through road for another 5 years w.e.f. 23.01.2022 for Dhobil Iron Ore Mining Project in the mine lease area of 513.036 ha	
Location	Village	Dhobil
	Tehsil	Manoharpur
	District	West Singhbhum
	State / UT	Jharkhand
	Latitudes	22°14'54.74412"N to 22°16'18.36657"N
	Longitudes	85°16'05.56467"E to 85°17'59.31049"E
	SolTopo sheet No.	F45H7
Company's Name	Bokaro Steel Plant of Steel Authority of India Ltd. (SAIL)	
Accredited Consultant and certificate no.	MECON Limited NABET/EIA/2023/RA0195	
KML file	Submitted	
Seismic Zone	II	

3. Category details:

Category of the project	Category "A", Project or Activity 1(a) – 3 for Mining of Mineral and 2(b) Mineral beneficiation
Provisions	EIA Notification dated 14 th September 2006
Mining lease Area	513.036 ha

4. Previous EC Details:

EC Letter Details	1) EC vide letter no. J-11015/251/2009-IA.II(M) dated 24.01.2012 & Modification dated 01.05.2012 for production of 0.75 million tonnes per
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	<p>year (MTPA) of iron ore involving mine lease area of 513.036 ha and initially allowed ore transport by road for 5 years.</p> <p>2) EC Amendment vide letter no. J-11015/251/2009-IA.II(M) dated 19.04.2017 for allowing transportation of iron ore by road for further 5 years w.e.f. 23.01.2017 with a condition that the project proponent will put in place the conveyor system for transportation of iron ore within 5 years.</p>
Production Capacity	0.75 MTPA
Waste	~0.017 Mm ³ /yr as per the Plan period 2022-23 to 2026-27
Total excavation	~0.248 Mm ³ /yr as per the Plan period 2022-23 to 2026-27
Crusher	Mobile crushing & screening systems
Earlier EAC meeting	<p>1. 42nd EAC meeting held during 30th November to 3rd December, 2021 wherein the proposal was returned in the present form.</p> <p>2. 44th EAC (Non-Coal Mining) meeting held during 28th – 29th December, 2021 wherein the proposal was deferred.</p>
Reason for Amendment	Bokaro Steel Plant request for continuation of iron ore transportation through road for another 5 years beyond 23 rd January 2022 without change in EC production capacity of 0.75 MTPA.
Additional information	<p>1. Initially, Ore transportation by road was allowed for 5 years. Subsequently EC amended on 19.04.2017 allowing transportation of iron ore by road for further 5 years till 23.01.2022 with a condition that the project proponent will put in place the conveyor system for transportation of iron ore within 5 years.</p> <p>2. Apart from Dhobilmine lease, there are five more mining leases viz Ajitaburu, Budhaburu, Sukriluturburu, Ankua and Tatiburu under Manoharpur Ore Mines, Chiria. There is about 1.5 billion tonnes of iron ore reserve & resources under these leases and are the future iron ore securities of SAIL. Accordingly, SAIL has planned for development of Chiria as a large mechanised mine with 7 MTPA capacity in 1st Phase and subsequently to 15 MTPA in 2nd phase.</p> <p>3. Under the capacity expansion plan, it has been planned to have a common Crushing & Screening Plant with capacity of 7.0 MTPA in Ajitaburu ML and the associated infrastructure facilities like beneficiation, blending, stockpiling, railway sidings, tailing ponds etc., will be located in non-forest land i.e. at Patherbasa near Manoharpur, which is about 15 km away from the mines. In order to bring ore from mines to Patherbasa, evacuation of ore has been planned through Long Distance Belt Conveyor (LDBC) which will be starting from Ajitaburu and ending in Patherbasa.</p> <p>5. SAIL had consulted reputed national & international consultants and a direct route along crow-fly distance with a conveyer length of 6.314 km Rope-Con technology (recommended by M/s Hatch, Australian Consultant) has been selected for evacuation of ore from the mines. Based on the route selected, FC proposal for diversion of 14.88 ha of forest land was submitted online on 31.01.2017. Govt. of Jharkhand forwarded the proposal to MoEF&CC, GoI, Regional Office, Ranchi in 11.01.2018. The proposal was considered by Regional Expert</p>

	<p>Committee (REC) MoEFCC, Integrated Regional Office (IRO), Ranchi on 11.03.2019.</p> <p>6. MoEFCC has approved Management Plan for Sustainable Mining (MPSM) for Saranda&Chaibasa Forest Divisions on 08.06.2018. As per the approved MPSM, Chira leases are falling under Conservation Area / No Mining Zone and thus prohibits mining in entire Chiriai.e.Ankua Forest Block. However, for Dhobil lease of Chiria where Stage-II FC for already broken up area is available, mining operations (0.75 MTPA) have been allowed only within the already broken area over 29.411 ha. Presently, review of approved MPSM is under progress by MoEFCC through ICFRE, Dehradun. Grant of forest clearances under the Ankua RF including forest clearances required for Chiria mines are presently on hold by MoEFCC till reassessment of MPSM. In view of these reasons, development of Chiria mines as well as installation LDBC conveyor system for the evacuation of iron ore from mining leases of Manoharpur Iron Ore Mines could not be started.</p> <p>7. In the meantime, the prescribed time limit of 5 (five) years for ore transportation by road for Dhobil Iron Ore Mine is expiring on 23.01.2022. As explained above, the construction of LDBC can't be undertaken without grant of Stage-II FC as the same involves forest land and it is also estimated that it may take about more 5 years to develop a fully mechanized mines at Chiria including installation & commissioning of the LDBC Conveyor system for evacuation of ore.</p>
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5. Lease Details:

Initial mine lease details	Name of Lessee	Shri Amarendu Prakash
	Mineral	Iron ore (Hematite)
	Area	513.036 ha (Forest Area)
	Date	08.03.1948 to 07.03.1978
	Lease deed execution date	08.03.1948
1 st Renewal of mine lease	Date	08.03.1978 to 07.03.1998
	Lease deed execution date	06.04.1980
2 nd Renewal of mine lease	Date	08.03.1998 to 07.03.2018
	Lease deed execution date	21.04.2018
1 st Extension of mine lease	Date	08.03.2018 to 07.03.2038
	Lease deed execution date	21.04.2018
Validity of mine lease	Till 07.03.2038	

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	RAN/WSB/Fe/MP-10/2021-22
	Date	15/11/2021
	Plan period	2022-23 to 2026-27
Mining Parameters	Quantitative Description	
Bench Height	6 m	

Bench Width	10 m
Method of Mining	Mechanized Open cast mining by conventional shovel dumper combination with drilling / blasting / loading/ transportation
Overall pit slope	45 ^o
Drilling/Blasting	Yes, mechanized open cast mining with 100 mm diameter wagon drill hole drilling and blasting along with shovel – dumper combination is practiced. Blast holes are 6.5 m deep holes.
RoM output size	+10 to -40 mm
Life of mine	15 years
Transportation details	Through road up to Manoharpur Railway Siding (~31 km) and then by railway wagons to Bokaro Steel Plant (BSL)& other Steel Plants of SAIL. On completion of Conveyor System, ore transport by road will be phased out. Iron ore will be transported to railway siding by covered conveyor and then by railway wagons to BSL & Steel Plants of SAIL.
Dumpers capacity	25tonne

7. Land Area Breakup:

Private land	-
Government land	513.036 ha (Entire ML is a Reserve forest land)
Total Mining lease area	513.036 ha (Forest Clearance obtained for 29.411 Ha)

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance &Directions
Village	Dhobil	-
Town	Manoharpur	~31 km on NW
Highway	NH-143	~90 km on NW
Existing Railway Station	Manoharpur	~31 km on NW
Water Body	HamsadagarNala&Koina river	~4.5 km on N& ~3.0 km E

9. Presence of Environmentally Sensitive areas in the study area

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	Yes	Forest Clearance (Stage II) has been obtained from MoEF&CC vide letter no. 8-20/98-FC dated
National park	No	

Wildlife Sanctuary	No	21.10.1998 which is valid up to 07.03.2038 for 29.411 ha. (29.411 Ha, Reserve Forest area) - Working restricted within 29.411 ha only.
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Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Yes	The Mine is located in the Singhbhum Elephant Reserve. Schedule-I animals present in Buffer Zone are Wild Boar, Indian Elephant, Sloth Bear, Indian Mole Rat, Leopard, Wolf, Deer. No Schedule-I animals found in Core Zone.

10. Green belt/plantation details:

Proposed area for green belt/plantation	27.49 ha at the end of Mining as per the Review of Mining Plan
Budget for green plant & plantation till the end of life of mine.	Rs.1.37 Crores approx.
Budget for nursery	Nil as saplings will be purchased from State Forest Deptt.
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	27.49ha

11. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	May, 2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer, 2021
Monitoring of air quality and noise levels	With reference to ADS dated 07.01.2022, Air quality and noise levels were monitored at four locations along the ore transport road from the Dhobil Mine to Manoharpur Railway Siding for eight non-rainy days from 09.01.2022 to 20.01.2022.

12. Court case details:

Court Case	<ul style="list-style-type: none"> Common Cause Matter & Judgment of Supreme Court of India dated 02.08.2017. Status: Stay order issued by the Court for continuation of Mining Operation. JSPCB filed a case for violation of E(P) Act, 1986 for credible action Status: Matter is pending at Chief Judicial Magistrate, Chaibasa Direction under section-5 of EP Act, 1986 issued by MoEFCC on 08.3.2017 Status: Direction resolved
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13. Affidavit/Undertaking details:

Affidavit on a Non-Judicial stamp paper of Rs.20 dated 02.11.2021	The company hereby undertake by affidavit that it will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
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14. Previous EC compliance and production details:

Particulars	Letter no. and date
Certified EC compliance report	PP has submitted the certified EC compliance report obtained from Integrated Regional Office, Ranchi vide letter no. 103-356/12/EPE/4911 dated 27.09.2021 and re-certified vide File No. 103-356/12/EPE/061 dated 21.01.2022
Past production details	Certified by DMO, Chaibasa vide memo no. 1732/M dated 13.12.2019 for the period 1993-94 to 2013-14. Certified production figure issued vide letter no.1222/M dated 29.10.2021 for the period 2014-15 to 2020-21.

15. ADS details: Earlier, the proposal for Amendment in Environmental Clearance was considered in the 44th EAC (Non-Coal Mining) meeting held during 28th – 29th December, 2021. The ADS was raised on 07.01.2022. The Project Proponent submitted the reply on 28.01.2022 which is as follows:

S.No	ADS Point	Reply
01	The project proponent needs to submit the latest re-certified compliance report.	Re-certified Compliance Report issued by MOEFCC, IRO, Ranchi vide File No. 103-356/12/EPE/061 dated 21.01.2022.
02	Due diligence for further continuation of road has to be substantiated to data of noise and vibration, deposition of particles on the trees along the both side of road due to transportation and mitigation measures for the same.	Studies were conducted during January, 2022 in order to assess ground vibration & noise due to ore transport and deposition of particles on the trees along the transport route. Information w.r.t studies submitted in ADS reply.
03	Placement of continuous air quality and noise quality monitoring stations along the route and at least a week data through these monitoring stations needs to be submitted.	Air quality and noise levels were monitored at four locations along the ore transport road from the Dhobil Mine to Manoharpur Railway Siding for eight non-rainy days from 09.01.2022 to 20.01.2022. The detailed information is submitted in ADS reply.

16. Details of project cost and employment:

Particulars	Details
Recurring Cost for EMP	Rs. 0.6 Crores per year
Project Cost	Rs.26.62 Crores
Employment	709 persons

17. Observation and Recommendation of the Committee:

The proposal for Amendment in Environmental Clearance for continuation of iron ore transportation through road for another 5 years was considered in the 46th EAC meeting held during 15th to 17th February, 2022. Based on the discussion held and presentation given by the project proponent and the consultant, the Committee observed that the Environmental Clearance was obtained on 24.01.2012 & Modification dated 01.05.2012 for production of 0.75 million tonnes per year (MTPA) of iron ore involving mine lease area of 513.036 ha and initially allowed ore transport by road for 5 years. Further, amendment in EC was obtained on 19.04.2017 for allowing transportation of iron ore by road for another 5 years w.e.f. 23.01.2017 till 23.01.2022 with a condition that the project proponent will put in place the conveyor system for transportation of iron ore within 5 years. The Committee noted that project proponent has now requested for continuation of transportation through road for another 5 years w.e.f 23.01.2022 and also noted that the progress of work completion of conveyor belt is not upto the mark. Therefore, the Committee **recommended** the proposal for continuation of iron ore transportation through road for another 2 years w.e.f 23.01.2022. Further, the Committee recommended a field visit may be along with the pending visit of Kiriburu-Meghahatuburu Iron Ore Mines of Steel Authority of India Limited (SAIL) for real time appraisal on ground realities for facilitating the decision making in future. The Committee also felt that the project proponent shall submit a progress report of completion of the conveyor belt on six monthly basis.

1.6 Proposal for Environmental Clearance for Mewasa Bauxite Mine of M/s Saurashtra Calcine Bauxite and Allied Industries with total excavation of 36,000 TPA (Mineral: 34, 200 MTPA, OB/IB/Waste: 1,800 TPA) in the mine lease area of 9.66 ha in Survey No.- 138 located at Village Mewasa, Taluka Kalyanpur District DevbhumiDwarka, Gujarat – [File. No: J-11015/115/2013. IA. II(M), Proposal No: IA/GJ/MIN/18422/2013] –Environmental Clearance

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

2. Project Details:

Name of the Proposal	Mewasa Bauxite Mine with total excavation of 36,000 TPA (Mineral: 34,200 TPA, OB/IB/Waste: 1,800 TPA) in the mine lease of 9.66 ha	
Location	Village	Mewasa
	Tehsil/Taluka	Kalyanpur
	District	DevbhumiDwarka
	State / UT	Gujarat
	Latitudes	22° 13' 52.5" to 22°14'5.8" N

	Longitudes	69° 18' 51.4" to 69° 19' 2.8" E
	SoITopo sheet No.	41 F/3, 41F/4-B6, 41F/6, 7 & 41F/8
Company's Name	M/s Saurashtra Calcine Bauxite and Allied Industries	
Accredited Consultant and certificate no.	Enkay Enviro Services Pvt. Ltd., Jaipur. Certificate No. NABET/EIA/2023/RA 0183	
KML file	Submitted	
Seismic zone	IV	

3. Category details:

Category of the project	Category "B", Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14 th September 2006
Mining lease Area	9.66 ha
General condition	Marine National Park (Gulf of Kutch) Jamnagar is located at a distance of 3.340 Km towards NE from the mine site.

4. ToR/EC Details:

ToR Proposal No.	IA/GJ/MIN/18422/2013
Online application date for Form-I	17.04.2013
Documents Submitted	Compliance of Agenda; TOR point wise/EC Presentation; Form 1; Form-2; Project proponent's affidavit; Mining Lease Order; Consultant's undertaking; NABET Certificate; Approved WLCP, Approved Mining Plan; Authorized signatory Letter; KML.
Earlier EAC meeting date	10thEAC Meeting held during October 21-22, 2019 wherein the Committee deferred the proposal and referred to Ministry for investigating the proposal for its validity for consideration. Accordingly, requisite information may be sent to PP for compliance, if any, before the proposal is requested for reconsideration by the Committee.
ToR Letter No.	J-11015/115/2013-IA.II (M)
ToR grant Date	31.08.2015
Production capacity	34,200 TPA
OB/IB/Waste	1,800 TPA
Total Excavation	36,000 TPA
EIA/EMP uploaded on	01.08.2019

5. Lease Details:

Grant of ML & Area	Letter No.	MCR-1585 CHH-80550
	Date	03.09.1986
	Area	9.66 Ha.
Validity of mine lease	50 years	

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	684(4) (1)/MP-316/2020-21–GNR															
	Date	17.02.2021															
	Validity	2021 - 22 to 2025-26															
Mining Parameters	Quantitative Description																
Bench Height	1.5 – 2.0 m																
Bench Width	More than 2.0 m																
Method of Mining	Manual Opencast Mining Method																
Individual bench slope	70°																
Overall pit slope	45°																
Drilling/Blasting	<table border="1"> <tr> <td>Spacing:</td> <td>1.0m</td> </tr> <tr> <td>Burden:</td> <td>1.0m</td> </tr> <tr> <td>Depth of hole:</td> <td>2.0 m (Max)</td> </tr> <tr> <td>Powder factor:</td> <td>7T/Kg</td> </tr> <tr> <td>Explosive per hole:</td> <td>0.72 kg</td> </tr> <tr> <td>Dia. of Hole:</td> <td>32 mm</td> </tr> <tr> <td>Number of holes /day</td> <td>32 Holes</td> </tr> </table>			Spacing:	1.0m	Burden:	1.0m	Depth of hole:	2.0 m (Max)	Powder factor:	7T/Kg	Explosive per hole:	0.72 kg	Dia. of Hole:	32 mm	Number of holes /day	32 Holes
Spacing:	1.0m																
Burden:	1.0m																
Depth of hole:	2.0 m (Max)																
Powder factor:	7T/Kg																
Explosive per hole:	0.72 kg																
Dia. of Hole:	32 mm																
Number of holes /day	32 Holes																
Life of mine	12 Years																
Transportation details	By dumper, tipper																
Dumpers capacity	10 Tonne																

7. Land Area Breakup:

Private land	9.66 ha (Agriculture)
Government land	--
Total Mining lease area (MLA)	9.66 Ha

8. Nearest village / town/ highway/railway station / water bodies

Particular	Distance (km)	Direction
Village/Town		
Mewasa	0.85	SW
Highway		
SH-6	6.90	S
SH-29	8.90	SSE
Railway Station		
Bhopalka Railway Station	13.13	SE
Water Bodies		
Rani Nadi	3.64	SW
VedmatiNadi	8.45	ENE
Gulf of Kachchh	5.05	NNW
KhimpatVokro	13.25	ENE
High Water Line	4.58	NNE

9. Water requirement

Total water requirement	6.50 KLD	Fresh water	6.5 KLD
		Treated water	Nil
Source	Ground Water		
Permission	--		
Additional information	Application for NOC from CGWA for ground water abstraction to tune of 6.5 KLD has been uploaded online at CGWA vides proposal no. 21-4/5270/GJ/min/2019 dtd 25.07.2019. The same was not followed with department due to non-functional of mine.		

10. Presence of Environmentally Sensitive areas in the study area

Forest Area/Environmental Zone	Land/Protected Sensitivity	Yes/No	Details of Certificate/letter/Remarks
Forest Land		No	No forest land within lease area
National park		Yes	Letter obtained from the Office of the Chief Conservator Forest, Marine National Park, Forest Department Near Nagnath Gate, Jamnagar vide letter no. K/ JMN/ 24/ Te – 7/ 536/ Year – 2016 – 17 dated 17.12.2016
Wildlife Sanctuary		Yes	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Yes	During the study 1Schedule- I Faunal species were recorded form the buffer zone viz. Peafowl (<i>Pavocristatus</i>) Authenticated List of Flora and Fauna is obtained from the office of DFO, Jamnagar, Gujarat, vide letter no. S. No/ K/JMN/24/TE-7/815/YEAR 2028-19, dated 16.02.2019
Wildlife Conservation Plan	Yes	Submitted in the office of DFO, Jamnagar, Gujarat, vide letter no. Nil, dated 10.09.2017. The same was not followed with department due to non-functional of mine and nor there was any revert from the department.

11. Green belt/plantation details:

Proposed area for green belt/plantation	1.2945 Ha.
Budget for green plant& plantation till the end of life of mine.	Rs. 6,47,000 Lacs
Additional information	Proposed Plantation will be done outside the lease

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	0.893
50 m safety zone of nallah, roads	--

100 m safety zones of nearest habitation villages	--
Additional information	Plantation outside the lease area: 1900 plants

12. Baseline detail

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	Oct, Nov, Dec '2015
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Winter Season

13. Public Hearing (PH) Details

Advertisement for PH with date	26.052018 – Phoolchhab 27.052018 - Times of India
Date of PH	30.06.2019
Venue	At Mine Site, Survey No. 138, Village – Mewasa, Taluka – Kalyanpur, District – DevbhumiDwarka (Gujarat)
Chaired by	❖ Sh. Hiren Vyas, Resident Additional Collector & Additional District Magistrate, DevbhumiDwarka
Main issues raised during PH	1. Education and training 2. Employment opportunities
Budget proposed for addressing issues raised during PH	3.8 Lakh

14. Court case details:

Court Case	A case was filed against the Company in Hon'ble Judicial Magistrate in Kalyanpur Court for not obtaining Environmental Clearance and did the violation of EP Act, 1986, after hearing the court instructed the Project Proponent to deposit the fine of Rs. 20,000/- by each partner. In reference to that, each partner of the company has deposited the fine vide G. R., H. D., NO. 3360/ 3 dated 07.11.33 JM. M. 204 e dated 28.03.2017.
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15. Rehabilitation & Resettlement:

R & R details	Not Applicable
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16. Affidavit/Undertaking details:

Affidavit/Undertaking	Copy has been submitted along with Final EIA.
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17. Details of the EMP

The total capital cost for implementation of proposed EMP is about Rs. 19.07 Lakhs and Recurring Cost is about Rs. 7.5 Lakhs.

S. No.	Description	Capital Cost (Rs. In Lacs)	Recurring Cost (Rs. In Lacs)
1.	Environmental Monitoring (Micro Meteorology, Air, Water, Noise etc.)	--	3.0

2.	Pollution Control (Dust Suppression & Water Sprinkling etc.)	5.0	2.0
3.	Occupational Health and Safety (Initial & Periodical Medical Check-ups)	2.0	1.0
4.	Green Belt (phase wise greenbelt development during life of mine i.e. 12 Years)	6.07	1.0
5.	Conservation Plan for Schedule – I Specie. i.e. Pea-Fowl	5.00	00
6.	Environmental Awareness Program	1.0	0.5
Total		19.07	7.5

18. Details of Project Cost and Employment:

Particulars	Details (Rs. In Crore)
Capital Cost for Environment Protection	0.190
Budget for addressing the Public Hearing issues	0.038
Total Cost for EMP	0.273
Recurring Cost for EMP	0.075
Project Cost	0.75
Employment	60 persons

17. Observation and Recommendation of the Committee:

The proposal for Environmental Clearance was considered in the 46th EAC meeting held during 15th to 17th February, 2022. Based on the documents submitted and the presentation by the project proponent and the consultant, the Committee observed that earlier, the proposal was appraised for Environmental Clearance during 10th EAC(non-coal) meeting held on 21st – 22nd October 2019, wherein it was clearly mentioned that the project proponent has operated the mine without obtaining Environmental Clearance. The relevant extract is as follows: *“The Committee had a detailed discussion on the PP’s submission. The Committee mentioned that PP carried out mining activity without environmental clearance till 2014. The Committee further considered the submission of PP that criminal case was filed and penalty paid for the period when operation was done without EC. The committee suggested that ministry may take a view for consideration of the proposal for appraisal on ground of lateral entry as the proposal was granted ToR prior to the notification no. S.O. 804 (E) dated 14.03.2017. In view of this, the Committee deferred the proposal and referred the proposal to Ministry for investigating the proposal for its validity for consideration. Accordingly, requisite information may be sent to PP for compliance, if any, before the proposal is requested for reconsideration by the Committee.”*

Accordingly, the Ministry found that the Terms of Reference was obtained by the project proponent on 31.08.2015 and TOR extension letter was issued on dated 15.10.2018, TOR was valid till 30.08.2019. The project proponent applied for Environmental Clearance on 01.08.2019 i.e. before the expiry of validity of the Terms of Reference. Further, as per the

Hon'ble Gujarat High Court's order dated 28.10.2021, the proposal was considered for appraisal of Environmental Clearance. The relevant extract is as follows: *"We have not expressed any opinion on the question whether such clearance be granted or not. It is for the authority concerned to look into every aspect of the matter and take an appropriate decision. What we do not appreciate is not taking any decision without any good reason & not even informing the party concerned. Whatever may be the stage at which the issue is pending, let an appropriate decision be taken in accordance with law and the same be communicated to the writ applicant so that writ applicant can avail further steps or remedy in accordance with law."*

Further, as per the Hon'ble Supreme Court order dated 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of Common Cause versus Union of India and Ors, the project proponent have to pay the compensation as per common cause. The instant case is under violation as per the Standard Operating Procedure (SOP) issued by the Ministry on dated 7th July 2021 for identification and handling of violation cases under EIA Notification 2006 in compliance to order of Hon'ble NGT in O.A. No.34/2020 WZ and Ministry's O.M dated 28.01.2022. After detail discussions, the Committee **deferred** the proposal due to want of the following assessment studies in a separate report:

- i. The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986 and further no consent to operate to be issued till the project is granted EC. If the action has been initiated by the State/State PCB, status of the same may be submitted to the Ministry.
- ii. The Project Proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.

vi. The project proponent needs to submit the Affidavit in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores is submitted to MoEF&CC.

vii. Project proponent to pay the compensation as per order of Hon'ble Supreme Court dated 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of Common Cause versus Union of India and Ors, the

Day 2: 16th February, 2022 (Wednesday)

2.1 Proposal for Environmental Clearance of Parewar B Limestone Mine of M/s Wonder Cement Limited with totalexcaavation of 14,00,000 TPA, Limestone production - 10,00,000 TPA(SMS grade - 1,00,000 TPA, Cement grade- 9,00,000 TPA), Inter-burden (IB)-23,860 TPA, Top Alluvium (OB)-42,804 TPA, Sub Grade/Mineral Reject-3,33,335 TPA) along with 750 TPH Crusher with vibrating screen in the minelease area of 515.20 Ha located at Village Parewar, Tehsil & District Jaisalmer,Rajasthan– [File. No: IA-J-11015/25/2021-IA-II(M), Proposal No: IA/RJ/MIN/205768/2021]

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

2. Project details:

Name of the Project	Parewar "B" Limestone Mine (ML Area – 515.20 Ha) for proposed total excavation of 1400000 TPA, total limestone production of 10,00,000 TPA (SMS grade - 1,00,000 TPA, Cement grade- 9,00,000 TPA), Inter burden (IB) of 23,860 TPA, Top Alluvium(OB) of 42,804TPAand subgrade/mineral reject of 3,33,335 TPA along with 750 TPH Crusher with Vibrating Screen.	
Location	Village	Parewar
	Tehsil/Taluka	Jaisalmer
	District	Jaisalmer
	State / UT	Rajasthan
	Latitudes	27°17'31.76919"N to 27°20'9.53770"N
	Longitudes	70°44'4.48756"E to 70°44'49.75482"E
	SoI Topo sheet No.	40 I/11
Company Name	M/s Wonder Cement Limited	
Accredited Consultant Organization and its certificate no.	Udaipur Min- Tech Pvt. Ltd. NABET/EIA/1720/SA 092	
KML file	Submitted	

Seismic zone	III
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3. Category details:

Category of the project	Category “A”, Project or Activity 1(a) – 3 for Mining of Mineral
Provisions	As per EIA Notification S.O. 1533 (E), dated 14th September 2006 and subsequent amendments
Mining lease Area	515.20 Ha

4. ToR Details:

ToR Proposal No.	IA/RJ/MIN/205768/2021
Online application date for Form-I	24 th March 2021
EAC meeting for ToR	28 th June 2021
ToR Letter No.	IA-J-11015/25/2021-IA-II (M)
ToR grant Date	26 th July, 2021
Production capacity (TPA)	Limestone: 10,00,000/- TPA (SMS grade -1.0 Lac, Cement grade- 9.0 Lac)
Soil	Top Alluvium- 42804 TPA
Waste	Inter-burden (I/B)- 23,860 TPA
Others	Sub Grade/Mineral Reject-3,33,335 TPA
Total Excavation	14,00,000/- TPA (ROM)
Crusher	750 TPH Crusher with Vibrating Screen to be setup within the mining lease area
EIA/EMP uploaded on	23 rd October 2021
Earlier EAC meeting for EC appraisal	41 st EAC meeting held during 15 th – 16 th November and 18 th November, 2021 wherein the Committee deferred the proposal due to lacunae in the proposal. 44 th EAC (Non-Coal Mining) meeting held during 28 th – 29 th December, 2021wherein the Committee deferred the proposal due to lacunae in the proposal.

5. Lease Details:

Letter of Intent	The LOI for the instant mine site was granted to M/s Wonder Cement Limited in accordance with mines & Minerals (Development and Regulation) Act, 1957 and its subsequent amendment and the Mineral (Auction) Rules, 2015through e-auction conducted by Directorate of Mines & Geology (DMG), Government of Rajasthan	
	Letter No.	P.3(4)Khan/Gr.-2/2020
	Date	25 th January 2021

6. Mining plan details:

Mining Plan(approved by Indian Bureau of Mines/DMG)	Letter No.	584 (4) (3) (1867)/ 2021- KHANI-AJM
	Date	27 th May 2021
	Validity	26 th May 2026

Mining Parameters	Quantitative Description
Method of Mining	Fully Mechanized Open Cast method
Mineable reserves (Source: Approved Mining Plan)	Total Mineable Reserves:147.3853 Million Tones Cement grade:139.8435 Million Tones SMS grade:7.5418Million Tones
Bench Height	3.5-6.0 m
Bench Width	10-20 m
Individual bench slope	85°
Overall pit slope	45°
Drilling/Blasting	180 m per day & 26 holes per day blast
RoM output size	SMS Grade: 30 to 80 mm Cement Grade: 10 to 80 mm
Life of mine	50 years
Working days	330 days
Transportation details	Transportation from mine pit to crusher will be done by dumpers via haul road within mine lease area and crusher to railway yard is transported by tippers through district tar road and SH-68. The limestone from mines to railway yard will be transported by 25 T Tippers capacity. Material will be transported for 330 days per annum.
Dumper's capacity	25 Tonnes

7. Land Area Breakup:

Private land	32.00 Ha.
Government land	483.20 Ha.
Mining lease area	515.20 Ha.

8. Nearest village / town/ highway/railway station / water bodies:

Particulars	Particular's name	Distance & Directions
Nearest Town	Parewar	4 Km
Nearest Airport	Jaisalmer Airport	68 km
Nearest Highway	SH 68 NH-15	12 Km West 58 Km South
Nearest Railway Station	Jaisalmer	52 km

9. Water requirement

Total water requirement	150.00 KLD	Fresh water	126 KLD
		Treated water	24 KLD
Purpose	Drinking & Sanitations	20.0 KLD	

	Dust Suppression during mining, Crusher Operation and Machinery Washing	100.0 KLD
	Plantation	30.0 KLD
Source	The sources of water i.e. Indira Gandhi Nehar project / Ramgarh Canal	
Permission	Applied for Permission from Indra Gandhi Canal Circle, Jaipur (Rajasthan)	

10. Presence of Environmentally Sensitive areas in the study area

Forest Area/Environmental Sensitivity Zone	Land/Protected	Yes/No	Details of Certificate/letter/Remarks
Forest Land		No	-
National Park		No	
Wildlife Sanctuary		No	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	No	No schedule I species found within the study area. Authenticated list of Flora and Fauna is submitted from District Forest Officer.

11. Green belt/plantation details:

Proposed area for green belt/plantation	170 ha. (At the end of life of mine) 170 ha = (97.0 ha Mined out benches, 15.0 ha Alluvium Dump, 8.0 ha IB dump (Face Reject) & 50 ha barren land
Budget for green plant & plantation till the end of life of mine.	Capital cost: 25 lacs Recurring cost: 16 lacs
Budget for nursery	5 lacs
7.5 m barrier & non-mineralized zone	5.00 Ha

12. Baseline detail

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)		
Period of baseline data collection	March to April 2021 and June 2021	
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer Season	
Air quality monitoring	PM ₁₀	53.3 - 76.0 µg/m ³
	PM _{2.5}	19.0 - 32.70 µg/m ³
	SO _x	3.30 - 18.0 µg/m ³
	NO _x	5.10- 17.8 µg/m ³
Surface water quality monitoring	pH	7.4 – 7.9
	DO	5.7 - 6.3 mg/l
	BOD	2.82– 3.82 mg/l
	COD	11.22 - 15.25 mg/l
Noise monitoring	Day time	50.4 - 69.2 dB(A)

	Night time	40.1 - 57.3 dB(A)
Soil quality monitoring	pH	7.07 - 7.47
	Nitrogen	10.71 - 21.42 kg/ha
	Phosphorus	5.11 - 14.40 kg/ha
	Potassium	40 - 110 kg/ha
Sandstorm speed	Summer	20-60 km/hr.
	Winter	6-20 km/hr.
Correlation to impact on water property (Additional water quality data was collected for one week as per ADS dated 26.11.2021)	The Biological Oxygen Demand and turbidity of collected water samples is between range from 0.4 to 1.3 mg/l and <1 NTU respectively. The analysed values are well within the prescribed standard of IS 10500:2012 standard. Hence, there is negligible value of BOD level in surface water the less effect on water quality for aquatic life and other uses.	

13. Public Hearing Details:

Advertisement for PH with date	13 th August 2021
Date of PH	15 th September 2021
Venue	Rajiv Gandhi Atal Seva Kendra village-Parewar, Tehsil & District-Jaisalmer (Rajasthan)
Chaired by	Shri. Hari Singh Meena, Additional District Collector, Jaisalmer
Main issues raised during PH	Employment in industry, Social & Economic development work in nearby area in the field of Education, Health etc., Pollution etc.
Budget proposed for addressing issues raised during PH	212 Lacs

14. Court case details:

Court Case	No court case/litigation is pending against the project.
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15. Affidavit/Undertaking details:

Affidavit on a Non-Judicial stamp paper of Rs. 100 bearing AZ 265110 dated 08.11.2021 as per Ministry's OM dated 30.05.2018	The company hereby undertake by affidavit that it will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
PP submitted an undertaking dated 16.10.2021	The conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide letter no. J-11015/25/2021-IA.II (M) dated 26.07.2021 have been complied with, and the data submitted and information

	presented in this report are factually correct.
Consultant submitted an Undertaking dated 08.11.2021	The Consultant submitted an undertaking to the effect that the data and the information provided in the EC application of Parewar B Limestone mine are to the best of consultant's knowledge and if any information is found to be false at any stage, then, EC would be rejected.

16. ADS details: The proposal for Environmental Clearance was earlier considered in the 44thEAC (Non-Coal Mining) meeting held during 28th – 29thDecember, 2021. The ADS was raised on 07.01.2022. The project proponent replied on 18.01.2022:

ADS Point 1: The project proponent needs to revise and submit the EMP budget for ambulance, health facilities, annual camp, water supply, roads etc. which seems to be under-budgeted and needs to be revised to about 3 crores as per the suggestions made.

Reply:The EMP budget for ambulance, health facilities, annual camp, water supply & roads is revised to 3 crore and updated in the detailed EMP. The Detailed EMP budget on the basis of advice of honourable committee members during the meeting has been revised and is given in Table. 1.

Table- 1Year Wise Action Plan for Implementation of Public Hearing Issue

Budgeted Amount in Lakh							
Thematic Area	Activity	Village Name	Cost Year 1	Cost Year 2	Cost Year 3	Capital Cost	Recurring/ 4th Year onward s Cost
Education Support Programme (Wonder Udaan)	Distribution of Education kit dresses, mask & stationery to student of Govt. School	Parewar, Kabirbasti	7.5	-	-	18.75	6.25
		Naga	-	5	-		
		Joga, Kakab	-	-	6.25		
	Support for students for preparation of Board examination and Facilitation of best performing girls-boys	Parewar	1	-	-	3	-
		Kabirbasti, Naga,	-	1	-		
Establishment of Computer Lab with furniture in Village Schools		Kabirbasti		4		4	0.5

	Supply of computers set with printers	Parewar	1.1	-	-	3.3	1.2
		Naga		1.1			
		Joga, kakab	-		1.1		
	Supply of Sports kits cricket kit/football kit/bollyboll kit to Govt. School children for sports of their choice	Parewar,	0.5	-	-	1.75	0.5
		Kabirbasti , Naga,	-	0.75	-		
		Joga, Kakab	-		0.5		
	Supply of Furniture in Schools	Parewar	3	-	-	7.5	1
		KabirBasti	-	2	-		
		Naga, Joga, Kakab	-	-	2.5		
	Renovation of Classrooms / Roof/water storage tank /Painting work and Girls & Boys Toilet blocks etc.	Parewar	10	-	-	25	3
		KabirBasti	-	5	-		
		Naga, Joga, Kakab	-	-	10		
	Supply of Sanitary pad vending & incinerator machine	Parewar,	0.6	-	-	1.8	0.3
		Kabirbasti , Naga,	-	0.6	-		
		Joga, Kakab	-	-	0.6		
Sub total 1			23.7	19.4	21.9	65.1	12.75
Health Program me (Wonder	Refurbishment and Infra support to Govt. primary health center	Parewar, Kabirbas ti	12	-	-	30	5
		Naga	-	6	-		

Arogyam- Preventiv e Health Care initiatives Program me)	(PHC) as per requirement and to equip with Covid Care Facilities (Like patient bed, examination couch, table, chair, labour table, stretcher, trolley, wheel chair, Sanitary pad vending & incinerator machine, Medical Furniture, Renovation of Buildings etc.)	Joga, Kakab	-	-	12		
	Arrangement of well equipped ambulance to cater health & referral needs of villages - Parewar, Kabirbasti, Naga, Joga, Kakab.	Parewar	20	-	-	20	6
	<ul style="list-style-type: none"> ● Monthly Medical check up camp covering in each village on rotation basis ● Annual Eye Check-up Camp in partnership with Govt. Block Department 	Parewar, Kabirbas ti,	6			14.4	4.8
		Naga, Joga,		5.6			
<ul style="list-style-type: none"> ● Periodic Veterinary Health Check up Camp on quarterly Basis covering in each villages 	Kakab			2.8			
	Parewar, Kabirbas ti, Naga,	1.5		2.5	6	2	
	Joga, Kakab			2			
Sub total 2			39.5	14.1	16.8	70.4	17.8
Infrastruc	Support to Gram	Parewar	4	-	-	12	4

ture Develop ment Program me (Wonder Sanracha na)	Panchayat for Providing Safe drinking water for contributing along with Ongoing Govt. Scheme Jal Mission	KabirBasti	-	4	-		
		Naga	-		4		
	Establishment of filtration plant with Solar Setup and for Safe Drinking Water	Parewar	10	-	-	30	2
		KabirBasti	-	10	-		
		Joga	-		10		
	Repairing or Construction of Village Tanka for drinking Water facility	Parewar, Kabirbasti	4	-	-	10	2
		Naga	-	2	-		
		Joga, Kakab	-	-	4		
	Contribution to Gram Panchayat under Jan SahbhagitaYojna for Construction of Tar road.	Parewar	15	-	-	45	4.5
		Kabirbas ti	-	15	-		
Kakab/Na ga		-	-	15			
Contribution to Gram Panchayat under Jan SahbhagitaYojna for construction of Bus Shelter /Community Center per Panchayat	Parewar	4.5	-	-	13.5	2	
	KabirBasti / Joga	-	4.5	-			
	Naga	-	-	4.5			
Sub total 3			37.5	35.5	37.5	110.5	14.5
Natural Resource Manage ment (Wonder Eco- green Initiatives)	Installation of Solar Street Light at key location in villages	Parewar	1.6	-	-	6	0.32
		Kabirbasti , Naga	-	2.4	-		
		Joga, Kakab	-	-	2		
	LED Bulb Distribution in Village	Parewar, Kabirbasti	0.72	-	-	1.2	0.2
		Naga	-	0.16	-		
		Joga, Kakab	-	-	0.32		
Development of Plantation in Public Place, Schools,	Parewar	2.25	-	-	9	4.5	
	Kabirbasti , Naga,	-	4.5	-			

	Hospitals, panchayat, Community center with tree Guard	Joga, Kakab	-	-	2.25		
	Distribution of Fruits plants, medicinal Plants, suitable to Local climatic Conditions	Parewar, Kabirbasti, Naga,	1.5	-	-	4.5	0.75
		Joga, Kakab	-	-	1.5		
		Parewar, Kabirbasti, Naga,	0.2				
	Grazing Land Development (Distribution of Good Quality Seeds to Panchayat for development of Grazing Land)	Joga, Kakab			0.2		
Sub total 4			6.27	8.76	6.27	21.3	6.17
Women Empowerment Programme (Wonder Hunar)	Training & Create brand of handloom products developed by women artisan for income generation skills to Women in craft, embroidery, handloom etc.	Parewar, Kabirbasti	3	-	-	15	9
		Naga	-	6	-		
		Joga, Kakab	-	-	6		
	Train women for value addition in crop production to increase their income generation	Parewar, Kabirbasti,	1			2.5	1
		Naga, Joga		1			
		Kakab			0.5		
	Support local art, craft, cultural activities	Parewar, Kabirbasti,	1			2.5	1
		Naga,		0.5			
		Joga, Kakab			1		
		Project Coordinator, field workers, travel & other cost for implementation of activity	-	6	6	6	18
Sub total 5			11	13.5	13.5	38	17
Grand Total			117.97	91.3	96.0	305.3	68.22
				1	2		

ADS Point2:-The project proponent needs to submit a detailed note on size of the material transported its transit storage at siding before loading and the measures proposed for fugitive emissions.

Reply:Limestone deposit in the mine lease area is defined in two categories and is deposited in layers. Upper layers consist of SMS grade (Steel grade) having thickness of 1-4 meters and found in patches. Lower layer of limestone, having thickness of 13-27.5 meter known as chalky limestone (cement grade).

SMS grade is used in steel industry and govt. also reserve this deposit only supply to steel industry. Steel industry is using of specific size of 30mm to 80mm.

Below 30 mm size of SMS grade limestone can be used in cement industry with the prior permission of govt. So, we will use -30 mm SMS grade limestone which is not useful in steel industry, will be utilize in cement industry.

Chalky limestone (cement grade) deposited below the SMS grade and somewhere expose directly on surface can be used in cement industry but not useful in steel industry due to their physical and chemical properties. This limestone will be used from 10 to 80 mm size after crushing and screening at site and supply to cement industry.

Hence we will transport the limestone (e.g. 10-80 mm for cement grade and 30-80 mm for SMS grade) upto railway siding for supply to steel and cement industries.

Before transportation to railway siding, material will be screened at site and under sized (-10 mm) will be segregated before crushing and dumped at earmarked site as per approved mining plan. Fugitive emission during material handling of size 10-80 mm will be insignificant at railway siding further water spray system to control the fugitive dust emission at loading point at railway siding and at mines loading point will be in practice. Transit storage of limestone at railway siding will be for approximately 8 to 10 Hours. In view of insignificant dust emissions at railway siding during loading of limestone, construction of silo is not envisaged.

Further we propose to carry out the regular environmental monitoring at railway siding for which the budget provision has already been considered in our detailed EMP budget.

ADS Point 3: The project proponent needs to submit a detailed note regarding impacts due to transportation near Parewar village and protective measures suggested near the villages such as regarding plantation, regulation of speed to 25 km/hr, installation of cameras to regulate the speed for the entire stretch. Also, the road should be 9 m wide with a divider with proper safety measures. The budget of the same needs to be included in the EMP.

Reply: Only about 280 m length of existing road of material transportation route is passing at the edge of Parewar village. Further we are proposing to carry out Plantation/Greenbelt Development fast growing tree plantation all along total 12 km length, the existing road connecting mine lease to SH-68 (Jaisalmer - Tanotmata road) towards Sanu Railway Siding which is 10.8 Km stretch and 1.2 Km long kachcha road which help in control the particulate matter emission. Hence, we anticipate that there will be no significant impact due to transportation of limestone near Parewar village.

The speed limit will be maintained up to 20Km/hr (in parewar village) and requisite no. of speed breaker to be constructed in the stretch of 280 meters. The regular maintenance of road will be done including after every monsoon. Display of traffic signage at various place on both side of the road.

Vehicle speed of 25 km/Hr will be maintained by installing speed governor in each and every transport vehicle by OEM (Original Equipment manufacturer). Hence speed of transportation vehicle will be maintained automatically governed by speed governor, we are not anticipating requirement of camera on entire road. Similar type of system is being already in practiced for transportation of limestone by dumper/tippers from our mines in our Integrated Cement plant at Nimbahera, Chittorgarh, Rajasthan.

Undertaking by Wonder Cement limited has already been submitted to MoEFCC&CC that the 1.2 km Kachcha road will be converted into Tar road. As advised by the Hon'ble EAC committee during the last meeting, the width of the road will be maintained to 9 m.

The budget has been earmarked for the implementation of safety precaution, road diversion and road width etc. in our revised EMP Budget presented in table No. 2 Point No.19 and 20.

Table-2 Detail EMP Budget

S. No.	Particulars	Rupees in Lakh	
		Capital	Recurring per Year
1	Installation of Bag Filter in crusher, transfer points and close conveyor belt	100	10
2	Acoustical measures at crusher control room	25	4
3	Water mist sprinkler at limestone unloading hopper at crusher, transfer point and belt conveyors	20	5
4	Water sprinkler at limestone transfer point and belt conveyors	20	5
5	Water sprinkler at limestone at belt conveyors	15	5
6	Truck mounted water sprinkler for mining area	30	10
7	Fixed water pipeline with sprinkling nozzles on two edges of haul roads	25	5
8	Tippers Tyre Washing System	30	5
9	Oil Water Separator at heavy earth moving machinery washing area	15	5
10	Construction of garland drain	25	5
11	Construction of silting pit for storm water drainage system	15	4
12	Sewage Water Treatment System	50	5
13	Construction of Rainwater harvesting structures	20	5
14	Miscellaneous Work	25	10
	Sub Total	415	83

15	Budget for Plantation/Greenbelt Development in Mine Lease Area		
15.1	Plantation & Green belt (2.0 ha, 5000 nos plant @500 Rs.) in FY 2022-23 on 7.5 Statutory boundary.	25	5
15.2	Plantation & Green belt (2.0 ha, 5000 nos plant @500 Rs.) in FY 2023-24 on 7.5 Statutory boundary.	25	5
15.3	Plantation & Green belt (2.0 ha, 5000 nos plant @500 Rs.) in FY 2024-25 on 7.5 Statutory boundary.	25	5
15.4	Plantation & Green belt (2.0 ha, 5000 nos plant @500 Rs.) in FY 2025-26 on 7.5 Statutory boundary and Non Mineralize Zone .	25	5
15.5	Plantation & Green belt (2.0 ha, 5000 nos plant @500 Rs.) in FY 2026-27 on 7.5 Statutory boundary and Non Mineralize Zone .	25	5
15.6	Plantation & Green belt (160 ha, 242500 nos plant @500 Rs.) on wards from FY 2027-28 upto End of Mine Life as per Green Belt Plan	2000	400
15.7	Drip irrigation system for maintenance of plants	30	5
	Sub Total	2155	430
16	Budget for Plantation/Greenbelt Development in along the existing road connecting mine lease to SH-68 towards Sanu Railway Siding which is 12 Km stretch and 1.2 Km long kachcha road in EMP		
16.1	I st Year (in FY 2022 - 2023)	78	18
16.2	II nd Year (in FY 2023 - 2024)	13	3
16.3	III rd Year (in FY 2024 - 2025)	13	3
	Sub Total	104	24
17	EMP Cost for public hearing		
17.1	EMP Cost for Public Hearing Action Plan for 3 Years	305.3	68.22
	Sub Total	305.3	68.22
18	Post Environmental Monitoring Cost of Air quality, Soil quality, Water quality and Noise level in Mining Area Including Railway Siding		
18.1	Establishment of Environmental Laboratory and Monitoring Equipment's for Ambient Air, Water, Noise, Soil etc.	50	2
18.2	Establishment of 4 Nos. of AAQMS Manual Monitoring Station and Monitoring of Ambient Air	25	2.5
18.3	Establishment of 2 Nos. of online AAQMS Monitoring Station	120	10
18.4	Post Environmental Monitoring of Water Quality including Surface water, Waste Water Quality (STP & Oil water Separator etc)	-	5
18.5	Post Environmental Monitoring of Ambient Air Noise, Work Zone Noise, Personal Noise etc	-	4

18.6	Post Environmental monitoring for Soil	-	2
18.7	Post Monitoring of Blast Vibration	5	2
	Sub Total	200	27.5
19	EMP Cost for Kachcha road		
19.1	Conversion of Kachcha road into Tar road with 9 meter width	45	2
19.2	Plantation Cost is already considering in point No. 8 as per Our Green belt Development Plan	0	0
19.3	Water sprinkling and other miscellaneous cost for control of particulate emission	3	1
	Sub Total	48	3
20	EMP Cost for Road Safety Precautions		
20.1	Development of Road Breaker in road for controlling of speed	10	2
20.2	Signage /instruction of road safety in road side to control speed limit/ Follow the traffic rule /use of helmets etc.	2	0.5
20.3	Speed governor to all transported vehicles	1.5	0.5
20.4	Any other miscellaneous for road safety work	2	1
	Sub Total	15.5	4
	Grand Total	3240.80	639.72

ADS Point 4: The project proponent needs to submit a written commitment that the project proponent will not access the current private land for next 20 years and will permit the agricultural practices to continue without any environmental impacts.

Reply:Out of 512.20 ha lease area, 483.20 ha is a Govt land and balance 32 ha is a private land. As per the approved mining plan, the mining will be done in the govt land and hence we are not anticipating mining with proposed rate of limestone production in the private land in next 20 years. We hereby give the commitment to allow the agriculture practices in the agriculture land till the land is purchased. commitment is submitted as an Annexure in the reply.

ADS Point 5: The project proponent needs to submit the details of separation of - 10mm sized material and above. The project proponent also needs to submit the control measures taken and the possible impacts with control measure.

Reply:ROM will be transported from mine pit to crusher with the size of up to 1000 mm, further this material will be feed into crusher hopper which will be equipped with bag filter and automatic water sprinkling system for control of dust & fugitive emission. This material will be go to grizzly/blow bars and material will be separated on it in size of +80 mm and - 80 mm. -80 mm material will be go to vibrating screen plant for screened out by 10 mm screen and there -10 mm material will be stacked separately as screened reject and +10 mm will be go to as a product and will be supplied to cement and steel industries. -10 mm material will be dumped at a earmarked site as per approved mining plan. The screen dump will be maintained with specific height, width and slope as per approved mining plan

to avoid the failure of dump. The garland drain and retaining wall also will be constructed and maintained around the screen dump.

This -10mm material will have moisture due to water sprinkling in crusher hopper, so during handling of this material there will be negligible fugitive emission takes place. After dump the screen reject in screen dump in mine area, the water spraying will be carried out on it time to time to control the fugitive dust emission. In future if cement plant will be established than this screen reject will be totally utilized as raw mix for cement manufacturing.

ADS Point 6: The project proponent needs to submit the impacts on Kabirbasti which is 1.2 km in the downwind direction (North) from the mine boundary.

Reply: Air quality impact on kabirBasti village which is 1.2 km in the downwind direction (north) from the mine boundary is already considered in during our environmental impact assessment in chapter 4 para no. 4.4.2 under the air quality modelling and impact assessment. Detail Air quality modelling on same receptor has been carried out presented in below.

RESULTANT GLCCONCENTRATION VALUE OF PM 10

Receptor/Location	Background Maximum Concentration ($\mu\text{g}/\text{m}^3$) PM10	Total* Incremental Concentration ($\mu\text{g}/\text{m}^3$) PM10	Resultant Concentration ($\mu\text{g}/\text{m}^3$)
KabirBasti village	69.9	0.132	70.032

RESULTANT GLCCONCENTRATION VALUE OF PM 2.5

Receptor/Location	Background Maximum Concentration ($\mu\text{g}/\text{m}^3$) PM _{2.5}	Total* Incremental Concentration ($\mu\text{g}/\text{m}^3$) PM _{2.5}	Resultant Concentration ($\mu\text{g}/\text{m}^3$)
KabirBasti village	31.10	0.004	31.104

The incremental value of the at the KabirBasti Village is 0.132 $\mu\text{g}/\text{m}^3$ for PM10 and 0.004 $\mu\text{g}/\text{m}^3$ for PM2.5. the incremental concentration of PM₁₀ and PM_{2.5} at kabirbasti location is are within prescribed limit as per NAAQMS Standard 2009 and their amendment.

ADS Point7: The project proponent needs to re-check and submit the correct water quality data with a NABL accredited laboratory.

Reply: The water sampling and quality have been rechecked with an NABL accredited laboratory Udaipur Min Tech Pvt. Ltd, Udaipur, is attached as an Annexure in the reply.

17. Details of project cost and employment:

Particulars	Budget
Budget for addressing the Public	305.2 Lakhs

Hearing issues	
Total Cost for EMP	3240.80 Lakhs
Recurring Cost for EMP	639.72 Lakhs
Project Cost	35.27 Crores
Employment	130 persons

18. Observation and Recommendation of the Committee:

The proposal for Environmental Clearance was considered in the 46th EAC meeting held during 15th to 17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Environmental Clearance for Parewar B Limestone Mine of M/s Wonder Cement Limited with total excavation of 14,00,000 TPA, Limestone production - 10,00,000 TPA (SMS grade - 1,00,000 TPA, Cement grade- 9,00,000 TPA), Inter-burden (IB)-23,860 TPA, Top Alluvium (OB)-42,804 TPA, Sub Grade/Mineral Reject-3,33,335 TPA) along with 750 TPH Crusher with vibrating screen in the mine lease area of 515.20 Ha located at Village Parewar, Tehsil & District Jaisalmer, Rajasthan subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects:

- 1) The budget for addressing public concerns that is raised to 3.05 Crores to incorporate the budget of additional 20 lakhs for creating filtration facilities for Naga and Kakab villages and 25 lakhs for providing smart phones/tablets to all the students in all the five villages i.e. Parewar, Joga, Naga, Kakab and KabirBasti. The project proponent besides having committed to strengthen the existing government facilities will also provide free health facilities to the villagers at the hospital to be set for the employees of Parewar B mines at the site and the same should also be displayed on the board prominently outside the hospital.
- 2) The project proponent shall explore possibility of utilizing the SMS grade -10 and -30 mm grade for steel plants and also must provide proper management of -10 mm rejects.
- 3) The -10 mm size particles should loaded on to the dumper through hopper directly. No re-handling with the loader is permitted at loading points near the screening site.
- 4) As submitted by the project proponent during the presentation, the proposed road for transportation passing adjacent to the Parewar village will be used only for 3 years as the railway siding will be ready within 3 years.
- 5) The construction of filtration plant in all the villages for drinking water supply will be completed in 2 years in all the five villages i.e. Parewar, Joga, Naga, Kakab and KabirBasti and accordingly provision for capital and recurring cost of EMP budget be made.
- 6) The project proponent shall submit the actual action that will be taken with specific target completion for supply of drinking water location wise while undertaking the EMP for public hearing.
- 7) The action taken report of EMP for public concerns in terms of work completed and budget spent shall be submitted every year to the Ministry for review.
- 8) The ionic balance of water quality done by NABL accredited lab shall be submitted to the Integrated Regional Office, MoEF&CC.
- 9) The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.

- 10) The Project Proponent shall carry out the plantation with the survival rate of not less than 90% by planting 10 ft seedlings. Causalities should be replaced with new saplings every year and be counted separately other than the total proposed saplings. PP shall complete the peripheral plantation within 6 months from the start of mining operations. The data for such saplings should be furnished during six monthly compliance report along with the progressive plantation.
- 11) The Project Proponent should explore the possibility of using CNG/electric vehicles instead of Diesel for cleaner production options to reduce the emission.
- 12) Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers.

2.2 Proposal for Terms of Reference for proposed Bauxite mine with the production capacity of 0.9 MTPA in the mine lease area of 144.95 ha located at Village Nanar, Taluka Rajapur, District Ratnagiri, Maharashtra by M/s. Sociedade de Fomento Industrial Pvt. Ltd. – [File. No: IA-J-11015/67/2021-IA-II(NCM); Proposal No: IA/MH/MIN/226441/2021] - Terms of Reference

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

1. Project details:

Name of the Proposal	Nanar Bauxite Block with the production capacity of 0.9 MTPA in the Mine lease area of 144.95 ha	
Location	Village	Nanar
	Tehsil/Taluka	Rajapur
	District	Ratnagiri
	State / UT	Maharashtra
	Latitudes	N 16° 30' 38.83" N to 16°32'17.28"N
	Longitudes	E 73° 26' 46.70" E to E 73° 27' 39.78" E
	Sol/ Topo sheet No.	47H/6
Company's Name	M/s. Sociedade de Fomento Ind. Pvt. Ltd	
Accredited Consultant and certificate no.	M/s Mineral Engineering Services, Ballari, Karnataka NABET sr. no 112, dated 8 th May, 2020	
KML file	Submitted	
Seismic zone	II	

2. Category details:

Category of the project	Category A under Schedule 1(a) – Mining of Minerals activity
Provisions	EIA Notification 2006
Mining lease Area (MLA)	144.95 Ha.

3. ToR Details:

ToR Proposal No.	IA/MH/MIN/226441/2021
Online application date for Form-I	27 th August 2021
Documents Submitted	Form I and PFR
Production capacity	0.9 million tonnes per annum of Bauxite
Soil	NIL
Waste	9.304 million tonnes up to life of the mine
Total Excavation	19.304 million tonnes up to life of the mine
Earlier EAC Meeting	The proposal was considered in the 37 th EAC (Non-Coal Mining) meeting held during 15 th – 17 th September, 2021, wherein the Committee recommended the proposal for Terms of Reference. The Committee also suggested the Ministry to seek comments from the ESZ Division whether the project site falls under ESA of Western Ghats, as the site is in close proximity with the Western Ghats.

4. Lease Details:

Letter of Intent by Govt. of Maharashtra	Letter No.	MMN-0719/C.R42(Part- 10)/IND-9
	Date	10.09.2020
	Mineral	Bauxite
	Mine lease area	144.95 Ha
	In favor of	M/s Sociedade de Fomento Ind. Pvt. Ltd
	Validity of LOI	3 years i.e. till 09.09.2023
Validity of mine lease	50 yrs	

5. Mining plan details:

Mining Plan(approved by Indian Bureau of Mines/DMG)	Letter No.	MP/MECH-01(MAH)/GOA/2021-22
	Date	03.08.2021
	Validity	50 Years
Mining Parameters	Quantitative Description	
Bench Height	The height of the benches in ore and overburden shall not be more than the reach of machine used for digging	
Bench Width	Mining will be done as single bench	
Method of Mining	Opencast Mechanized Mining	
Individual bench slope	Mining will be done as single bench	
Overall pit slope	Mining will be done as single bench	
Drilling/Blasting	No	

ROM output size	Size = 0 to 75mm 75mm to 100mm 100mm to 150mm
Life of mine	14 Years (the life of the Mine may extend based on the proposed mineral exploration)
Transportation details	By road
Dumpers capacity	10 /35 Tonnes

6. Land Area Breakup:

Private land	144.3917 Ha
Government land	0.5583 (Road)
Total Mining lease	144.95 Ha

7. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Directions
Railway Station	Rajapur Road	35km
Town	Rajapur	18km

8. Water requirement

Total water requirement	150 KLD
Source	Mine Pit water and Well water
Permission	Not Applicable

9. Presence of Environmentally Sensitive areas in the study area

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	Not Applicable
National Park	No	
Wildlife Sanctuary	No	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Nil	

10. Green belt/plantation details:

Proposed area for green belt/plantation	9.0633 Ha
Budget for green plant & plantation till the end of life of mine.	10 Lakhs
Budget for nursery	2.0 Lakhs

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	6.1894 Ha
50 m safety zone of nallah, roads, electric lines	2.8739 Ha
500 m safety zones of nearest habitation villages	Nil

11. Court case details:

Court Case	No litigation is pending is against the project.
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12. Rehabilitation & Resettlement:

R & R details	There exist few structures towards the eastern side of the Mining Lease area, whenever mining advances towards these structures, the same will be shifted well in advance with necessary permissions from competent authority.
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13. Details of project cost and employment:

Particulars	Details
Project Cost	4.2 Crore
Employment	135 persons

14. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC meeting held during 15th to 17th February, 2022. Based on the deliberations made by the project proponent and the consultant, the Committee observed that earlier the proposal was considered in the 37th EAC (Non-Coal Mining) meeting held during 15th – 17th September, 2021, wherein the Committee recommended the proposal for Terms of Reference. The Committee also suggested the Ministry to seek comments from the ESZ Division whether the project site falls under ESA of Western Ghats, as the site is in close proximity with the Western Ghats. Accordingly, the IA Division sought comments from ESZ division in the Ministry, which are produced below:

“The fourth draft notification of the Western Ghats Eco-sensitive Area (WGESA) was published on 3rd October, 2018 and the validity of the draft stands till 31st December, 2021. Further, as per the draft notification of WGESA: There shall be a complete ban on mining, quarrying and sand mining in Ecologically Sensitive Area and all existing mines shall be phased out within five years from the date of issue of the final notification or on the expiry of the existing mining lease, whichever is earlier.

In the meantime, Ministry issued directions vide OM no. 1-4/2012-RE(Pt) dated 13.11.2013 with amendment to the directions issued vide O M no. 1/9/2018-ESZ dated 03.12.2018 banning following activities in WGESA: Mining, Quarrying and Sand Mining; Thermal Power Plan; Building and Construction of projects of 20,000 sq m area and above; Township and area development projects with an area of 50 ha and above and/or with built up area of 1,50,000 sq. m and above and Red categories industries. After the examination of the project location using Decision Support System (DSS), it is observed that the project site is located within the ESA area of Western Ghats (Maharashtra)”.

During the presentation, the project proponent submitted a letter from Maharashtra Government stating that the mine site is not falling in ESA of Western Ghats and also as per the Ministry's Notification S.O. 5135 (E) dated 3rd October 2018, the Nanar Village of Ratnagiri District does not fall in ESA of Western Ghats. However, the DSS used by the Ministry shows that the mine site falls in the ESA of Western Ghats. The Committee was of the view that joint report of Ministry's IRO, Bangalore and a senior officer from Forest department, Maharashtra Government to visit the site for ground truthing and joint report to be submitted to Ministry for necessary action. After detailed discussions, the Committee **deferred** the proposal.

2.3 Proposal for Terms of Reference with the proposed Ball and Fire Clay, Red and Yellow Ochre Mining Project with the production capacity of 1, 50,000 TPA in the Mine lease area of 147.31 Ha located near Village Indo KaBala, Tehsil Kolayat, District Bikaner, Rajasthan by M/s. Jai Chand Lal Daga – [File. No: J23-248/2018-IA.III (V), Proposal No: IA/RJ/MIN/74349/2018] - ToR

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th to 17 th February, 2022

The proposal of M/s Jai Chand Lal Daga is for grant of Terms of Reference for proposed Ball and Fire Clay, Red and Yellow Ochre Mining Project with the production capacity of 1, 50,000 TPA in the Mine lease area of 147.31 Ha located near Village Indo KaBala, Tehsil Kolayat, District Bikaner, Rajasthan. The mine lease area is located on survey of India Topo-sheet no. 45 A/13. The area is bounded between the coordinates Latitude 27°53'18.11" N to 27°53'43.54" N and Longitude 72°58'16.2" E to 72°59'26.59" E.

2. M/s Jai Chand Lal Daga had made an online application vide proposal no: IA/RJ/MIN/74349/2018 dated 12.04.2018 and submitted Form 1 and Pre-feasibility report under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category "A" of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 100 ha and appraised at Central level. The Ministry examined the proposal and the proposal was considered in the 13th EAC Meeting (Violation) held during 18-20th Sept., 2018 wherein the proposal was recommended.

3. Violation Details: Enhanced production without obtaining EC Details of violation. Production exceeded after EIA Notification, 1994 without obtaining EC. The project has already obtained Environmental Clearance for 1,50,000 TPA production. Capacity vide MoEF letter no. No.J-11015/270/2005-IA.II(M) dated 29.12.2006. It was applied for Amendment in EC for increase in life of mine from 9 to 57 years which was appraised before EAC during June 22-23, 2016. During examination it was noted that this was a violation case as the production had been enhanced after EIA Notification, 1994 without obtaining EC. Thus in compliance to the Gazette Notification of MoEF dated 14th March 2017 & its amendment dated 8th March, 2018 for violation cases, we have applied for the grant of EC under the provisions of EIA Notification, 2016.

4. Application (Form-1 & PFR) Fresh application was made online vide proposal no. IA/RJ/MIN/74349/2018 dated 12.04.2018 under violation category for Term of References (ToR) in terms of Provision of the Ministry's Notification S.O 804 (E) and Submitted Form-1 and PFR. The proposed project activity is covered under 'Schedule 1(a) of EIA Notification, 2006 and is a category 'A'.

5. Letter of Intent (LoI)/Mining Lease Details: The mine lease was granted in favour of M/s. Jai Chand Lal Daga dated 25.01.1974 which was first renewed vide govt. order no. F-8(28) Khan/Gr.2/94 Dated – 22.12.1994 in favour of Shri Jai Chand Lal Daga S/o Late Shri Champa Lal Daga R/o Bagreemohlla. Bikaner. The Mining lease agreement was executed on 31.03.1995 and registered on 26.04.1995 for the period of 20 years from Dt. 25.01.1994 to 24.01.2014. And whereas Govt. of India Ministry of Law & Justice has issued MMD&R Amendment ordinance 2015 on date. 12/01/2015 by which as per Sec./ 8A(6) period of mining lease was extended upto 24.01.2024.

6. Method of Mining & Mining Plan Details: The Mining Plan was approved by DMG vide LR No.SME/BKN/CC-III/M.P./M.L. • 1/93 /2289dated26.04.2016. As per which the method of mining shall be opencast/underground/mechanized etc.- Opencast manual mining method is used in approved Mining Plan. Please provide the details of:• (a) Drilling & blasting: There is no drilling and blasting done. (b) Bench height and width: Bench height is 3 m and width is 5 m. (c) Ultimate pit limited: Ultimate pit limit is 25 m. (d) Ultimate pit slope: Ultimate pit slope is 450 . (e) Intersection of Ground Water table if any: The Working will not intersect ground water table as water table is in the range of 110-130 m in core and buffer zone Pre-monsoon and Post-monsoon. (a) Number of top soil dumps with area and capacity: None• (b) No. of Waste/reject dump with area and capacity during the plan period and at the conceptual stage, backfilling plan if any: During Plan Period: 2 dumps over area of 3.508 Ha of 301950 m³ Conceptual Stage: No dump will be present at the end of life of mine. (a) Details of crushers/screen/beneficiation plant if any with capacity and• numbers: Not applicable (b) Water requirement for the project: Peak water requirement is 8.0 KLD, which will be met by nearby villages. (c) Plantation and green belt details: Green Belt/plantation has been developed in 5 ha around the lease periphery. The dead plants are replaced by fresh plants. At the end of mine life, backfilled area will also be covered under plantation. Total 10.150 hectare will be covered till 2020-21.

7. Other Waste Generation, if any: Details of any other waste generated during mining activity and its mitigation measures: The total waste generation in 2016-21 year proposed is 754875.00 MT of Overburden and 74929.50 MT Rejects. The O.B./waste material generated during the period of mining scheme is being dumped separately on the earmarked place in mining lease area. The area required for dumping will be 5000 sqm. The height of dump yard will be 8-10m. To prevent washout & stone rolling, the dump is provided with an all-round protective wall of rubble stone.

8. The project proponent submitted that total proposed production is 3, 00,932.5 TPA (ROM). Proposed production of Ball clay & Red ochre is 1, 49,852.50 TPA and OB: 1, 50,555 TPA. Whereas, according to the PFR, production capacity is 1, 50,000 TPA. Clarification is required regarding the production capacity.

9. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC (non-coal) meeting held during 15th to 17th February, 2022. The Member Secretary informed the Committee that the Project Proponent vide email dated 12.02.2022 informed regarding the absence of the project proponent due to some unavoidable circumstances. Based on the documents and information submitted by the project proponent on the Parivesh portal, the Committee noted that earlier the proposal was considered in the 13th EAC Meeting (Violation) held during 18-20th Sept., 2018 wherein the proposal was recommended for Terms of Reference for the production of Ball clay & Red ochre (1, 50,000 TPA). However, the project proponent submitted that the total proposed production is 3, 00,932.5 TPA (ROM) [Ball clay & Red ochre is 1, 49,852.50 TPA and OB: 1, 50,555 TPA] in the Mine lease area of 147.31 Ha. whereas, it was mentioned in the PFR that the total production capacity is 1, 50,000 TPA. Therefore, the Committee **deferred** the proposal for clarification regarding the production capacity of Ball clay & Red ochre.

2.4 Proposal for Environmental Clearance of M/s. Shiva Cement Ltd for mining of Limestone in Khatkurbahal (North) Block with production capacity of Limestone 1.6 MTPA and Mineral Reject 0.035 million TPA (ROM 1.635 million TPA), Top Soil 0.033 MTPA & Waste 3.875 MTPA (Total excavation - 5.543 MTPA) along with proposed crusher & screen with capacity of 800 TPH in the mine lease area of 156.43 ha, located at Villages Khatkurbahal & Phalsakani, Tehsil Kutra, District Sundargarh, Odisha – [File. No: J-11015/47/2020-IA-II(M), Proposal No: IA/OR/MIN/176862/2020; Consultant: JM EnviroNet Pvt. Ltd] - Reconsideration of EC

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s. Shiva Cement Ltd is for mining of Limestone in Khatkurbahal (North) Block with production capacity of Limestone 1.6 MTPA and Mineral Reject 0.035 million TPA (ROM 1.635 million TPA), Top Soil 0.033 MTPA & Waste 3.875 MTPA (Total excavation - 5.543 MTPA) along with proposed crusher & screen with capacity of 800 TPH in the mine lease area of 156.43 ha, located at Villages Khatkurbahal & Phalsakani, Tehsil Kutra, District Sundargarh, Odisha. The mine lease area is located between Latitude 22°16'45.31025" N to 22°17'10.12835" N and Longitude 84°27'36.13496" E to 84°29'18.22107" E. The mine lease area falls under the Survey of India Toposheet No: F45G7, F45G8, F45G11 & F45G12 and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. The Project Proponent has made an online application vide IA/OR/MIN/176862/2020 dated 13.11.2021 and submitted Form 2 and EIA report under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral Beneficiation and falls under Category "A" as the mining lease area is greater than 100ha and appraised at the Central level.

3. The proposal was earlier considered in the 42nd EAC (Non-Coal Mining) meeting held during 30th November – 3rd December, 2021, wherein the Committee noted that in the instant proposal while granting Terms of Reference vide F.No J-11015/47/2020-IA-II(M)

dated 19.11.2020 it was specifically mentioned in the Specific Terms of Reference Point (i) that “the transportation of mineral has to be carried out through conveyor belt and the installation of conveyor belt shall be completed before commencing the operations.” But during the meeting, Consultant/PP informed the Committee that the transportation will be carried out by road till the execution of OLBC. The Committee opined that this attracts to the deviation from already granted ToR dated 19.11.2020 for preparing EIA/EMP for the project, hence the Committee warned the consultant to ensure that such type of noncompliance should not be repeated in future. The Committee was of the view that no road transportation will be allowed and hence PP needs to revise the transportation plan accordingly. Therefore, the Committee deferred the proposal for want of additional information.

4. The Project Proponent vide Letter No SCL/North Block/Mine/EC/MoEF-2022-04 dated 31.01.2022 submitted the information on PARIVESH Portal. The proposal was reconsidered in the 46th EAC meeting held during 15th - 17th February, 2022 wherein the PP submitted the following:-

Point (i): The Project Proponent needs to revise the transportation plan proposing the transportation by Over Land Belt Conveyor (OLBC) instead of road as per Specific Condition no (i) of the ToR dated 19.11.2020. The plan should accommodate with the timeline for commencement of the OLBC. PP should give an undertaking that Environmental Clearance, if granted will be functional only after installing the OLBC.

Reply by PP: PP submitted that in compliance to the Specific Terms of Reference Point (i) of ToR letter dated 19.11.2020, M/s Shiva Cement Ltd will install 8.7 km long Over Land Belt Conveyor (OLBC). PP reported that it will take 2.5 years (30 months) to commission the OLBC and submitted the month wise implementation schedule of Over Land Belt Conveyor (OLBC). PP also submitted an undertaking vide letter dated 28.01.2022 that the “Environmental Clearance, if granted will be functional only after installing the Over Land Belt Conveyor (OLBC) for captive consumption of limestone”.

Point (ii): The Committee noted that during the meeting, the Project Proponent informed that there are two (2) old pits existing within the mine lease area. Hence, PP needs to submit a letter from the Department of Steel and Mines, Government of Odisha clarifying whether any illegal mining within the mine lease area has been carried out or not, and whether the same has been carried out by PP (M/s Shiva Cement Ltd) or not?

Reply by PP: PP submitted that the two old pits existing in the mine lease area were not created by M/s Shiva Cement Ltd. No illegal mining carried out by M/s Shiva Cement Ltd. PP also submitted the letter from the Office of the Deputy Director of Mines, Rourkela Circle vide Lr No. 11/Mines, dated 04.01.2022 stating that there are two old pits within the mining lease area. One pit has already been developed like a Pond and the other pit seems to be very old. Though outcrops are there, no blasting has carried out and both the pits seem to be trial pit made earlier before the Mining Block put to auction to the successful bidder M/s. Shiva Cement Ltd.

Point (iii): The Committee noted that Village Khatkurbahal falls within the lease area and Phalsakani Village is about ~300 m, SE. Hence, the Project Proponent needs to submit the mathematical modeling for anticipated ground vibration due to blasting. PP needs to provide the details of the nearest village/structure, nearest distance

from the blasting zone, quantity of explosives used, kg and PPV, mm/s. The results are to be compared with the limiting values prescribed by Director General of Mine Safety (DGMS).

Reply by PP: PP submitted that the mathematical modeling for anticipated ground vibration due to blasting has been carried out by Central Institute of Mining & Fuel Research (CSIR-CIMFR), Dhanbad during January 2022. PP also submitted that the deep hole controlled blasting was carried out at the present working mine. During the field study, a total of eight experimental blasts were conducted at different working benches of the mine with varying drilling patterns and charging pattern of holes. The total no of holes in the blasting round varied from 04 to 11 no.s and the depth of the hole varied between 3.6 and 5.7m. The total explosive charge in the blasting rounds varied from 79.23 kg to 200.10 kg. The distance of vibration monitoring point from the blasting site varied from 100 to 345m. A total of 36 ground vibration data were recorded at different vibration monitoring stations from the eight experimental blasts. The magnitude of the ground vibration varied from 0.539 to 7.07 mm/s. The highest magnitude of 7.07 mm/s was recorded at the distance of 100m from the blast and the maximum explosive charge and total explosive charge were 27.80 kg and 200.10 kg respectively. The air overpressure recorded from the experimental blasts varied from 103.5 to 33.7 dB (L). Since higher values of dominant frequencies i.e., >8 Hz were obtained in all the cases, the safe level of peak particle velocity (PPV) for the residential structures of nearby village has been taken as 10 mm/s as per the DGMS Standards. In Khatkurbahal North Block, the residential houses of the nearby villages are located within 300 m from the mining lease boundary in the Northern, Southern and Western side of the lease area. However, no residential houses are found within 500m in the Eastern side of the lease area. Some of the public roads are also passing though the lease area. Most of the houses in the surrounding villages are made of bricks and cement with single storey. The electric transmission lines and poles are also present all along the public road. Based on the numerical modeling and the experimental blast conducted at the existing mine, it was observed that the magnitude of ground vibration can be contained within 10 mm/s for the blasting zone of 100 to 300 m from the village houses/structures. Flyrock can also be controlled by using proper blast design patterns and muffling arrangements.

Point (iv): The Project Proponent needs to submit the map demarcating the mineralized and non-mineralized zone in the grazing land of 5.979ha. If grazing land is non-mineralized zone, PP should submit the plan for its protection and accessibility ensuring that no any activity will be carried out in the grazing land and if it's a mineralized zone, PP should showcase the plan for compensatory grazing land 4 times the area under grazing land.

Reply by PP: PP reported that 5.979ha grazing land falls within the mine lease area in which 3.403ha falls in mineralized zone and 2.577ha falls under non-mineralized area. Out of 3.403ha, 2.984ha will be covered under mining and remaining area will be no-mining area. PP submitted that as per Odisha Govt. Rules (Letter No. 25616/ R&DM, Bhubaneswar, dated 27-08-2014), equal extent of compensatory land will be provided in the same Village Khatkurbahal over an area of 3.294ha at a distance of 1.5 km from the mine lease area. PP also submitted that Rs. 5.17 Cr already allocated towards purchase and development of alternate grazing land. Further, PP submitted the measures to be taken for protection of grazing land in non-mineralized area as follows: (i) Proper fencing will be done surrounding the patches of grazing land to prevent cattle from going inside the working area, (ii) 7.5 m safety barrier will be left along the grazing land & no mining

activities will be done in the grazing land measuring 2.577ha in the non-mineralized area. Display board with 'no mining zone' will be prominently displayed. And (iii) Budget of Rs. 12 Lakhs [Rs. 8 Lakh towards fencing and Rs. 4 Lakh towards development such as grassing, plantation etc. (Recurring cost: Rs.2 Lakh/annum)] allocated for protection and development of grazing land. PP also submitted the map demarcating the mineralized and non-mineralized zone in the grazing land of 5.979ha and also the map showing the alternate grazing land located at about 1.5km, S from the mine lease area.

Point (v): The Project Proponent needs to clearly bring out the land use/land cover classification of the mine lease area of 156.43 ha along with the ownership of the land.

Reply by PP: PP reported that the total mining lease area is 156.43ha, out of which 113.969ha is Private land & 42.461 ha is Government land including 5.979ha of grazing land. Land use/Land cover classification of the mine lease area of 156.43 ha consists of Water body (2.129ha), Agriculture land (108.065ha), Roads (3.50ha), Vegetation/Plantation (1.52ha), Open scrub (35.862ha) and Human Settlement (5.354ha). PP also submitted the khasra wise land use classification of the mine lease area along with ownership certified by Chief Surveyor, Directorate of Mines, Odisha dated 29.05.2020.

Point (vi): The Project Proponent needs to submit the plan for waste management.

Reply by PP: PP reported that a total of 10.606 Million Ton (Clay: 0.405 Million Ton, OB/SB: 3.566 Million Ton, Dolomite: 6.635 Million Ton) of waste will be generated during plan period and Total 57.924 Million Ton (Clay: 6.885 Million Ton, OB/SB: 10.928 Million Ton, Dolomite: 40.111 Million Ton) of waste will be generated at the end of life of mine. PP submitted that the waste will be initially dumped in a non-mineralized area/barren area covering an area of 13.51ha, and later 17.183 million ton of waste will be backfilled in 14.845ha at the end of mine life. M/s Shiva Cement Ltd will approach the MoEF&CC for amendment in EC for inclusion of Dolomite in the EC/backfilling of Dolomite within 5 years.

Point (vii): The Project Proponent should submit an undertaking that the Dolomite excavated during mining of Limestone will be stacked separately on non-mineralized area within the lease area and shall not be used for any other purpose.

Reply by PP: PP reported that 6.635 Million Ton of dolomite during plan period and 40.111 Million Ton dolomite at conceptual stage will be generated. Dolomite will be stacked as dump in non-mineralized area and will not be used for any other purpose without obtaining prior permission from the competent authorities. PP also submitted an undertaking vide letter dated 17.01.2022 that the Dolomite excavated during mining of Limestone will be stacked separately on non-mineralized area within the lease area and shall not be used for any other purpose until the company obtains all necessary permissions from the concerned authorities.

Point (viii): The Project Proponent should explore the possibility for shifting to clean energy using electric equipment for cleaner production options to reduce the emission. The Project Proponent should submit the action plan to phase out the old equipment and switch over to electrically operated equipment's for ensuring sustainability of mining operations.

Reply by PP: PP submitted that they have initiated the pilot scale study for using electrical vehicles for transportation. PP has ordered 5 no.s of heavy duty EVS (55 tons) in one of the company's plants and the vehicles are expected to be delivered by March, 2022. Trials

of EVs in some mining units of Group companies are also underway. On the basis of successful outcome of the pilot scale studies and cost economy, PP plans to implement the use of EVs in this mine and will phase out diesel operated vehicles within a span of 10 years from the start of mining operations. PP reported that after successful outcome of pilot project during 1st five year, 20% of diesel vehicles will be replaced with 8-10 no.s of electric vehicles and in 2nd five year, 80% of diesel vehicles will be replaced with 10-12 no.s of electric vehicles. PP also submitted that the company will also look for commercial viability of using Hydrogen as a fuel and if within next 10 years, the technology is more technically and commercially viable than EV, the plan will be accordingly accustomed.

Point (ix): The Project Proponent needs to submit the declaration of the consultant for the Hydrogeology study carried out by NABET Accredited Ground Water Consultant Organization (GWCO).

Reply by PP: PP submitted that the Hydrogeology Study carried out by J.M EnviroNet Private Limited, NABET accredited Ground Water Consultant Organization vide Certificate No: NABET/GWCO/IA/GW018, the same is valid up to 8th Sep, 2026.

Point (x): The Project Proponent needs to submit all the analysis/testing reports of water, air, soil, noise, etc. using the MoEF&CC/NABL accredited laboratories.

Reply by PP: PP submitted the analysis/testing reports of water, air, soil, noise accredited by the NABL approved laboratory "JM EnviroLab Pvt. Ltd." (Certificate no TC-6821).

5. The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
30.09.2020	IA/OR/MIN/176862/2020	27 th - 28 th Oct, 2020	Terms of Reference for 1.6 MTPA (ROM) Limestone, Mineral Reject 0.035 MTPA, Topsoil 0.033 MTPA & Waste 3.875 MTPA (Total excavation – 5.543MTPA) and installation of crusher & screen of 800 TPH in the mine lease area of 156.43 ha	19.11.2020

6. Details of Mine lease:

S.no	Letter of Intent (LoI)	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Letter of Intent (LOI) for grant of mine lease through an e auction vide Lr no.9010/S&M, Bhubaneswar	18.11.2019	Limestone	50 years	Department of Steel & Mines, Government of Odisha	156.43

	and Lol is valid for a period of 3 years from the date of its issuance					
2	Corrigendum issued vide Lr No 1647/S&M, Bhubaneswar that LOI issued vide No. 9010/SM dtd 18.11.2019 may be corrected and read as area of Ha.156.43 computed from land schedule and as Ha.156.012 computed through DGPS Survey	14.02.2020	Limestone	-	Government of Odisha	-

7. Land use/Land Cover of the Mine Lease Area:

Private land	113.969 ha
Government land	42.461 ha (Including)
Grazing land (Govt Land)	5.979 ha
Total Mining lease area (MLA)	156.43 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No infrastructure is proposed outside the ML area
Details of grazing land falling in mineralized zone and non-mineralized zone and measures taken for protection of grazing land	PP reported that 5.979ha grazing land falls within the mine lease area in which 3.403ha falls in mineralized zone and 2.577ha falls under non-mineralized area. Out of 3.403ha, 2.984ha will be covered under mining and remaining area will be no-mining area. PP submitted that as per Odisha Govt. Rules (Letter No. 25616/ R&DM, Bhubaneswar, dated 27-08-2014), equal extent of compensatory land will be provided in the same Village Khatkurbahal over an area of 3.294ha at a distance of 1.5 km from the mine lease area. PP also submitted that Rs. 5.17 Cr already allocated towards purchase and development of alternate grazing land. Further, PP submitted the measures to be taken for protection of grazing land in non-mineralized area as follows: (i) Proper fencing will be done surrounding the patches of grazing land

	<p>to prevent cattle from going inside the working area, (ii) 7.5 m safety barrier will be left along the grazing land & no mining activities will be done in the grazing land measuring 2.577ha in the non-mineralized area. Display board with 'no mining zone' will be prominently displayed. And (iii) Budget of Rs. 12 Lakhs [Rs. 8 Lakh towards fencing and Rs. 4 Lakh towards development such as grassing, plantation etc. (Recurring cost: Rs.2 Lakh/annum)] allocated for protection and development of grazing land. PP also submitted the map demarcating the mineralized and non-mineralized zone in the grazing land of 5.979ha and also the map showing the alternate grazing land located at about 1.5km, S from the mine lease area.</p>
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8. Mining plan details:

Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	MP/A/02-ORI/BHU/2020-21
	Date	03.06.2020
	Validity	5 years from the date of lease execution
	Mine lease area	156.43 ha
	Mineral	Limestone
	Approved Capacity	1.6 Million Tonne
Additional information (if any)	PP submitted an undertaking vide letter dated 17.01.2022 that the Dolomite excavated during mining of Limestone will be stacked separately on non-mineralized area within the lease area and shall not be used for any other purpose until the company obtains all necessary permissions from the concerned authorities.	
Mining Parameters	Quantitative Description	
Method of mining	Opencast Fully Mechanized	
Total Geological Resources	49.91 Million Tonnes	
Mineable reserves	23.61 Million Tonnes	
Life of the Mine	~17 years	
Bench Height	6 m (10 mine benches)	
Bench Width	9 m	
Individual bench slope	80°	
Overall pit slope	45°	
Drilling/Blasting	<p>The drilling of blast holes will be done by rig mounted hydraulic rock drills. The drill diameter will be 115 mm and the machines will be operated by compressed air. The average rate of drilling will be about 12m/hr.</p> <p>Overburden as well as ore zone (consisting of limestone, and rejects) will be loosened by way of primary blasting with hole depth of 6.6 m, burden 2.5 m & powder factor of 6t/kg for ease in excavation by the excavators and</p>	

	oversized boulders will be broken by the deployment of rock breakers instead of secondary blasting.
RoM output size	-50 mm
Transportation details	The transport of Limestone will be done by 25 Ton capacity dumpers from mine faces to crusher (average distance b/w quarry & crushing unit is 1.5 km) and after crushing the limestone will be dispatched to the Cement plant initially by road (19.2 km) and later by OLBC (8.7 km). Installation of OLBC will take approximately two and a half years. A maximum of 0.8 MTPA material will be transported in first 3 years through road with total trips 214 (to & fro) & with 42 increase in PCU/hour.
Dumper's capacity	25 T
Mineral beneficiation	PP submitted that the instant proposal does not involve any wet mineral beneficiation process or any chemical mineral beneficiation process.
Over land belt conveyor (OLBC)	PP submitted that in compliance to the Specific Terms of Reference Point (i) of ToR letter dated 19.11.2020, M/s Shiva Cement Ltd will install 8.7 km long Over Land Belt Conveyor (OLBC). PP reported that it will take 2.5 years (30 months) to commission the OLBC and submitted the month wise implementation schedule of Over Land Belt Conveyor (OLBC). PP also submitted an undertaking vide letter dated 28.01.2022 that the "Environmental Clearance, if granted will be functional only after installing the Over Land Belt Conveyor (OLBC) for captive consumption of limestone".
Crusher	PP submitted that Limestone crusher with capacity of 800 TPH will be installed within the mine lease area to bring down the limestone to less than 80 mm to make it suitable for feeding to the grinding system.
Topsoil generation and management	Total of 0.06084 million cum (0.033 MT) of top soil will be generated during plan period. The topsoil will be stacked initially and used subsequently in the safety zone and back-filling area. An area of 5,000 m ² has been earmarked to accommodate 15,000 m ³ at a time at 3m average height. Total of 0.296886 million cum (0.534 MT) of top soil will be generated during conceptual stage. Topsoil will be used in plantation/greenbelt development to stabilize the backfilled area.
Waste generation and management	PP reported that a total of 10.606 Million Ton (Clay: 0.405 Million Ton, OB/SB: 3.566 Million Ton, Dolomite: 6.635 Million Ton) of waste will be generated during plan period and Total 57.924 Million Ton (Clay: 6.885 Million Ton, OB/SB: 10.928 Million Ton, Dolomite: 40.111 Million Ton) of waste will be generated at the end of life of mine. PP submitted that the waste will be initially dumped in a non-mineralized area/barren area covering an area of 13.51ha, and later 17.183 million ton of waste will be

	backfilled in 14.845ha at the end of mine life. M/s Shiva Cement Ltd will approach the MoEF&CC for amendment in EC for inclusion of Dolomite in the EC/backfilling of Dolomite within 5 years.
Habitation	The area under habitation is 5.354 ha having 48 houses which will not be disturbed.
Nallah	One nallah is passing in the NW direction in lease area. It flows from NW to NE and merge into Sankh River. 50 m safety barrier zone will be left along nala course.
Old Pit	There are 2 old pits existing within the mine lease area.
Village Road	<ul style="list-style-type: none"> i. There are 4 roads passing through the lease area. (Two tar roads & two kaccha roads) ii. <u>Tar Roads</u>: Both are passing through the central part of the lease area (one is connecting Village Elga to Village Kulenbahal and other one is connecting Village Khatkurbahal to village Patratoli) iii. <u>Kaccha Roads</u>: One is located in Eastern part of the lease area which is connecting village Khatkurbahal to village Patratoli & the other kaccha road is located in the central part of the lease area connecting both tar roads to each other. iv. 50 m wide corridor on either side of the roads will be left as a safety zone.
Two old pits	PP submitted the letter from the Office of the Deputy Director of Mines, Rourkela Circle vide Lr No. 11/Mines, dated 04.01.2022 stating that there are two old pits within the mining lease area. One pit has already been developed like a Pond and the other pit seems to be very old. Though outcrops are there, no blasting has carried out and both the pits seem to be trial pit made earlier before the Mining Block put to auction to the successful bidder M/s. Shiva Cement Ltd.
Water table	Pre-monsoon: 238-235 m AMSL (12-15 m bgl); Post-monsoon: 240-238 m AMSL (10-12 m bgl)
Ultimate Working Depth	190 m AMSL (60 m bgl)
Ground water intersection	Yes

9. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Direction
Nearest village	Khatkurbahal Phalsakani	Habitation falls within the lease area ~300 m, SE
Nearest Town / City	Rajgangpur	~12.5 km, SW
Nearest State/National Highway	SH-10	~5.5 km, SSW
Nearest Railway Station	Sonakhan Railway station	~12.9 km, SE
Nearest water bodies	Tambo Nala	~3.0 km, NE

	Seasonal Nala	Passing through the lease area
	Sankh River	~5.0 km, ENE

10. Water requirement:

Total water requirement	82.0 KLD		Drinking, Canteen, washing etc.	15.0 KLD
	Fresh water	72.5 KLD	Water sprinkling for dust suppression, wet drilling etc	59.0 KLD
	Treated water	9.5 KLD	Plantation	4.0 KLD
Workshop			4.0 KLD	
Source	Ground water and sump of existing mine and later from this mine sump as and when developed			
Permission	Application for ground water abstraction submitted vide application number 21-4/2599/OR/MIN/2020 dated: 26.10.2020 and same is under process. Application has been forwarded from CGWB to CGWA on 28.09.2021.			

11. The Project Proponent reported that there is no forest land involved in the lease area. In support of this, PP submitted the letter obtained from DFO, Sundargarh vide letter Memo No. 4824/4F (Misc)/2021 dated 29.09.2021. PP reported that the nearest Reserve Forest from the mine site are Banglapahari RF (2.0 km, NNW), Kadopani PF (9.5 km, NNW), Brahmani RF-7.5 km, NNW), Lampti RF (3.5 km NNW), Bhursulia RF (7.5 km, WNW), Jhandapaharh RF (5.5 km, ENE), RF (7.0 km, WSW), Kalijapathar RF (6.0 km WSW), PF (4.5 km, West), RF (3.5 km, WSW), Dahijira RF (3.5 km, SSW), Khatang RF (6.0 km, SSE), Gurhiali RF (9.0 km, SSE), Khatang RF (4.5 km SSE), Luhuraberni RF (9.0 km, SSE) and Jurajam PF (9.0 km, South) are found within 10 km radius of the mine lease. Further, PP submitted that there are no Wild Life Sanctuaries, National Parks, Elephant/Tiger Reserves (existing as well as proposed) within 10 km of the mine lease area. PP submitted the Letter regarding the same along with the authenticated location map obtained from DFO, Sundargarh vide letter dated 29.09.2021 and from the Office of the PCCF(Wild Life) & Chief Wildlife Warden vide Memo no. 10767/CWLW-FDWC-MISC-0034-2021 dated 05.11.2021.

12. The Project Proponent reported that there are no Schedule-I species identified in the 10 km radius of the study area and PP submitted the authenticated list of Flora and Fauna obtained from DFO, Sundargarh vide letter Memo No. 4824/4F (Misc)/2021 dated 29.09.2021.

13. Green belt/plantation details:

Proposed area for green belt/plantation	58.493 ha
Budget for green plant & plantation till the end of life of mine.	Rs. 3.28 Crore (Capital) Rs. 15 Lakh/annum (Recurring)
Budget for nursery	No Provision for Nursery
Saplings proposed	Karanja (<i>Pongamia glabra</i>), Mango (<i>Mangifera indica</i>), Sisu (<i>Dalbergia Latifolia</i>), Kadamba (<i>Neolamarckia cadamba</i>), Simaria (<i>Bursera simaruba</i>), etc.
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	3.41 ha (7.5 m safety Barrier Zone)

50 m safety zone of nallah, roads, electric lines	30.988 ha
500 m safety zones of nearest habitation villages	
Additional information (if any)	14.845 ha (backfilled area) & 9.25 ha (Worked out benches)

14. The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October to December, 2020 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)					
Period of baseline data collection			October to December, 2020		
Season (Summer / Pre-monsoon / Post-monsoon / Winter)			Post Monsoon season		
Period	Results of Baseline monitoring				
AAQ parameters at 11 locations	Pollutant	Min, µg/m ³	Max, µg/m ³	98 %ile, µg/m ³	Standard, µg/m ³
	PM2.5	20.4	58.7	57.9	60
	PM10	42.3	94.8	93.7	100
	SO ₂	5.0	12.7	12.5	80
	NO _x	11.9	27.6	27.3	80
AAQ modelling (Incremental GLC)	Pollutant	Baseline Concentration, µg/m ³	Incremental Concentration, µg/m ³	Total GLC, µg/m ³	Standard
	PM2.5	42.5	1.4	43.9	60
	PM10	72.1	3.4	75.5	100
	SO ₂	9.0	1.8	10.8	80
	NO _x	16.6	0.4	17.0	80
Noise level at 11 locations	Day Time: 48.9 to 66.2 Leq dB (A) Night Time: 40.9 to 59.5 Leq dB (A)				
Surface water quality at 7 locations	pH varied from 6.94 to 7.55 indicating slightly alkaline. The colour and turbidity within the permissible range and odour was found agreeable at all the locations. Total hardness (40 to 225 mg/l), Total dissolved solids (66 to 314 mg/l), Alkalinity (44.78 to 179.1 mg/l) and conductivity (105 to 552 mg/l) were found to be within the limits. BOD varied from 1.8 to 3.6 mg/l & COD varied from 7.6 to 16.8 mg/l indicating that water is clear.				
Ground water quality at 8 locations	pH varied from 6.88 to 7.58. Total hardness varied from 62 mg/l to 295 mg/l. TDS varied from 97 mg/l to 384 mg/l. The water samples contain, chloride varied from 7.39 to 87.4 mg/l, SO ₄ varies from BDL (DL 1.0 mg/l) to 32.4 mg/l, Ca from 10.02 to 78.16 mg/l, Mg varies from 7.29 to 19.44 mg/l. The ground water /drinking water samples were collected from 8 locations, found to be potable.				

Soil quality at 8 locations	Soil samples exhibits brown and blackish which indicates good fertility and presence of organic matter in the soil samples. The texture of the soil sample found to be loam, sandy loam and sandy clay loam. pH ranged from 4.55 to 7.12 which is slightly alkaline. All the essential nutrients were observed to be present in a higher amount than the other micro nutrient and macro nutrient.
Traffic study	About 5333 TPD (Peak) of Limestone will be transported to the cement plant (after crushing) located at a distance of ~19.2 km by road through 25 tonne capacity tippers. Increase in PCU's per hour at normative will be 42 and at peak will be 81.
Ground vibration carried out by Central Institute of Mining & Fuel Research (CSIR-CIMFR), Dhanbad during January 2022	PP submitted that the mathematical modeling for anticipated ground vibration due to blasting has been carried out by Central Institute of Mining & Fuel Research (CSIR-CIMFR), Dhanbad. PP also submitted that the deep hole controlled blasting was carried out at the present working mine. During the field study, a total of eight experimental blasts were conducted at different working benches of the mine with varying drilling patterns and charging pattern of holes. The total no of holes in the blasting round varied from 04 to 11 no.s and the depth of the hole varied between 3.6 and 5.7m. The total explosive charge in the blasting rounds varied from 79.23 kg to 200.10 kg. The distance of vibration monitoring point from the blasting site varied from 100 to 345m. A total of 36 ground vibration data were recorded at different vibration monitoring stations from the eight experimental blasts. The magnitude of the ground vibration varied from 0.539 to 7.07 mm/s. The highest magnitude of 7.07 mm/s was recorded at the distance of 100m from the blast and the maximum explosive charge and total explosive charge were 27.80 kg and 200.10 kg respectively. The air overpressure recorded from the experimental blasts varied from 103.5 to 33.7 dB (L). Since higher values of dominant frequencies i.e., >8 Hz were obtained in all the cases, the safe level of peak particle velocity (PPV) for the residential structures of nearby village has been taken as 10 mm/s as per the DGMS Standards. In Khatkurbahal North Block, the residential houses of the nearby villages are located within 300 m from the mining lease boundary in the Northern, Southern and Western side of the lease area. However, no residential houses are found within 500m in the Eastern side of the lease area. Some of the public roads are also passing though the lease area. Most of the houses in the surrounding villages are made of bricks and cement with single storey. The electric transmission lines and poles are also present all along the public road. Based on the numerical modeling and the experimental blast conducted at the existing mine, it was observed that the magnitude of ground vibration can be contained within 10 mm/s for the blasting zone of 100 to 300 m from the village houses/structures. Flyrock can also be controlled by using proper blast design patterns and muffling arrangements.

15. Public Hearing (PH) Details

Advertisement for PH with date	14.07.2021 (Times of India and Dharitri)
Date of PH	24.08.2021
Venue	Behind Jagannath Temple, Khatkurbahal Village under Kutra Block of District Sundergarh, Odisha
Chaired by	<ol style="list-style-type: none"> 1. Shri Biswajit Mohapatra Additional District Magistrate, Sundargarh 2. Shri Dr. P.K. Mohapatra, Regional Officer, Rourkela, State Pollution Control Board, Odisha
Main issues raised during PH	Major issues were related to road construction, school bus, education facility, school construction, drinking water, health care facility, R&R etc
Budget proposed for addressing issues raised during PH	<p>PP allocated combined budget for both mine (Existing 72.439 ha & Proposed 156.43 ha) i.e., Rs. 7.77 Crore budget. In which Rs 2.3 Crore is allocated for Existing mine and Rs 5.47 Crore is for Proposed Mine.</p> <p>Rs 5.47 Crore- Capital Rs 0.2 Crore – Recurring</p>
Additional information (if any)	PP submitted that in addition to this, Company has a proposal of Construction of Skill Development Centre and a 20-bed hospital near its cement plant (Telighan) with the amount of Rs. 1.5 Crore and Rs. 3.0 Crore respectively. This amount will be spent in issues raised during public hearing of cement plant.

16. The Project Proponent submitted that proposed mine area is 156.43 ha, out of which 113.969 ha is Private Land & 42.461 ha is Government land. Out of total 42.461 ha Government Land, 5.979 ha is Grazing Land. As per the Khasra details there are 201 PAFs involved in the lease area in which 48 PAFs having structures/houses within lease area which will not be displaced due to the mining activity. Since the part of project site falls in a scheduled area, the land will be acquired by the state government and then the same will be leased out to M/s Shiva Cement Limited as per the provisions of Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016. Letter for acquisition of entire land of 156.43 ha has been obtained vide letter no. 8985/SM, Bhubaneshwar, the SM-MC2-MMCA-0017-2020 Dated: 19.10.2020. PP also submitted that although land will be acquired through State Government, company has also allocated budget of Rs. 104.418 Crore towards R & R.

17. The Project Proponent submitted that they have initiated the pilot scale study for using electrical vehicles for transportation. PP has ordered 5 no.s of heavy duty EVS (55 tons) in one of the company's plants and the vehicles are expected to be delivered by March, 2022. Trials of EVs in some mining units of Group companies are also underway. On the basis of successful outcome of the pilot scale studies and cost economy, PP plans to implement the use of EVs in this mine and will phase out diesel operated vehicles within a span of 10 years from the start of mining operations. PP reported that after successful outcome of pilot project during 1st five year, 20% of diesel vehicles will be replaced with 8-

10 no.s of electric vehicles and in 2nd five year, 80% of diesel vehicles will be replaced with 10-12 no.s of electric vehicles. PP also submitted that the company will also look for commercial viability of using Hydrogen as a fuel and if within next 10 years, the technology is more technically and commercially viable than EV, the plan will be accordingly accustomed.

18. Court case details

Court Case	There is no any Court Cases pending against the project and/or land in which the project is proposed to be set up
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19. Affidavit/Undertaking details

Affidavit in a Non-Judicial Stamp paper of Rs 100 bearing L 557488 dated 09.09.2020	The Company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
PP submitted an undertaking dated 16.10.2021	The conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide letter no. J-11015/47/2020-IA.II (M) dated 19.11.2020 have been complied with, and the data submitted and information presented in this report are factually correct.
Consultant submitted an Undertaking dated 11.11.2021	The conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide letter no. J-11015/47/2020-IA.II (M) dated 19.11.2020 have been complied as per data/details provided by Project Proponent & as per Mining Plan approved by IBM, Bhubaneswar and the data submitted are factually correct.
Declaration of the consultant for the Hydrogeology study carried out by NABET Accredited Ground Water Consultant Organization (GWCO)	PP submitted that the Hydrogeology Study carried out by J.M EnviroNet Private Limited, NABET accredited Ground Water Consultant Organization vide Certificate No: NABET/GWCO/IA/GW018, the same is valid up to 8 th Sep, 2026.
Plagiarism Certificate checked on 13.11.2021	The Head of the Accredited Consultant Organization/ Authorized person certified that this EIA Report has been evaluated by using online in-house software viz. small tools https://smalltools.com/plagiarism-checker/ . The report produced has been analyzed by the system and based on it, I certify that the EIA Report produce in accordance with good scientific practice.

20. Details of the EMP

S.	Particulars	Capital	Recurring
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No		Cost (Rs. In Lacs)	Cost/Annum (Rs. In Lacs)
A.	Air Quality Monitoring and Management		
i.	Mitigative Measures		
1	Permanent water sprinkling arrangements for main haulage road	10	5
2	2 water tankers for water sprinkling in other roads and mining areas	30	6
3	Motor Grader & Soil Compactor for haul road maintenance	45	5
4	Bag filter installation at Crusher	65	10
5	Water Sprinkler system at crusher hopper and transfer point	5	2
6	Plantation along nallah, village road and around the habitation, near office, backfilled area with total 99160 no. of saplings from 1st year onwards till the life of mine.	281	10
7	Green belt around 7.5 m periphery covering an area of 3.41 ha (No. of saplings: 6138)	47	5
ii	Monitoring		
1	1 No of CAAQMS in downwind direction- within mine site and display board at Mines Main Gate	3	3.5
2	Ambient Air Quality monitoring - monthly at 8 locations- within core & buffer zone	50	10
3	Fugitive dust emission monitoring (3 locations monthly) Near Mine office, Near working pit, Near Crusher hopper		1
4	Personal Dust Monitoring	2	0.5
Sub Total A.		538	58
B.	Water Quality Monitoring and Management		
i.	Mitigative Measures		
1	Garland Drain around waste dump (L*W*D = 420 m x 1 m x 1 m)	5	0.25
2	Retaining Wall around waste dump (L*W*H = 210 m x 1 m x 1.5 m)	6	0.25
3	Channelized Catch Drains	8	0.5
4	3 nos. of Settling Tank / Sedimentation Pond (Length*Width*Depth =20 m x 5 m x 3 m)	10	0.5
5	Construction of Protective Bunds along the water reservoir	3	0.25
6	Construction of 3 nos. of Check Dams in and around the area of mine boundary and its annual maintenance	25	1.5
ii	Monitoring		
1	Installation of 1 Piezometer along the lease periphery in the Premises	1.5	0.5
2	flow measurement and Surface Water & Ground water quality analysis (4 locations * 4 times in a year)	-	0.8

3	Raw water analysis (PZ wells) (4 locations * 2 times in a year)	-	0.2
4	Workshop Waste Water Quality Analysis (monthly) as well as maintenance of oil-water separators	-	0.25
Sub Total B		58.5	5
C.	Others		
1	Procurement of the Blast Vibration Measuring Instrument & Noise level meter and yearly calibration	5	1
2	Peak Particle Velocity Monitoring for nearest habitation i.e. Khatkurbahal, Kulenbahal, Phalsakani	8	1.5
3	Noise Monitoring (4 locations * monthly frequency)		1
4	Personal Noise Monitoring		1
5.	Digital mapping of entire mine area once in three years (Rs. 3 Lacs once in 3 years)	-	1
6.	Wildlife conservation activities in consultation with local DFO (digging of water pits, plantation of native species in forest area, awareness programmes for community (Total budget Rds. 50 Lakh for 10 years or Rs 5 lakh per year)	-	5
Sub Total C		13	10.5
Grand Total (A+B+C)		609.5	73.5
D.	Budget for issues raised during Public Hearing		
1.	Public Hearing Action Plan for three years	547	20
Sub Total D		547	20
Grand Total (A+B+C+D)		1156.5 says 1157	93.5 says 94

21. Details of project cost and employment:

Particulars	Budget (Rs. In Crore)
Capital Cost for Environment Protection	6.10
Budget for addressing the Public Hearing issues	5.47
Total Cost for EMP	11.57
Recurring Cost for EMP	1.0
Project Cost	160
Employment	306 persons

22. Observation and Recommendation of the Committee:

The proposal for Environmental Clearance was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th - 17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Environmental Clearance for M/s. Shiva Cement Ltd for mining of Limestone in Khatkurbahal (North) Block with production capacity of Limestone 1.6 MTPA and Mineral Reject 0.035 million TPA (ROM 1.635 million TPA), Top Soil 0.033 MTPA & Waste 3.875 MTPA (Total excavation - 5.543 MTPA) along with proposed crusher &

screen with capacity of 800 TPH in the mine lease area of 156.43 ha, located at Villages Khatkurbahal & Phalsakani, Tehsil Kutra, District Sundargarh, Odisha subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects:

- i. The Environmental Clearance (EC) will be functional only after the execution of mine lease deed.
- ii. The transportation of the mineral should be carried out through the over land conveyor belt only.
- iii. Grazing land falling in the mineralized zone needs to be diverted and developed at Village Khatkurbahal as per extant rules. Access to grazing land in the mine lease area shall not be disturbed and protected by way of developing plantation in such a way to minimize the risk to cattle and people.
- iv. Movement of the material within the mine lease area should be preferably done with electric vehicles as proposed by the PP.
- v. A detailed action plan needs to be prepared for deploying EMP funds for addressing public hearing concerns and action taken report on work done and expenditure incurred under capital and recurring expenses to be submitted annually to the Integrated Regional Office.
- vi. The budget of Rs 5.47 Cr to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes.
- vii. The Project Proponent shall carry out the plantation with the survival rate of not less than 90% by planting 10 ft seedlings. Causalities should be replaced with new saplings every year and be counted separately other than the total proposed saplings. PP shall complete the peripheral plantation within 6 months from the start of mining operations. PP shall undertake the progressive bench plantation up to HFL for eco restoration of water bodies. PP shall also submit the details such as photographs (before & after with geo-location date & time), number of species planted, density of plantation and survival rate in the EC compliance report.
- viii. The Project Proponent should consult with the Forest Department for demarcation for removal of 184 no.s of trees in the mine lease area and should explore the possibility of replanting with the indigenous species.
- ix. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly.

- x. The Dolomite excavated during mining of Limestone to be stacked separately on non-mineralized area within the lease area and should not be utilized for any other purpose.
- xi. The Project Proponent applied for the both 1(a) Mining of Minerals and 2(b) Mineral beneficiation and submitted that the instant proposal does not involve any wet mineral beneficiation process or any chemical mineral beneficiation process. Hence, the Project Proponent shall ensure that the no mineral beneficiation shall be carried out without the prior permission from the MoEF&CC.
- xii. The Project Proponent should implement the Rehabilitation of project affected families (PAFs) and payment of compensation to PAFs as per the policy and guidelines of the Central/State Government, as provided under the law.
- xiii. The Project Proponent shall follow the preventive measures prescribed by the CSIR-CIMFR to control the blast induced ground vibration and its monitoring data near the receptors and its implementation status should be submitted to the Ministry's Integrated Regional Office every 6 months.
- xiv. The Project Proponent shall strictly follow the mitigation measures provided in MoEF&CC Office Memorandum No. Z-11013/57/2014-IA.II(M), dated 29th October, 2014.
- xv. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers.
- xvi. The Project Proponent should obtain the permission from the Competent Authority for withdrawal of ground water and abstraction before commencing the mining operations.

2.5 Proposal for extension of validity of EC dated 17.04.2015 of M/s SAIL for Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilitates at Iron Ore Complex (IOC) in an area of 19 ha, located at Dalli-Rajhara, District-Balod, Chhattisgarh – [File. No: J-11015/437/2012-IA.II(M), Proposal No: IA/CG/MIN/253108/2022] - Extension of Validity of EC

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s SAIL is for extension of validity of EC dated 17.04.2015 for Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilitates at Iron Ore Complex (IOC) in an area of 19 ha, located at Dalli-Rajhara, District-Balod, Chhattisgarh. The area is covered under Survey of India Toposheet No: 64 H/2 and lies between Latitude from 20°34'40.651"N to 20°34'56.671"N and Longitude from 81°02'09.043"E to 81°02'36.637"E.

2. M/s SAIL has made an online application vide proposal no: IA/CG/MIN/253108/2022 dated 25.01.2022 and submitted Form 6 under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at the Central level.

3. The Project Proponent obtained Environmental Clearance (EC) vide Lr F.No: J-11015/437/2012-IA.II(M) dated 17.04.2015 for Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilitates at Iron Ore Complex (IOC) in an area of 19 ha, located at Dalli-Rajhara, District-Balod, Chhattisgarh and EC is valid upto 16.04.2022.

4. Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilitates in the 19 ha, acquired land of Bhilai Steel Plant and the total area is outside the mining lease. The area acquired by the Bhilai Steel Plant is a non-agricultural waste land and non-forest revenue land.

5. Now, the Project Proponent requested for extension of validity of EC dated 17.04.2015 for another period of 3 years i.e., upto 16.04.2025. PP submitted that M/s Bhilai Steel Plant has made two attempts for setting up of pellet plant on turnkey mode in the year 2015 and 2017 wherein the tender was cancelled/called-off due to depressed financial condition of the company. As an interim measure, PP decided to set up a Slime beneficiation plant (Package -1) and the commissioning of the plant was done on 08.11.2019 and the plant has achieved the desired production level with desired output. The pelletability of beneficiated iron ore slime (BIOS) was also established upto the production level by converting the BIOS into pellets at the pellet manufacturer. PP also submitted that to produce hot metal of 7.0 MTPA in Bhilai Steel Plant, the requirement of Iron ore shall be 12.0 million tonne. The remaining iron ore reserve in other leases of M/s SAIL (Dalli Rajhara group) is approx. 70 million tonne in which 50 million tonne is mineable. The iron ore in these leases have higher silica and alumina content (both up to 11%). The present rate of supply of iron ore reserves is 8.0 MTPA from leases of Dalli Rajhara. In these circumstances, supply of pellet @ 1.0 MTPA shall help to some extent to sustain the hot metal production level of 7.0 MTPA as well as utilization of low-grade iron ore slime which shall help in reducing the environment degradation and also serve the purpose of mineral conservation. In view of shortage of iron ore in form of lumps & fines and to effectively utilize the available ore resources, Bhilai Steel Plant again floated a tender for setting up of pellet plant on BOO basis on 02.01.2022. The envisaged construction period is 2 years from the date of award of contract. As the stipulated construction period falls within the purview of the existing EC which will expire on 16.04.2022, PP requested for extension of validity of EC by another three (3) years i.e., upto 16.04.2025.

6. **Observation and Recommendation of the Committee:**

The proposal for extension of validity of Environmental Clearance was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th - 17th February, 2022. During the EAC meeting, the Committee noted that for the instant proposal, the Ministry issued Environmental Clearance (EC) vide Lr F.No: J-11015/437/2012-IA.II(M) dated 17.04.2015 for Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilities at Iron Ore Complex (IOC) in an area of 19 ha, located at Dalli-Rajhara, District-Balod, Chhattisgarh and EC is valid upto 16.04.2022. The Committee also noted that the Pellet Plant (1.0 MTPA) with upstream slime beneficiation facilities in the area of 19 ha is outside the mining lease area which is standalone and is covered under category of 2(b) of EIA notification, 2006 and hence the EAC (Non-Coal Mining) cannot appraise the instant project proposal. The Committee opined that the Industry-1 shall review the instant proposal for extension of validity of Environmental Clearance (EC) for Pellet Plant with upstream slime beneficiation facilities in the area of 19 ha which is outside the mining lease area. Therefore, the Committee **returned the proposal in present form.**

2.6 Proposal for Terms of Reference of M/s Chhattisgarh Mineral Development Corporation Ltd for mining of Bauxite with production capacity of 0.85 MTPA (ROM) & OB-0.25 MTPA with total excavation of 1.1 MTPA in the mine lease area of 179.595 Ha, located at Village(S) Uranga & Barima; Tehsil – Mainpat, District - Surguja, Chhattisgarh – [File. No: IA-J-11015/9/2022-IA-II(NCM), Proposal No: IA/CG/MIN/253231/2022; Consultant: Srushti Seva Private Limited] - Terms of Reference (ToR)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s Chhattisgarh Mineral Development Corporation Ltd is for mining of Bauxite with production capacity of 0.85 MTPA (ROM) & OB-0.25 MTPA with total excavation of 1.1 MTPA in the mine lease area of 179.595 Ha, located at Village(S) Uranga & Barima; Tehsil – Mainpat, District - Surguja, Chhattisgarh. The mine lease area is located between Latitude 22°45'4.89"N to 22°46'18.58"N and Longitude 83°18'49.55"E to 83°20'38.92"E. The mine lease area falls under the Survey of India Toposheet No: 64 N/5. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. M/s Chhattisgarh Mineral Development Corporation Ltd has made an online application vide IA/CG/MIN/253231/2022 dated 25.01.2022 and submitted Form 1 and PFR under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 100ha and appraised at the Central level.

3. Details of Mine lease:

S.no	Letter of Intent	Date of the	Name of	Period	Granted by	Mine
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		grant	the Mineral	of Grant		lease area in Ha
1	Letter of Intent for grant of mining for a period of 50 years vide Lr No F 3- 7/2021/12	30.09.2021	Bauxite	50 years	Government of Chhattisgarh	179.595 ha

4. Land use/Land Cover of the Mine Lease Area:

Private land	168.124 ha
Government land	11.471 ha
Total Mining lease area (MLA)	179.595 ha

5. The Project Proponent submitted that the Mining plan has been submitted to Indian Bureau of Mines (IBM) for approval.

6. The Project Proponent submitted that the method of mining will be opencast method with drilling, blasting, manual sizing-sorting and transportation by excavator-dumper combination. PP reported that the Geological reserves is 10,717,590 Tonnes and Mineable reserves is 2,895,750 Tonnes. The anticipated life of the mine will be about 12 years and will be increased after the proposed exploration is completed. PP submitted that 11 No.s of dumper of 12 Tons capacity will be utilized for transportation. PP reported that the maximum depth of working will be upto 17m. During the plan period 39,993 cu.m of intercalated waste is proposed to be handled, which will be utilized for backfilling the pit and about 4,31,431 ton sub grade mineral will be generated which will be stored in an area of 19,232 sq.m within the mined out pit. There is no proposal for blending of mineral reject with bauxite ore. The mineral reject will be stacked separately for future use. PP submitted that there is no proposal for beneficiation of mineral except dry crushing and screening. The excavated land after the extraction of entire bauxite ore will be backfilled through generated waste and OB in same manner. PP also submitted that out of the total pit area of 133.470 Ha, about 105.470 Ha area will be backfilled and reclaimed and about 25.0 Ha area will be used as sub-grade stock and about 3.00 Ha area will be utilized as a water recharge pond and 46.125 Ha area will remain as a virgin land.

7. Nearest village / town/ highway/railway station / water bodies:

Particulars	Details	Distance & Direction
Nearest Village	Uranga	Adjacent, E
Nearest Town	Mainpat	6.3 km, NW
Nearest Highway	NH-43	13.8 km, E
Nearest Railway station	Ambikapur	65.0 km, NW
Nearest water bodies	Mangarda Nala	1.5 km, NW
	Sangud nadi	3.0 km, SW
	Check dam on Sangud nadi	3.6 km, SW

8. Water requirement

Total water requirement (KLD)	25.0 KLD	Dust suppression	15.0 KLD
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		Greenbelt	5.0 KLD
		Domestic	5.0 KLD
Source	Ground water		

9. The Project Proponent reported that no forest land is involved in the mine lease area. PP reported that there are no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger/Elephant Reserves within the 10km radius of the study area. Further, PP reported that the Kumarta RF is found adjoining to the mine lease area and Barima RF at a distance of about 1.3 km, North from the mine lease area.

10. The Project Proponent submitted that the plantation in the core zone will not be carried out as the area is agricultural land, and will be returned to the respective owners after backfilling as per the Government land procurement act. However, equivalent area will be brought under plantation in nearby villages with consultation of Gram Panchayat.

11. The Project Proponent reported that no rehabilitation and resettlement plan is envisaged as there is no habitation within the mine lease area.

12. The Project Proponent submitted that there is no any litigation pending against the project and/or land in which the project is proposed to be set up.

13. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs.1.273 Cr
Employment	108 Persons

14. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Terms of Reference (ToR) for M/s Chhattisgarh Mineral Development Corporation Ltd for mining of Bauxite with production capacity of 0.85 MTPA (ROM) & OB-0.25 MTPA with total excavation of 1.1 MTPA in the mine lease area of 179.595 Ha, located at Village(S) Uranga & Barima; Tehsil – Mainpat, District - Surguja, Chhattisgarh for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects:-

- i. The Committee noted that since the valley is found on the southern side of the mine lease area, the PP must bring out the measures to be taken for protection of valley and its ecosystem in the EIA/EMP report.
- ii. The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.

- iii. Since the agriculture is going to be done in patches, 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. PP should also submit the action plan for crop compensation along with the budget.
- iv. The Committee noted that the approach road joining the highway passing through the villages said to be 12m wide blacktopped. However, PP needs to carry out a detailed carrying capacity of this approach road and should incorporate in the EIA/EMP report.
- v. Since the two villages namely Uranga and Barima are found close to the proximity of the mine lease area on the eastern side, monitoring station in these villages should be exhaustive for creation of baseline data and EMP must include effective measures to protect the villages and villagers from dust, noise and vibration.
- vi. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution by considering all the mining activity.
- vii. During the EAC meeting, PP informed that the mined-out area will be backfilled and returned for the use of agriculture. Hence, PP needs to mention the quantity of material available for backfilling with proper mass balance in the EIA report.
- viii. The Project Proponent should also submit the map demarcating the mineralized and non-mineralized zone in the mine lease area.
- ix. The Project Proponent submitted that mobile crushing and screening plant is involved in this instant proposal and the capacity and no.s of the same was not mentioned by the PP. Hence, the PP should include the capacity and no.s of mobile crushing and screening plant proposal in the public hearing and accordingly should prepare the EIA/EMP report covering its impact and mitigation measures proposed.
- x. 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 proper separate budget for the concerns of the local people in terms of health care facilities for COVID, betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets, infrastructure, and environment protection.
- xi. The Project Proponent should submit the detailed plantation/greenbelt plan in tabular format (year wise for entire life of mine) with proper capital and recurring cost.
- xii. The Project Proponent should submit list of Schedule – I species present in the lease area authenticated by PCCF and the status of National Park/Sanctuary, Biosphere Reserve/Tiger Reserve/Elephant Reserve/any other Reserve, Habitat for migratory birds, Corridor for animals within 10 km of the lease area. PP should also submit the letter from the Competent Authority that no forest land is involved in the mine lease area.

- xiii. The Project Proponent needs to submit the Affidavit as per Ministry's O.M No 3-50/2017-IA.II(M) dated 30.05.2018.

Day 3: 17th February, 2022 (Thursday)

3.1 Proposal for Environmental Clearance of M/s Hindalco Industries Ltd for mining of Bauxite in Maliparbat Bauxite mine with production capacity of 0.6 MTPA of Bauxite in the mine lease area of 268.110 ha, located at Aligaon, Kankaramba, Sorishpadar Village, Pottangi Tehsil, Koraput District, Odisha – [File. No: J-11015/79/2020-IA.II(M), Proposal No: IA/OR/MIN/250275/2020; Consultant: Vimta Labs Ltd] - Environmental Clearance (Violation)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s Hindalco Industries Ltd is for mining of Bauxite in Maliparbat Bauxite mine with production capacity of 0.6 MTPA of Bauxite in the mine lease area of 268.110 ha, located at Aligaon, Kankaramba, Sorishpadar Village, Pottangi Tehsil, Koraput District, Odisha. The mine lease area is located between Latitude 18°39'32.810"N to 18°40'28.384"N and Longitude 82°53'22.815"E to 82°55'50.244"E. The mine lease area falls within the Survey of India Toposheet Nos. 65J/13, J/14 and 65 N/2 and falls in Seismic zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. M/s Hindalco Industries Ltd has made an online application vide proposal no. IA/OR/MIN/250275/2020 dated 27.01.2022 and submitted Form-2 and EIA report under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category "A" of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 100 ha and appraised at the Central level.

3. The Ministry of Environment, Forest and Climate Change vide Lr No F.No J-11015/79/2020-IA.II(M) dated 08.02.2021 requested the Secretary, Department of Forest & Environment, Govt. of Odisha to initiate action under the provisions of section 19 of the Environment (Protection) Act, 1986 against the project.

4. **The details of the previous Environmental Clearance (EC) are furnished as below:**

Date of application	Proposal No	Consideration	Details	Date of accord
12.11.2005	IA/OR/MIN/162406/2005	-	Environmental Clearance for Maliparbat Bauxite Mining project of M/s Hindalco Industries Limited for production capacity of 0.6 MTPA of bauxite ore by	07.09.2006

			opencast mechanized method involving total lease area of 268.11ha under the provisions of the EIA Notification, 1994.	
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5. The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
28.12.2020	IA/OR/MIN/189627/2020	11 th - 13 th January, 2021	Terms of Reference (ToR) for undertaking detailed EIA/EMP study for a production capacity of 0.6 MTPA of Bauxite, over an ML area of 268.110 Ha.	08.02.2021

6. Details of Mine lease:

S.no	Prospecting License/Letter of Intent/Grant of mine lease order	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Grant of mine lease for a period of 20 years vide Lr No. 5480/ III(BX) SM.16/ 2003/SM, Bhubaneswar	19.06.2007	Bauxite	20 years	Department of Steel & Mines, Government of Orissa	268.11 ha

7. Details of executed Mine leases:

S.no	Date of grant of Lease execution	Period of Grant		Details
		From	To	
1	Date of entering into original lease deed.	08.11.2007	07.11.2027	Mining lease deed executed on 08.11.2007 between the Governor of Orissa and M/s Hindalco Industries Limited and registered on 14.11.2007 for the term of 20 years.

8. Land use/Land Cover of the Mine Lease Area:

Private land	Nil
Government land	268.11 ha
Total Mining lease area (MLA)	268.11 ha
Private land for crusher, workshop & other infrastructure outside the MLA	Nil

9. Details of Mine Plan:

Modification of Review of Mining Plan along with the Progressive Mine Closure Plan approved by the Indian Bureau of Mines (IBM), Bhubaneswar	Letter No.	MPM/A/06-ORI/BHU/2021-22
	Date	04.08.2021
	Validity	2021-22 to 2022-23
	Mineral	Bauxite
	Mine lease area	268.110 ha
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mechanized method	
Total Geological Resource/Reserves	15.06 MT	
Mineable Reserves	14.74 MT	
Life of Mine	25 years	
Bench Height	6 m	
Bench Width	9 m	
Individual bench slope	75°	
Overall pit slope	45°	
Transportation details	PP submitted that the Tippers of 10 Ton / matching capacity will be utilized for transportation of ore to the stacking site and overburden / waste to the dumping site. The ore produced at the ML area will be transported to the Rail siding at Dumuriput located about 25 km by road using 18 Ton/matching capacity trucks. Depending on location of end use plant, bauxite will be transported either using road /road cum railway.	
RoM output size	1 (m ³) of Bauxite : 0.039 (m ³) OB	
Topsoil	PP reported that total of 10,300 m ³ of topsoil will be generated during plan period which will be stacked over an area of 5,150m ² in one terrace of 2m average height and 3m maximum height. However, topsoil will be utilized for rehabilitation of waste dump and mined out area con-currently.	
OB/SB/IB	PP reported that 21,500 m ³ OB /Aluminous laterite is likely to be generated during plan period. Out of these, 11,800 m ³ OB will be systematically / scientifically stored / dumped temporarily over an area of 2,950 m ² or 0.295 ha in one terrace of 4m average height and 7m maximum height in a retreating method by extending the SW part of existing Dump-1 towards NE part. Remaining 9,700 m ³ OB generated during 2022-23 will be systematically/ scientifically stored/dumped in the mined out area over 4,850 m ² with 2 m average thick filling after exhaust of bauxite.	
Mineral reject	PP reported that total of 49,456 m ³ mineral reject / sub-grade bauxite is likely to be generated during plan period. Out of these, 40 % of mineral reject / sub-grade will be blended and remaining 60 % will be stacked in a forwarding method over an area of 8,891 m ² or 0.889 ha in one terrace of 3 m average height and 5 m maximum height.	
Details of existing dump	PP submitted that one (1) small dump (D-1) exists on the	

	mineralized area within lease area spread over an area of 1.42 hectares with dimension of 355m x 40m
Details of existing stack	PP reported that two sub-grade stacks exist in the lease area spread over an area of 8,400 m ² or in 0.840 hectare. A total of 6,141 Ton quantity is stacked.
Mineral Beneficiation	PP submitted that there is no beneficiation or processing of ROM is proposed as the 91% of ROM is of usable grade while only 9% is sub-grade ore (which will also be utilized after proper blending with usable grade).
Crusher	Mobile crushers of 200 TPH capacity will be installed within the lease area for crushing the run-off mine bauxite ore.
Conceptual Land Use	PP submitted that at the end of conceptual period, out of total mine lease area of 268.11 ha, 109 ha will be excavated and will be restored by reclamation and rehabilitation. Back-filling/concurrent internal dumping for such reclamation and rehabilitation will start from 6 th year of current plan period, 8.350 ha will be under green belt/peripheral plantation and remaining 150.760 ha will be undisturbed.
Ultimate Working Depth	24.8 m from the surface level of the plateau top
Water Table	250-300m from the surface level of Hill top or 8 -13 m below ground level
Groundwater intersection	PP reported that the water table will not be intersected due to 24.8m deep mining at the plateau top.

10. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Aerial Distance & Direction
Nearest Village	Tentuliguda village	0.7 km, WSW
	Kakriguda	1.0km, W
Nearest Town	Semeliguda	5.4 km, NW
	Koraput	25.0 km, NW
Nearest Highway	NH-43	1.0 km, West
Nearest Railway Station	Damanjodi RS	10.9 km, NNW
Nearest Water Bodies	i. KukurhaghatNala ii. KunduliNala iii. Kolab River iv. Karandi River v. Sunabeda Reservoir vi. KatraNala vii. PathagarhNala viii. PottangiNala	1.1 km, S 3.7 km, SE 4.2 km, W 4.8 km, NNW 5.8 km, WNW 7.6 km, NNW 7.9 km, WSW 7.6 km, S

11. Water requirement:

Total water requirement	61.0 KLD [Fresh water:58.0 KLD & Treated water:3.0 KLD]	Domestic	3.0 KLD
		Wet drilling	4.0 KLD
		Washing of machines	10.0 KLD
		Dust suppression during mining and processing	40.0 KLD
		Plantation	4.0 KLD
Source	Kundli Nala		

12.

Permission	i. PP submitted that the letter from the Office of the Executive Engineer, Koraput vide Lr No. DB-174/Hindalco dated 11.01.2021 stating that the M/s Hindalco Industries Ltd, Semiliguda has renewed its agreement after deposition of 3 months advance water charges in shape of FDR and 9 months bank guarantee as per the
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The
Project Proponent submitted that the entire lease area falls in hilly area under the revenue class of "Pahad and Parbat" and there is no forest land involved in the mine lease area.

PP reported that there are no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger/Elephant Reserves within the 10km radius of the study area. Further, PP reported that the following Reserve Forest such as Pitagurha PF (8.9 km, WSW) and Dushura RF (9.7 km, WSW) are found within 10km radius of the study area.

13. The Project Proponent reported that there is no Schedule-I species found in the study area.

14. The Project Proponent reported that the total mine lease area is 268.11 ha and out of which 8.350 ha will be utilized for green belt/periphery plantation and the remaining will be left undisturbed/planted suitably. PP earmarked a budget of Rs. 1.5 Lakhs/hectare towards greenbelt development around the mine lease area.

15. Baseline details:

The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post monsoon Season i.e., October, 2020 to December, 2020. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October, 2020 to December, 2020 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period	October, 2020 to December, 2020				
AAQ parameters at 10 locations	Pollutant	Min, µg/m ³	Max, µg/m ³	98 %ile, µg/m ³	Standard, µg/m ³
	PM2.5	12.8	30.9	30.6	60
	PM10	28.8	87.7	87.4	100
	SO2	6.1	28.3	28.3	80
	NOx	6.3	46.7	46.6	80
AAQ modelling (Incremental GLC)	Pollutant	Baseline Concentration, µg/m ³	Incremental Concentration, µg/m ³	Total GLC, µg/m ³	Standard
	PM2.5	14.2	4.9	19.1	60
	PM10	50.1	16.4	66.5	100
	SO2	7.4	6.29	14.0	80
	NOx	9.5	2.72	12.3	80
Noise level at 11 locations	Day Time: 38.1 to 66.3 Leq dB (A) Night Time: 32.1 to 58.9 Leq dB (A)				
Ground water quality at 8 locations	PP reported that pH was in the range of 7.06 -7.62 and within the specified standard limits of 6.5 to 8.5. Electrical conductivity of the samples ranged from 277 – 1104 µS/cm. The maximum concentration is found in Kunduli (GW6) and minimum concentration is found in Doliamba (GW7). Calcium and magnesium concentrations ranged from 18.3- 69.8 mg/l and 9.4 – 29.6 mg/l respectively. The total dissolved solids of the samples ranged from 172 - 693.3 mg/l and within the stipulated 2000 mg/l. Iron concentrations in ground water varied from 0.06 - 0.14 mg/l. Zinc levels varied from 0.02 mg/l to 0.21 mg/l respectively. Aluminum concentration in ground water is 0.03- 0.11 mg/l and the limits stipulated. All other metal concentrations are				

	observed to be below detectable limits. The total coliform counts are absent in all the samples against the standard limit of 10 MPN/100 ml. The ground water quality in the study area does not indicate any industrial contamination.
Surface water quality at 7 locations	PP reported that pH value was observed to be in the range of 6.82 to 7.56 and Electrical conductivity was observed to be in the range of 127 µS/cm to 177 µS/cm. The Dissolved Oxygen (DO) was observed in the range of 5.6 mg/l to 6.2 mg/l. The maximum and minimum concentration was found in Kunduli Nala (SW2) and Sunabed reservoir (SW5). Fluoride concentration was found to be in the range of 0.4 mg/l to 0.7 mg/l. The maximum Fluoride concentration was found in Karandi River (SW6) and minimum concentration was found in Kukurhaghat Nala (SW1). Cyanides and phenolic compounds found to be below detection limits. Bacteriological studies revealed that the total coliform count is measured 1020-1360 MPN/100 ml. The surface water quality in the study area does not indicate any industrial contamination.
Soil quality at 10 locations	PP reported that the pH of the soil in the study area ranged from 5.74 to 7.24, indicating moderately acidic to neutral category. Electrical Conductivity observed to be in the range of 38.0 µmhos/cm to 164 µmhos/cm, indicating average category. The nitrogen values ranged between 85.4 to 173.2 kg/ha indicating less to better category. The phosphorus values ranged between 28.9 to 46.8 kg/ha, indicating less to medium category. The potassium values ranged between 108.4 – 214.8 kg/ha indicating very less to medium category.
Traffic study	PP reported that the traffic studies were carried out near the project site for 24-hours on each site between October to December, 2020. The major traffic bearing road connecting the ML area is identified on State Highway, NH-43 which is the nearest highway connecting the ML area. Two major junctions, one near at Semiliguda Junction and other near Damanjodi junction was identified as major intersections where traffic can be accounted. The individual traffic units have been converted to Passenger Car Unit (PCU) for comparison with IRC standards. The total figure of PCUs recorded during the study period was about 2011 PCUs per day.

16. Public Hearing (PH) Details:

Advertisement for PH with date	Daily News Paper “The Times of India” and “Samaj” on 19.10.2021
Date of PH	22.11.2021
Venue	Khata No. 27, Plot No. 40 (P) in Kankaramba village under Semiliguda Tehsil, Koraput District
Chaired by	Additional District Magistrate, Koraput
Main issues raised during PH	Protection of air & water environment, Protection of downhill lands due to soil erosion from mines, Preservation of streams water for agricultural purposes, Development of forest over barren hills & plantation of fruit bearing Trees in the locality, Control of fugitive dust emission during transportation of bauxite ore from the mine &

	protection of agricultural land, Development of forest over barren hills & plantation of fruit bearing Trees in the locality, Employment, Development of education facilities, Development of health facilities, Provision of Pucca Roads, Priority for local people in transportation activities, Construction of Check dam at Pakjhola Village etc
Budget proposed for addressing issues raised during PH	Rs. 4.53 Crores to be spent in next 3 years.

17. The Project Proponent submitted the Integrated Regional Office (IRO), Bhubaneswar carried out the site visit on 04.02.2021 and submitted the certified EC compliance report vide Lr No. 101-207/EPE/308 dated 22.02.2021 for the Environment Clearance dated 07.09.2006 wherein the IRO mentioned that since last 7 years the mine has not been in operation, point wise status of compliance to the stipulations of Environment Clearance would be verified at site only after the commencement of the mines. PP also needs to take up plantation and green belt development in and around the mine once the law-and-order situation in the area is restored to normalcy. IRO also noted that there has been gully formation all along the pathway up the M/s Hindalco Industries Limited affecting the road as well as safety during movement and PP needs to construct catch drains for proper drainage of water during the rains. Measures may also be taken to arrest soil erosion through plantation. PP also submitted the Consent to Operate issued by the State Pollution Control Board, Odisha vide Order No: 3833/IND-I-CON-5437 dated 27.03.2020 for production of 0.6 MTPA of Bauxite and is valid for the period from 01.04.2020 to 31.03.2022.

18. The Project Proponent obtained Environment Clearance on 07.09.2006 under the EIA Notification, 1994; validity of the EC was only for 5 years i.e., 06.09.2011 and the PP has operated the mines from 2012 to 2014 without obtaining Environment Clearance under EIA Notification, 2006. PP also submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing N 354407 dated 03.02.2022 that in pursuance of MoEF&CC Letter No: F.No:3-50/2017-IA.III(Pt.) dated 30.05.2018 and guidelines, this is to undertake that, M/s Hindalco Industries Limited would comply with all the statutory requirements with respect to Maliparbat Bauxite mines as applicable.

19. The Project Proponent submitted that the validity of EC expired on 06.09.2011. During the year 2011-12, 450 Tons of ore was produced before the expiry of the EC on 6th September, 2011. Thus, no mineral was produced during 2011-12 without valid EC. The violation period was from 2012 to 2014 wherein a total of 900 tons of ore was produced at the rate of 450 TPA and this is the basis for subsequent calculations. The actual land utilized at the start of FY 2012-13 was 5.098 ha and there was no horizontal or lateral expansion of mine lease. No new mine pit was opened and no expansion in the area under overburden dump. Hence, there was no change inland use and land cover during 2012-14 except an area of 2.5 ha was brought under greenbelt plantation with 6700 saplings. There was no change in the area used for the disposal of waste. No ground water was used for any purpose during the entire period. The total surface water used during the period of violation was 2279.58 KL, which costs Rs. 11,398/- @ Rs.5/- per KL. Ambient air quality with respect to PM_{2.5}, PM₁₀, SO₂ and NO₂ within the mine lease area

and other areas around the mine lease such as Doliamba, Railway Siding, Kakadamba, Rajanguda, Aligoan, Bhitarikota and Mohanpada were carried out for a period of six months from May to September 2015 and the concentration observed to be with stipulated ambient air quality standards. Based on the violated production quantity of 450 ton in each year during the year 2012-13 and 2013-14, the presumptive damage to air quality has been calculated to be total of Rs.5,10,768. Mining was done in the pit opened during 2008-09 only. Neither the overburden dump nor the top soil dump was expanded after 2012-14. No tree was lost on account of mining. Only the most notorious invasive shrubs were lost from an area of 5.098 ha. There was no damage to the flora and fauna around the mine lease either on account of mining or transport of ore etc. PP earmarked a budget of Rs 4.15 Cr towards ecological damage assessment.

20. The Project Proponent submitted that the Resettlement & Rehabilitation (R&R) plan is not applicable for this project.

21. The Project Proponent submitted the order sheet dated 11.01.2014 dictating restraining orders from 500 meters of the Mali Parbat mining and dumping yard at Kankadaamba village promulgated U/S of Cr.P.C 144 issued by the District Magistrate of Koraput stating sufficient evidence of public disorder and order to be enforced by Semiliguda Police Station. PP also submitted the order sheet dated 20.08.2014 that the general public are abstain U/S 144 Cr.P.C from entering into 500 meters of the Mali Parbat mining and dumping yard at Kankadaamba area. The I.I.C of Semiliguda Police Station is disposed to promulgate the order immediately and report compliance.

22. Affidavit/Undertaking details

Project Proponent submitted an Undertaking	M/s Hindalco Industries Limited has complied with all the prescribed Terms of Reference (ToR) issued by MoEF&CC, New Delhi vide Letter No. J-11015/79/2020-IA.II(M) dated 08.02.2021. We undertake that the information and data provided in the EIA report and submitted to the Ministry are factually correct and project proponent is fully accountable for the same.
Consultant submitted an Undertaking dated 24.01.2022	The Consultant submitted an undertaking that the M/s Vimta Labs Limited has complied with all the prescribed Terms of Reference (ToR) issued by MoEF&CC, New Delhi vide Letter No. J-11015/79/2020-IA.II(M) dated 08.02.2021.

23. Details of the EMP

Activities	Capital cost (Lakhs)	Recurring cost (Lakhs/annum)
Air Pollution Control Equipment	20.15	Rs 20 lakhs provision has been made for annual maintenance cost of pollution control
Water and Wastewater Treatment	4.5	
Noise Control and Monitoring	4.5	
Soil Sampling Equipment	0.20	

Ecological Preservation	37.50	equipment and environmental monitoring.
Sub-Total Cost (Rs. Lakhs)	66.85	
Amount to be spent towards reclamation, restoration and afforestation within the ML area during the life of mine.	300.0	
The cost of Rs. 1.5 Lakhs/hectare of land towards greenbelt development in the peripheral area around the mine lease area	12.45	
Total	379.30	

24. Details of project cost and employment:

Particulars	(Rs. In Crore)
Capital Cost for Environment Protection	Rs 3.79 Cr
Budget for addressing the Public Hearing issues	Rs. 4.53 Cr
Total Cost for EMP	Rs 3.79 Cr
Recurring Cost for EMP	Rs 0.2 Cr
Project Cost	Rs 23.72 Cr
Employment	120 No.s

25. Observation and Recommendation of the Committee:

The proposal for Environmental Clearance (Violation) was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th - 17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee noted that the Project Proponent should revise the quantification of ecological damage assessment by considering the violation period from 2011-12 to 2013-14 on pro rata basis and also to include the damage due to the transportation of the mineral by road. The committee was of the view that the PP should also include the non-provision of rain water harvesting structure and garland drains in the ecological damage assessment and PP needs to rework on the damage assessed for water consumption by considering the CGWA rate. The committee also noted that there was a court case filed vide W.P.(C) No. 473 of 2022 before the Hon'ble High Court of Orissa regarding the challenge of the public hearing held on 22.11.2021 but PP has not brought the issue of court case before the EAC during the meeting and also in Form 2, PP submitted that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up and the committee was of the view that the PP should submit the details of court cases and its current status. Therefore, the Committee **deferred** the proposal for want of the following additional information:-

- i. The Project Proponent should submit the action plan for strengthening of road for transportation i.e., upto highway 7.5km and from highway to railway siding – 1.0km by creating a road of 10m width including the shoulder for facilitating two-way risk free and environment friendly transportation.
- ii. The 24m depth of excavation on the hill slope and its rehabilitation by plantation needs to be submitted by PP.

- iii. An area of 141.760ha which will not be disturbed also needs to be included in the plantation at the conceptual stage. PP should also provide the budget for green belt, afforestation and plantation over backfilled areas along with the time schedule.
- iv. The Project Proponent needs to revise the EMP budget for public hearing in light of the concerns raised by the people as follows: -
 - a. Action plan for Protection of air and water environment along with the budget. PP should also include the provision of continuous air quality monitoring equipment as suggested by the EAC, Member.
 - b. Action plan for protection of downhill land use due to soil erosion along with the budget.
 - c. Action plan for preservation of stream water for the use of agriculture purpose along with the budget.
 - d. Action plan for development of artificial forest over barren hills with atleast 20% fruit bearing trees along with the budget.
 - e. Action plan for control of fugitive emission during transportation along with the budget.
 - f. Action plan for protection of agricultural land due to fugitive dust emission along with the budget.
 - g. Action plan for development of health facilities as suggested by the EAC, Members including the revisit of provision of ambulance facilities and doctor.
 - h. Action plan for provision of pucca roads and construction of check dam at Pakjhola Village and how these activities will be undertaken in terms of target wise, location wise, purpose wise and budget needs to be revised accordingly.
- v. The Project Proponent needs to revise the EMP budget at the mine lease area by including plantation in the mine lease, dust control facilities in the mine lease and the cost of monitoring equipment's.
- vi. The Project Proponent shall give an undertaking that the EMP prepared under EC dated 07.09.2006 under the EIA Notification 1994 was still in operation during the violation period or not. In the instant case, if EMP was not operated, then the total cost of saving on EMP shall be added to Community Resource Augmentation Plan (CRAP).
- vii. The Project Proponent needs to submit the reclamation plan for mined out area of 109.0 ha and also the post mining land use. PP should also submit the plan for backfilling and OB management.
- viii. The Project Proponent should revise the quantification of ecological damage assessment by considering the violation period from 2011-12 to 2013-14 on pro rata basis and also the damage due to the transportation of the mineral by road. PP should also include the non-provision of rain water harvesting structure and garland drains in the ecological damage assessment and PP needs to rework on the damage assessed for water consumption by considering the CGWA rate.

- ix. The cost for Natural Resource Augmentation Plan (NRAP) calculation also needs to be revised by PP.
- x. The Project Proponent needs to submit the copy of demand deposition made to the State Government in the PARIVESH portal. PP should also submit the details of the credible action taken against the PP with the supporting document.
- xi. The Project Proponent needs to submit the authenticated past production details along with Annexure III in the PARIVESH portal.
- xii. The Committee noted that the ToR dated 08.02.2021 granted for a production capacity of 0.6 MTPA of Bauxite, over an ML area of 268.110 Ha. Hence, the PP needs to clarify whether the proposal for inclusion of crusher with a capacity of 200 TPH was also a part of Terms of Reference accorded on 08.02.2021. PP also needs to submit the breakup of total excavation in tonnes.
- xiii. The Project Proponent submitted that the one small dump exists on the mineralized area within the mine lease area spreading over an area of 1.42ha with dimension of 355m x 40m. Hence, PP shall explore the possibility of shifting the dump to the non-mineralized area and also needs to submit the map for the same.
- xiv. The Project Proponent should submit the list of Schedule – I species present in the lease area authenticated by PCCF and the status of National Park/Sanctuary, Biosphere Reserve/Tiger Reserve/Elephant Reserve/any other Reserve, Habitat for migratory birds, Corridor for animals within 10 km of the lease area.
- xv. The Project Proponent needs to submit the details of court case filed vide W.P.(C) No. 473 of 2022 before the Hon'ble High Court of Orissa regarding the challenge of the public hearing held on 22.11.2021 and its current status.
- xvi. The Project Proponent needs to upload all the supporting documents as Annexures in the PARIVESH portal. PP should not provide any link format to download the documents.

3.2 Proposal for Terms of Reference of M/s IDIO Construction and Industries India Ltd for Jalwa Quartz-Quartzite (Silica Stone) mine with production capacity of 502968 TPA in the mine lease area of 19.80ha, located at plot/survey/khasra no-2604, 2625, 2626, Village- Bishanpur, Kajra, District Lakhisarai, Bihar – [File. No: J-11015/86/2020-IA-II(M), Proposal No: IA/BR/MIN/252089/2022] - Terms of Reference (ToR)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s IDIO Construction and Industries India Ltd is for mining of Jalwa Quartz-Quartzite (Silica Stone) with the production capacity of 5,02,968 TPA in the mine lease area of 19.80ha, located at plot/survey/khasra no- 2604, 2625, 2626, Village-

Bishanpur, Kajra, Dist. Lakhisarai, Bihar. The mine lease area is located between Latitude 25°12'11.8"N to 25°12'23.8"N and Longitude 86°16'33.3"E to 86°17'07.9"E. The mine lease area falls under the Survey of India Toposheet No: 72 K/8, 72 K/4 and falls in Seismic Zone IV.

2. M/s Idio Construction and Industries India Ltd initially applied for grant of ToR vide proposal No. IA/BR/MIN/27539/2015 on 08.05.2015 wherein PP informed that the National Green Tribunal, Principal Bench, New Delhi vide order dated 3rd June 2015, disposed of the application No. 42 of 2015 (EZ) (M.A. No. 131/2015 (EZ) submitted by IDIO with a direction to MoEFCC to consider the application for Environmental Clearance filed by the IDIO and pass appropriate order in accordance with law. The proposal was considered in the 35th EAC meeting held between June 24-26, 2015 wherein the Committee observed that *"this is a violation case as mine operated from 2001 to 2008 and 2011 to 2015 without obtaining prior environmental Clearance. The MoEF&CC may take actions on violations as per OM dated 12.12.2012 and 27.06.2013. Based on the information furnished and presentation made by the project proponent and discussions held, the Committee prescribed the TORs."*

3. The Project Proponent again applied vide proposal no: IA/BR/MIN/177645/2020 dated 06.10.2020 for prescribing Term of Reference (ToR) and submitted Form-1 and Prefeasibility report. The proposal was considered in 25th EAC meeting held during 22nd - 24th December, 2020 wherein the based on the documents submitted and presentation made by the project proponent and the Consultant, the Committee noted that the application shall be treated as fresh de novo application as per the Hon'ble NGT order and the Committee deferred the proposal for want of the additional information. PP vide Lr. No. ToR/IDIO/21/Mining/EDS dated 19.01.2021 requested to treat the proposal no. IA/BR/MIN/177645/2020 submitted in the name of Renu Singh and signed by other authorized signatory as null and void as Renu Singh is not holding any Director status in IDIO Construction & Industries (India) Ltd. and the proposal was withdrawn and thereafter a new proposal was submitted vide proposal no. IA/BR/MIN/188268/2020 dated 18.03.2021 and the proposal was placed in the 30th EAC meeting held during 6th - 8th April, 2021 wherein the Committee returned the proposal in present form and asked PP to submit the correct proposal in the name of legal person who has been accorded the LOI and other valid documents with complete details of the proposal.

4. The Project Proponent again applied a fresh proposal for Terms of Reference vide online proposal no: IA/BR/MIN/219661/2021 dated 12.07.2021 and submitted Form1 and Prefeasibility report under the provisions of the EIA Notification, 2006. The proposal was considered in the 34th EAC (Non Coal Mining) meeting held during 27th to 30th July, 2021 wherein the Committee opined that SOP dated 07.07.2021 issued by the Ministry for identification and handling of violation cases under EIA, 2006 has been stayed by the Madurai bench of Hon'ble High Court of Madras vide order dated 15.07.2021. The Committee was of the view that PP should approach Ministry after the final adjudication of the Hon'ble High Court. Therefore, the Committee returned the proposal in present form.

5. Thereafter, the Project Proponent vide Lr dated 20.11.2021 informed that we hereby withdraw our proposal for Terms of Reference submitted vide online proposal no: IA/BR/MIN/177645/2020 stating that as per General Condition of EIA notification, 2006, the distance between Bhimbandh WLS & Jalwa Stone mining is more than 5 km and we need to submit the proposal at SEIAA, Bihar and in support of this PP also submitted the letter obtained from Chief Wildlife Warden vide Lr No: 521 dated 25.10.2021 wherein it is mentioned that the mine lease area is outside the prescribed limits of eco-sensitive zone of Bhimabandh Wildlife Sanctuary and the closest distance of Bhimabandh Wildlife Sanctuary from the mining lease area is more than 5kms based on the map submitted by PP.

6. Now, the Project Proponent again applied a fresh proposal for Terms of Reference vide online proposal no: IA/BR/MIN/252089/2021 dated 18.01.2022 and submitted Form1 and Prefeasibility report under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category "A" of the schedule of the EIA Notification, 2006 as the project attracts general condition as mining lease area located at distance of approx. 3 km, S from Bhimbandh Wildlife Sanctuary and appraised at Central level.

7. Details of Mine lease:

S.no	Grant of mine lease order	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Sa.Aa.Sa.977/M., Patna	30.05.2001	Jalwa Quartz-Quartzite (Silica Stone)	30 years (23.08.2001 - 22.08.2031)	Govt. of Bihar	19.80

8. Details of Mine Plan:

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period	Details
1	Additional Secretary, Mines & Geology Department, Govt. of Bihar	Lr. No. 2497/ M. Patna	28.08.2020	2019-20 to 2023-24	Quartzite, 19.80 ha

9. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th - 17th February, 2022. During the meeting, the Member Secretary informed the Committee that the Project Proponent didn't attend answer the call

and also PP has not submitted any documents to the EAC (Non-Coal Mining) as sought in the 46th EAC Agenda. Therefore, the Committee **deferred the proposal**.

3.3 Proposal for Terms of Reference (ToR) of M/s National Mineral Development Corporation - Chhattisgarh Mineral Development Corporation Limited (NCL), a joint venture of National Mineral Development Corporation Limited (a Central Government Public Sector Undertaking under the administrative control of Ministry of Steel), and Chhattisgarh Mineral Development Corporation Limited (a Government of Chhattisgarh Public Sector Undertaking) is for mining of Iron ore in Bailadila Iron Ore Deposit-4 Mine with production capacity of 7.0 MTPA ROM Iron ore and 6.41 MTPA Waste Excavation (Total Excavation 13.41 MTPA) along with 2000 TPH Crushing plant in the mine lease area of 646.596 ha, located at Village & Tehsil Bachel, District Dantewada, Chhattisgarh – [File. No: IA-J-11015/104/2021-IA-II(NCM) Proposal No: IA/CG/MIN/251288/2021; Consultant: M/s Ecomen Laboratories Pvt Limited] - Terms of Reference (ToR)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s National Mineral Development Corporation - Chhattisgarh Mineral Development Corporation Limited (NCL), a joint venture of National Mineral Development Corporation Limited (a Central Government Public Sector Undertaking under the administrative control of Ministry of Steel), and Chhattisgarh Mineral Development Corporation Limited (a Government of Chhattisgarh Public Sector Undertaking) is for mining of Iron ore in Bailadila Iron Ore Deposit-4 Mine with production capacity of 7.0 MTPA ROM Iron ore and 6.41 MTPA Waste Excavation (Total Excavation 13.41 MTPA) along with 2000 TPH crushing plant in the mine lease area of 646.596 ha, located at Village & Tehsil Bachel, District Dantewada, Chhattisgarh. The mine lease area is located between Latitude 18°41'26.17920"N to 18°43'38.52758"N and Longitude 81°12'02.90192"E to 81°13'07.02661"E. The mine lease area falls under the Survey of India Toposheet No: 65F/2 and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. The Project Proponent initially made an online application vide proposal no: IA/CG/MIN/241426/2021 dated 30.11.2021 and submitted Form1 and Prefeasibility report under the provisions of the EIA Notification, 2006. The proposal was earlier considered in the 43rd EAC (Non-Coal Mining) meeting held during 14th – 16th December, 2021. During the meeting, the Committee noted that the Project Proponent informed that the Mineral beneficiation plant is proposed outside the mine lease area. The Committee observed that the instant proposal is covered under category of 2(b) of EIA notification, 2006, which is standalone and outside the mine lease area and hence the EAC (Non-Coal Mining) Committee cannot appraise the instant project proposal. Therefore, the Committee returned the proposal in present form and was of the view that the Project Proponent should revise the Form1 and PFR accordingly with the factual information and data.

3. Now, the Project Proponent submitted a fresh proposal vide proposal no: IA/CG/MIN/251288/2021 dated 14.01.2022 and submitted Form1 and Prefeasibility report under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category “A” of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 100 ha and appraised at Central level.

4. Details of Mine lease:

S.no	Lease particulars	Date of the grant	Name of the Mineral	Validity	Granted by	Mine lease area in Ha
1	Ministry of Mines vide Notification G.S.R. 697(E) reserves an area of 646.596ha in Bailadila reserve forest, Deposit No. 4, District South Bastar, Chhattisgarh for mineral iron ore for undertaking prospecting or mining operations	30.09.2019	Iron ore	5 years	Ministry of Mines, Gol	646.596
2	Letter of Intent for grant of mining lease vide Lr No: F-2-2-/2005/12	26.06.2021	Iron ore	5 years	Mineral Resource Department, Government of Chhattisgarh	646.596
3	Amendment in Letter of Intent granted vide Lr No 2-20/2005/12 prescribing the requirement of approved Mining Plan	07.08.2021	Iron ore	5 years	Mineral Resource Department, Government of Chhattisgarh	646.596

5. The Project Proponent submitted that Approval of Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines vide Lr No Dantewada /Fe/Khanij-1292/2021/-Raipur dated 24.09.2021 over an area of 646.596ha.

6. The Project Proponent submitted that fully mechanized opencast method of mining will be adopted. PP submitted it is proposed to deploy 150 mm dia rotary percussive drills along with crawler drills of 100mm dia for mine development and bench preparation of mines during 1st five years of operation. Charge per hole is around average of 140 kg for 150 mm dia hole & around average of 400 kg for 250 mm dia hole in ore and waste. PP reported that the mineable reserves estimated about 109.01 MT which will last for about 21 years with proposed production capacity of 7 MTPA. PP also reported that bench height of 12m and bench width of 30m will be maintained during operation phase. The ultimate pit slope will be 45°. Ore production and waste removal will be done by 3.2 cum bucket excavator. 4.0 cu.m Front-end loaders will be used for loading purposes including final products. PP submitted that the haulage of blasted ore from mining faces to the mobile ore dressing plant will be done by means of conventional off high way heavy duty dumpers having a payload capacity of 25 T. The same capacity truck will be used for waste transportation to waste dump. PP also submitted that the during the 1st five years of mining operations, mobile ore dressing plant will be installed at the mine site for production of CLO/Lump (-40+10mm size & -20mm +10mm) & Fines (-10 mm). Once the Crushing plant along with Downhill Conveyor facilities are installed the ore will be Crushed in the Crusher and subsequently transported through Downhill conveyor for further processing. The crushing plant proposed to be installed at hilltop within the mine lease boundary. To connect Primary Stockpile at hilltop and Screening Plant at foothill, various options of downhill conveyor system have been worked out. The crushed ore will be transported through downhill closed conveyor belt system to the screening plant. Once, these facilities are installed, ROM ore, (-) 1,200 mm, from the mine shall be fed to the crushing plant with the help of dumpers at the truck dumping position. The crushed ore of (-) 350mm after being passed through the metal detector is fed to a scalping screen for separation of (-) 150mm size material. The oversize (+150mm) from the scalping screen will pass through secondary cone crusher and reduce to (-) 150mm size. During the plan period, only dry process will be adopted. There will not be any generation of sub-grade middling's and rejects. ROM excavated from the pit will be directly fed to the ore dressing plant. Hence, quantity of the ROM excavation and feed to the plant will be same. Since, dry process is proposed to be adopted during first five year plan period, product grade will be same as feed grade of the plant. The products, i.e., CLO (-40+10 mm) & Fines (-10 mm) generated at mine head by mobile ore dressing plant installed temporarily during this mining plan period will be transported to loading plant proposed near Bhansi Railway Station for onward dispatch to NMDC Steel Plant at Nagarnar, Jagdalpur (C.G.) and other customers. PP reported that the waste generation till the life of the mine will be 68.173 Million Tonne (MT). Waste (Shale and Banded Hematite Quartzite) will be dumped in the waste dump at top level of 1040 MRL (dump1) and 995MRL (dump2) during this plan period which is outside ultimate pit limit. Remaining amount of waste will be backfilled in the North block after extracting all the ores and associated waste materials during the life of the mine. PP

reported that the mining activity will not intersect the ground water table during life of the mine.

7. The Project Proponent reported that the water requirement envisaged to be around 4,250 cu.m per day which will be met from the source of existing Sankini Nalla at EL. (+) 1025.00 at Hill-top and Nerli Nalla at EL. (+) 450.00 at Foot-Hill. PP also submitted that Permission for withdrawal of water from Sankini Nalla and Nerli Nalla will be obtained from Water Resource Department, Government of Chhattisgarh.

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Directions
Village	Nerli	4.7 km, NE
	Bhansi	7.5 km, NE
	Hiroli	7.8 km, W
	Gyatapara	5.0 km, E
	Padhapur	4.5 km SE
Town	Bacheli Town	3.1 km, ESE
	Kirandul Town	6.3 km, SE
Highway	SH-5	3.7 km, E
Railway station	Bacheli Railway station ,	2.7 km, E
	Bhansi Railway station,	7.5 km, NNE
	Kirandul Railway station	7.7 km, SE
Water bodies	Tumka Nala	3.0km, W
	Berudi Nadi	6.0km, W
	Mari Nadi	3.2km, NW
	Pali Nadi	5.3km, NW
	Sankani Nadi	5.4km, E,
	Koyar Nadi	8.2km, SE
	Kadampal Dam	8.2km, SE

9. The Project Proponent reported that the entire mine lease area of 646.596 ha is forest land. PP submitted that the forest clearance will be obtained for a total area of 570.1 ha [646.596ha - 76.496ha (tree fern area not to be diverted)] inside the mining lease area and 100.077ha outside the mining lease area. PP also submitted that application for Stage-I Forest Clearance applied vide proposal no. FP/CG/MIN/146694/2021 dated 04.10.2021 and is under process. PP also reported that there are no National Park, Wildlife Sanctuary, Eco Sensitive Areas, Elephant/Tiger Reserve, Biosphere Reserve within 10km radius of the mining lease area.

10. The Project Proponent submitted that during plan period of first five years greenbelt/plantation will be developed over an area of 58.48 ha. Greenbelt will be undertaken once the mining operation commences and will be developed over 7.5 m (8.488ha) around the mining lease boundary. PP also submitted that afforestation will be carried out on 144.59 Ha of left out excavation area. At conceptual stage, total afforested area will be 521.321 Ha. (Including gap plantation) excluding the Tree fern area. Soil

binding species like *Agave Sislan* (Sisal), *Dendrocalmus Strictus* (Kanta Bamboo) etc., will be planted to stabilize the slope. Densification to the extent of 2700 saplings per hectate of native and pioneer species like *Albizza lebbek* (Siris), *Anilotica* (Babul), *Acateshu* (Karanji), *Dendrocalmus Strictus* (Bamboo), *Phoenix lumilis* (Khajur) etc., succeeded by leguminoseae variety will be planted on the terraces. PP submitted that plantation will be undertaken in consultation with the Forest Department. PP earmarked a budget of Rs 3.20 Cr towards green plant & plantation till the end of life of mine. PP also earmarked a budget of Rs 1.0 Cr towards nursery.

11. The Project Proponent submitted that the mine lease area does not cover any habitation and the mining activities do not involve any displacement of human settlement.

12. The Project Proponent submitted that there is no any litigation pending against the project and/or land in which the project is proposed to be set up.

13. The Project Proponent submitted that the estimated total capital cost of the project is Rs 4091.33 Cr. The mine will provide employment to 700 persons.

14. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Terms of Reference (ToR) for M/s National Mineral Development Corporation - Chhattisgarh Mineral Development Corporation Limited (NCL), a joint venture of National Mineral Development Corporation Limited (a Central Government Public Sector Undertaking under the administrative control of Ministry of Steel), and Chhattisgarh Mineral Development Corporation Limited (a Government of Chhattisgarh Public Sector Undertaking) for mining of Iron ore in Bailadila Iron Ore Deposit-4 Mine with production capacity of 7.0 MTPA ROM Iron ore and 6.41 MTPA Waste Excavation (Total Excavation 13.41 MTPA) along with 2000 TPH crushing plant in the mine lease area of 646.596 ha, located at Village & Tehsil Bachel, District Dantewada, Chhattisgarh for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects:-

- i. The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.
- ii. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity of the adjoining mines, crusher and beneficiation plant in the study area and should indicate the capacity of the each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.

- iii. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution by considering all the mining activity.
- iv. The Project Proponent needs to submit the restoration plan for waste dumps to be located in the forest land. PP should also submit the map demarcating the mineralized and non-mineralized zone in the forest land and non-forest land in the mine lease area.
- v. 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 proper separate budget for the concerns of the local people in terms of health care facilities for COVID, betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets, infrastructure, and environment protection.
- vi. The Project Proponent should submit the detailed plantation/greenbelt plan in tabular format (year wise for entire life of mine) with proper capital and recurring cost. PP shall undertake the adequate plantation with the seedling of 10 ft height with at least 90% survival rate and the peripheral plantation shall be completed within 6 months from the start of mining operations. The casualties of each year shall be replaced every year with new saplings and such number of saplings shall not be counted in the number of saplings proposed to plant in that year. PP shall undertake the progressive bench plantation up to HFL for eco restoration of water bodies. Undertaking in this regard needs to be submitted by the PP.
- vii. The Project Proponent needs to submit the certificate obtained from Forest Department regarding tree fern area not to be diverted at the time of appraisal of EC.
- viii. The Project Proponent needs to submit the certified EC compliance report of adjacent mines for Deposit 5 & Deposit 10 at the time of appraisal of EC.

3.4 Proposal for Terms of Reference of M/s NMDC Ltd. for expansion of Bailadila Iron Ore Project Deposit 14 & 14NMZ MLs from the existing 10.5 MTPA ROM Iron Ore (Dep14: 5.0 MTPA & Dep14NMZ: 5.5 MTPA) and 1.8MTPA Waste excavation (Dep14: 1.0 MTPA & Dep14NMZ: 0.8MTPA) to 18.5MTPA ROM Iron Ore (Dep14: 10MTPA & Dep14NMZ: 8.5MTPA) and 5.7 MTPA Waste excavation (Dep14: 3.8MTPA & Dep14NMZ: 1.9MTPA) along with construction of 2 new crushing plants of 3000 TPH and downhill conveyors inside the mining lease area of 829.11Ha (Dep14: 322.368Ha & Dep14NMZ: 506.742Ha), located at Village Kirandul, South Bastar Dantewada District, Chhattisgarh – [File. No: J-11015/483/2007-IA.II(M), Proposal No: IA/CG/MIN/251292/2021] - Terms of Reference (Expansion)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s NMDC Ltd is for grant of Terms of Reference for expansion of Bailadila Iron Ore Project Deposit 14 & 14NMZ MLs from the existing 10.5 MTPA ROM

Iron Ore (Dep14: 5MTPA & Dep14NMZ: 5.5MTPA) and 1.8MTPA Waste excavation (Dep14: 1.0 MTPA & Dep14NMZ: 0.8MTPA) to 18.5MTPA ROM Iron Ore (Dep14: 10MTPA & Dep14NMZ: 8.5MTPA) and 5.7 MTPA Waste excavation (Dep14: 3.8MTPA & Dep14NMZ: 1.9MTPA) along with construction of 2 new crushing plants of 3000 TPH and downhill conveyors inside the mining lease area of 829.11Ha (Dep14: 322.368Ha & Dep14NMZ: 506.742Ha), located at Village Kirandul, South Bastar Dantewada District, Chhattisgarh. The mine lease area is located between Latitude 18°36'11.202"N to 18°38'31.8650"N and Longitude 81°13'15.946"E to 81°15'24.1185"E. The mine lease area falls under the Survey of India Toposheet No: E44J2 & E44J6 (new) and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. M/s NMDC Ltd earlier made two separate proposals vide IA/CG/MIN/244294/2021 dated 13.12.2021 for Deposit - 14 NMZ ML and vide IA/CG/MIN/244229/2021 dated 15.12.2021 for Deposit - 14 ML. The proposal was considered in the 44th EAC (Non-Coal Mining) meeting held during 28th – 29th December, 2021. After detailed deliberations made by the Project Proponent and the Consultant, the Committee noted that the PP obtained integrated environmental clearance vide Lr. No. J-11015/483/ 2007-IA.II(M) dated 11.09.2007 for Bailadila Deposit 14/11C project for total lease area 935.522 Ha and production capacity 12.00 MTPA ROM Iron ore (Deposit 14-322.368 Ha & 5.0 MTPA, Deposit 14 NMZ- 506.742 Ha & 5.5 MTPA and Deposit 11C-106.412 Ha & 1.5 MTPA) and then, PP obtained Amendment in EC on 01.12.2021 for reduction in mine lease area from 935.522 Ha to 829.11 Ha by exclusion of deposit 11/C of 106.412 Ha (production capacity of 1.5 MTPA ROM) and reduced the production from 12.0 MTPA to 10.5 MTPA ROM with total mine lease area of 829.11 Ha for "Bailadila Deposit-14 & 14NMZ". The Committee also noted that the PP applied for expansion of Deposit-14 & 14NMZ as two separate applications. The Committee was of the view that the instant proposal cannot be considered separately when PP is now having Amendment in EC for combined production capacity of 10.5 MTPA ROM [Deposit 14-5.0 MTPA & Deposit 14 NMZ- 5.5 MTPA] with total mine lease area of 829.11 Ha [Deposit 14-322.368 Ha & Deposit 14 NMZ- 506.742 Ha] for "Bailadila Deposit-14& 14NMZ". Therefore, the Committee returned the proposal in form and was of the view that the PP shall make separate application by mentioning both "Deposit-14& 14NMZ" and bifurcate the production and other parameters for "Deposit-14& 14NMZ" by drawing the reference of Para 4 and Para 14 in Amendment in EC dated 01.12.2021.

3. Now, the Project Proponent has made a single application by drawing the reference of "Deposit-14& 14NMZ" vide online proposal no: IA/CG/MIN/251292/2022 dated 13.01.2022 and submitted Form 1 and PFR under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral beneficiation and falls under Category "A" as the mining lease area is greater than 100ha and appraised at the Central level.

4. The Project Proponent submitted that integrated environmental clearance was granted vide Lr. No. J-11015/483/2007-IA. II(M) dated 11.09.2007 to M/s NMDC Limited for Bailadila Deposit 14/11C project for total lease area 935.522 Ha and production capacity 12.00 MTPA ROM Iron ore (Deposit 14-322.368 Ha & 5.0 MTPA, Deposit 14 NMZ- 506.742 Ha & 5.5 MTPA Deposit 11C-106.412 Ha & 1.5 MTPA). Then, PP obtained amendment in EC on 01.12.2021 for reduction in mine lease area from 935.522 Ha to

829.11 Ha by exclusion of deposit 11/C of 106.412 Ha (production capacity of 1.5 MTPA ROM) and reduced the production from 12.0 MTPA to 10.5 MTPA ROM with total mine lease area of 829.11 Ha for “Bailadila Deposit-14 & 14NMZ”.

5. The Project Proponent submitted that **Deposit-14** Mining Lease was granted to M/s NMDC on 11/09/1965 for a period of 30 years which was valid up to 10/09/1995. The 1st renewal of mining lease was obtained on 29/06/2002 for a period of 20 years which was valid up to 11/9/2015. As per Rule 8 A, of MMDR (Amendment) Act 2015, Dep-14 ML lease extended from 12/9/2015 to 31/03/2020. PP submitted that lease renewal application was submitted to State Govt. for renewal of ML for 20 years from 11/09/2015 to 10/09/2035 in Form- J dated 10/9/2013. Accordingly, as per rule 3(2) of Mineral (Mining by Govt. Co.) Rules, 2015 read with MMDR Amendment Act 2015, mine lease of Deposit 14 ML (Area 322.368 ha) is renewed for 20 years from 12/09/2015 to 11/09/2035 by Government of Chhattisgarh, Mineral Resource Department, Nava Raipur vide letter no:4-15/2014/12 dated 17/12/2019. PP submitted the copy of the amendment to the mining lease agreement dated 10.01.2020 vide Certificate No. INCG13908464276079S executed between the Governor of Chhattisgarh and M/s NMDC Limited for the period up to 11.09.2035.

The Project Proponent submitted that the **Deposit-14 NMZ** mining lease was granted to M/s NMDC on 06.12.1965 for a period of 30 years which was valid up to 05.12.1995. The 1st renewal of mining lease was obtained on 28.06.2002 for a period of 20 years which was valid up to 06.12.2015. As per Rule 8A, of MMDR (Amendment) Act 2015, Dep-14 NMZ ML lease extended from 07.12.2015 to 31.03.2020. Lease renewal application was submitted to State Govt. for renewal of ML for 20 years from 06/12/2015 to 05/12/2035 vide Form- J dated 05.12.2013. Accordingly, as per rule 3(2) of Mineral (Mining by Govt. Co.) Rules, 2015 read with MMDR Amendment Act 2015, lease of Deposit 14 NMZ ML (Area 506.742 ha) is renewed for 20 years from 07.12.2015 to 06.12.2035 by Government of Chhattisgarh, Mineral Resource Department, Nava Raipur vide letter no:4-41/2018/12 dated 17.12.2019. PP submitted the amendment to the mining lease agreement dated 10.01.2020 vide Certificate No. INCG13908490029844S executed between the Governor of Chhattisgarh and M/s NMDC Limited for the period up to 06.12.2035.

6. Land Area Breakup:

Particulars	Deposit 14	Deposit 14 NMZ
Private land	Nil	Nil
Government land	Nil	Nil
Forest land	322.368 Ha	506.742 Ha
Total Mining lease area (MLA) - 829.11 ha	322.368 Ha	506.742 Ha
Private land for crusher, workshop & other infrastructure outside the MLA	Nil	PP has acquired 54.854 Ha revenue land outside ML area for loading plant. PP also acquired revenue land outside ML area measuring 245 Ha out of which an area of 120.10 Ha has been utilized for Tailing dam at Kadampal.
Additional information (if any)	The screening plants are located inside the mining lease area of Deposit-14 NMZ. These facilities are common to the Mining Leases of Deposit-14, 14 NMZ, 11B & 11C of 11 ML.	

7. Details of mine plan approval:

S. No	Particulars	Deposit 14	Deposit 14 NMZ
1	Review of Mining Plan along with Progressive Mine Closure Plan approved by IBM vide	Lr No. Dantewada/ Fe/ Khanij1214/ 2019/ Raipur/549	Lr No: Dantewada/ Fe/ Khanij1216/2019/Raipur/ 547
2	Date of Approval	12.12.2019	11.12.2019
3	Mineral	Iron ore	Iron ore
4	Mine lease area (829.11 ha)	322.368ha	506.742 ha
5	Validity	2020-21 to 2024-25	2020-2021 to 2024-2025

8. Details of mine plan approval:

S. No	Particulars	Deposit 14	Deposit 14 NMZ
1	Method of mining	Opencast fully mechanized method of mining	
2	Total Reserves	402.301 Million Tons	222.816 Million Tons
3	Resources	120.614 Million Tons	78.609 Million Tons
4	Life of mine	40 years	28 years
5	Bench Height	12 m height	12 m height
6	Bench Width	25-30 m width	25-30 m width
7	Individual bench slope	45° to 70°	45° to 70°
8	Overall pit slope	<45°	<45°
9	Drilling	250 mm dia. & 150 mm dia. drill machines for drilling of blast holes	
10	Blasting	Primary Blasting is conducted using Site Mix Emulsion Explosives (SME) in conjunction with cast boosters and Nonel (Non-Electric delay detonators). Secondary blasting is conducted by cartridge explosives of 83mm diameter.	
11	Shovel capacity	8.0/8.8 m ³	8.0/8.8 m ³
12	Dumper's capacity	Existing - 60 T/85T/100T and Proposed - 100T	
13	Transportation	PP submitted that the blasted ore is transported from mine benches by using dumpers to the Crushing Plant inside the mining lease area. The crushed iron ore is transported through closed down hill conveyor system from crushing plant to screening plants (SP-I & SP-II) located within Mining Leases of Deposit-14 NMZ of NMDC Ltd. The final products from screening plant(s) to Loading plant is also transported through covered conveyor system.	
14	Lead distance from mine lease to crushing plant	1.4 – 2.0 km	0.5 – 1.0 km
15	ROM output size	i. ROM input < 1.0 m size ii. ROM output	

		Product Lump Ore CLO Fines	Size (-) 150mm to (+) 10 mm (-) 40 mm to (+) 06mm (-) 10 mm
16	Crushing Plant/Downhill conveyor	<p>The existing crushing plant is located on the eastern side and one new crushing plant of 3000 TPH is proposed.</p> <p>Once the new crushing plant and downhill conveyor system is commissioned and after assessment of performance of the new system for its continuous operation, the existing crushing plant equipment, structures and downhill conveyors up to Conveyor No. 204 (leaving about 100 m at head end of Conv. 204) will be dismantled and vacated for exploiting identified ore reserves in this area.</p> <p>Presently, the crushed ore is transported through closed downhill conveyor belt system passing through the Tunnel to secondary surge pile above screening plant which is located outside ML area (in Deposit-14 NMZ) for further processing of ore. The total length of the conveyor is about 2.2 KM approximately, which is partly in Dep-14 ML & Dep-14 NMZ ML. The crushed ore is</p>	<p>The existing crushing plant is located on the eastern side and one new crushing plant is proposed to be located in the southern side inside the mine lease area along with downhill conveyor system which connects to existing screening plants located inside mine lease area.</p> <p>The crushed iron ore is transported through closed down hill conveyor system from Crushing Plant to Screening Plants (SP-I & SP-II) inside the mining lease area. The final products from Screening Plant(s) to Loading plant is also transported through covered conveyor system.</p> <p>Once new Crushing Plant and associated downhill conveyor system will get stabilized then old infrastructure will be dismantled and the ROM Iron Ore will be transported to the new Crushing Plant. Crushing plant (CP) of Dep-14 NMZ is located in Deposit-14 NMZ ML at 1050 MRL for processing of ROM from Dep-14 NMZ and Dep-11C of 11 ML.</p>

		processed in the screening plant I and II, which are located within 14NMZ mining Lease area.	
17	Quantity of waste generation	152.881 million tonnes	36.551 million tonnes
18	Waste dump location	<p>The waste generated will be dumped in the three waste dumps located towards the North-Western side, Eastern side & South-Eastern side of the Deposit-14. The area demarcated for the waste dump is 46.00 Ha.</p> <p>For accommodating the balance waste quantity of 138.531 MT, PP has identified an additional area of 317.79 hect. of additional land which is outside Dep-14 mining lease on western side.</p>	<p>At present the waste generated from Dep-14 NMZ ML is dumped in Dep-11 ML (in Dep-11C dump). The generated waste will be dumped in South-Western side of Dump No-14 NMZ. The area demarcated for the waste dump is 12.387 Ha.</p> <p>For accommodating the balance waste quantity of 31.469 MT, PP has identified an additional area of 48.493 ha of additional land outside Dep-14 NMZ mining lease. The location of this area is adjacent to Dep-11 ML western lease boundary and connected with Dep-14 NMZ ML with a single boundary pillar A64.</p>
19	Ground water intersection	PP reported that the mining operations are conducted at the hill top which is at a higher-level than the ground water level. The ground water level is at 730 MRL and the mining activity will not intersect the ground water table.	

9. Water requirement:

S. No	Particulars	Deposit 14	Deposit 14 NMZ
1	Fresh water	5675 m ³ /day	Dry Screening: 10625 m ³ / day Wet Screening: 19200 m ³ / day
2	Treated water	Nil	Nil
3	Source	Existing water sources Malinger nalla, Kirandul nalla, Gallinalla etc.	
4	Permission	Permission for surface water withdrawal of 6.735 million cu.m per annum for Kirandul complex from Water Resource Deptt, Raipur is under process	

10. Nearest village / town/ highway/railway station / water bodies:

Particulars	Particular's Name	Distance (aerial) & Direction
Village	Kadampal	2.9 km, NE
	Padhapur	3.8 Km, NE
	Kirandul	Adjacent, E
	Kodenar	1.5 Km, NE
	Pina Bacheli	7.4 Km, NE
	Bainpal	2.7 Km, NE
Highway	SH-5	Adjacent, E
	NH-63	47 Km, NW
Railway Station	Kirandul	0.5 Km, E
	Bacheli	7.2 Km, N
Water Bodies	Koyar nadi	2.0 Km, E
	Malinger nadi	2.4 Km, S
	Madadi nadi	2.9 Km, E
	Sankini nadi	9.6 Km, NW
	Galli nalla	4.1 Km, W
	Berudi nadi	8.0 Km, NW

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

S. No	Particulars	Deposit 14	Deposit 14 NMZ
1	Forest land	322.368 ha	506.742 ha
2	Forest clearance	PP obtained Forest Clearance for diversion of 322.368 Ha of forest land from MOEF, New Delhi vide letter no: 8-41/97-FC dated 18.06.1999.	PP obtained Forest Clearance for diversion of 506.742 Ha of forest land from MOEF, New Delhi vide letter no: 8-40/97-FC dated 18.06.1999 & letter no. 8-40/97-FC dated 17.01.2005.
3	Extension of validity of forest clearance	Validity of Forest Clearance was extended by Forest Dept, Naya Raipur, Chhattisgarh vide letter F-5-28/2006/10-2 dated 31.03.2020 for the period up to up to 11.09.2035	Validity of Forest Clearance was extended by Forest Dept, Naya Raipur, Chhattisgarh vide letter F-5-10/2016/10-2 dated 31.03.2020 for the period up to up to 11.09.2035.
4	Details of NPV	PP paid NPV charges of Rs.30.27 Cr on 21.04.2011 & 15.12.2014 for total lease area 322.368 ha under section 2(iii) of F.C. Act, 1980 and as per guidelines issued by Forest Conservation Division, MOEF&CC vide letter no: 11-599/2014-FC dated	PP paid NPV charges of Rs.47.58 Cr on 21.08.2015 for total lease area 506.742 ha under section 2(iii) of F.C. Act, 1980 and as per guidelines issued by Forest Conservation Division, MOEF&CC vide letter no: 11-599/2014-FC dated 01.04.2015.

		01.04.2015.	
5	National Parks, Biosphere Reserve, Wildlife Sanctuary, Tiger/Elephant Reserves	Nil within 10km radius of the study area	Nil within 10km radius of the study area

12. The Project Proponent submitted that towards the compliance of one of the EC conditions stipulated in EC letter dated 11/09/2007, General conditions (iii) “*conservation measures for protection of flora and fauna in the core and buffer zone shall be drawn up in consultation with the local forest and wildlife department*” has been prepared in consultation with Forest and Wildlife Department. The Report has got approval of PCCF (Wild Life)/CWLW, Raipur vide letter dated 04/2/2017. NMDC deposited an amount of Rs.13.68 Cr to CAMPA AC on 30.01.2017 for implementation of conservation measures by Forest Department.

13. Green belt/ plantation details:

S. No	Particulars	Deposit 14	Deposit 14 NMZ
1	Proposed area for green belt / plantation	PP submitted that gap plantation has already undertaken over 150 Ha with plantation of 2,94,000 no.s. Reclamation and rehabilitation of mined out areas, waste dumps etc. shall be undertaken for plantation purpose once they became passive in a phased manner. PP reported that the area to be covered is 298.368 Ha with plantation of 7,45,920 plants.	PP submitted that gap plantation has already undertaken over 274 Ha with plantation of 5,00,000 no.s. Reclamation and rehabilitation of mined out areas, waste dumps etc. shall be undertaken for plantation purpose once they became passive in a phased manner. PP reported that the area to be covered is 493.542 Ha with plantation of 12,33,855 plants.
2	Budget for green plant & plantation till the end of life of mine.	Rs 69.75 Cr	Rs 115.37 Cr
3	Budget for nursery	Rs.50.00 lakhs for Kirandul Complex	
4	Additional information (if any)	NMDC is contributing funds to Hariyar Chhattisgarh Tree Plantation Programme. So far, NMDC contributed funds of Rs.114.19 Cr to Hariyar Kosh for undertaking road side and block tree plantation programme.	
	Particulars for Greenbelt/ plantation	Area covered (in Ha)	Area covered (in Ha)
5	7.5 m barrier &	3.867	2.997

	non-mineralized zone		
6	50 m safety zone of nallah, roads, electric lines	---	---
7	500 m safety zones of nearest habitation villages	---	---

14. The Project Proponent submitted that MoEF&CC, Integrated Regional Office, Raipur has conducted site inspection on 23rd and 24th December, 2020 with respect to compliance of conditions stipulated in environmental clearance vide letter dated 11.09.2007 for Bailadila Deposit 14/11C project & issued Certified EC Compliance Report vide F.No. 3- 42/2007(ENV)/7734 dated 21st January, 2021. PP submitted the renewal of consent issued by the Chhattisgarh Environment Conservation Board vide No. 8425/TS/CECB/2020 Nava Raipur Atal Nagar, dated: 30.12.2020 with production capacity of 12.0 MTPA (ROM) Iron ore for a period of two years from 01/01/2021 to 31.12.2022.

15. The Project Proponent submitted the past production data duly authenticated by District Mining Officer, South Bastar Dantewada vide Letter No. Khanij/ Dantewada/ NMDC/Prod/2021 for the period 1968-69 to 2020-21. PP also submitted that the District Collector issued demand notice on 15/11/2019 under Common Cause Judgement dated 2/8/2017 for payment of Rs.491.47 Cr for excess production beyond EC and Mine Planning capacities from Kirandul Complex. Out of this, the amount pertaining to the Deposit-14 ML is 10.37 Cr. PP submitted that an amount of Rs.174 Cr (for Dep-14, 14 NMZ & 11C) has been paid towards demand raised on excess production over EC capacities on 10/12/2019 under protest to District Collector, Dantewada. PP has filed W.P(C) 612/2020 against demand notice of the State Government, Chhattisgarh in the Hon'ble High Court, Bilaspur on 22/1/2020. PP also filed a revision application challenging demand notice towards excess production quantities over approved Mining Plan/ Scheme at Mines Tribunal, Ministry of Mines, Gol on 24.01.2020.

16. Rehabilitation & Resettlement:

R & R details	PP submitted that Bailadila Iron Ore Dep-14 & Dep-14 NMZ is an existing project and there is no rehabilitation and resettlement involved.
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17. The Project Proponent submitted that one court case is pending in Bachel First Class Magistrate Court under 33A of Water (P&CP) Act 1974.

18. Details of project cost and employment:

Particulars	Deposit 14	Deposit 14 NMZ
Capital Cost for Environment Protection	Will be incorporated in EIA/EMP report.	

Budget for addressing the Public Hearing issues		
Total Cost for EMP		
Recurring Cost for EMP	Rs. 10.00 Cr per annum for the existing EMP	Rs. 10.00 Cr per annum for the existing EMP
Project Cost	Rs 728.67 Cr	Rs 564.45 Cr
Employment	Existing Manpower: 322 No.s Additional employment: 124 Nos.	Existing Manpower: 682 No.s Additional employment: 109 Nos..

19. Observation and Recommendation of the Committee:

The proposal for Terms of Reference (Expansion) was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee was of the view that the combined ToR for Deposit 14 & 14NMZ shall be issued as the environmental implications are being common in the vicinity of the mine lease area. However, consideration of Environmental Clearance (EC) will be as per the mine lease area only. Therefore, the Committee **recommended** the proposal for grant of Terms of Reference (ToR) for expansion of Bailadila Iron Ore Project Deposit 14 & 14NMZ MLs from the existing 10.5 MTPA ROM Iron Ore (Dep14: 5MTPA & Dep14NMZ: 5.5MTPA) and 1.8MTPA Waste excavation (Dep14: 1.0 MTPA & Dep14NMZ: 0.8MTPA) to 18.5 MTPA ROM Iron Ore (Dep14: 10MTPA & Dep14NMZ: 8.5MTPA) and 5.7 MTPA Waste excavation (Dep14: 3.8MTPA & Dep14NMZ: 1.9MTPA) along with construction of 2 new crushing plants of 3000 TPH and downhill conveyors inside the mining lease area of 829.11Ha (Dep14: 322.368Ha & Dep14NMZ: 506.742Ha), located at Village Kirandul, South Bastar Dantewada District, Chhattisgarh for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects:-

- i. The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.
- ii. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the operating mines in the study area and should indicate the capacity of the each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.
- iii. The Project Proponent shall ensure that the no additional material shall be carried out through road instead PP shall explore the possibility of transporting through rail or any other environment friendly methods.

- iv. The Project Proponent needs to submit the map clearly demarcating the surface features such as existing and proposed waste dump, crushing plants, downhill conveyors, mineralized and non-mineralized zone, etc., within the mine lease area for both Deposit 14 & 14NMZ ML separately.
- v. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution by considering all the mining activity.
- vi. 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 proper separate budget for the concerns of the local people in terms of health care facilities for COVID, betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets, infrastructure, and environment protection.
- vii. The Project Proponent should submit the detailed plantation/greenbelt plan in tabular format (year wise for entire life of mine) with proper capital and recurring cost. PP also needs to submit the details of existing plantation with no. of saplings planted, species type, density of plantation, survival rate and the area covered under green belt and plantation for both Deposit 14 & 14NMZ MLs separately.
- viii. The Project Proponent needs to submit the latest certified EC compliance report at the time of appraisal of EC.

3.5 Proposal for Terms of Reference of M/s SAIL for expansion of Barsua-TaldihKalta Iron mines from 8.05 MTPA to 16.0 MTPA (ROM), Topsoil/OB/IB: 3.92 MTPA and handling 2.0 MTPA Sub-grade dumps/Tailings (Total excavation: 22.0 MTPA) and installation of new Dry Processing Plants of 7.0 MTPA for Taldih & 4 MTPA for Kalta and augmentation of existing 3.5 MTPA Barsua Beneficiation Plant along with adequate loading, siding and associated infrastructure in the amalgamated mine lease area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] out of 2564.323 ha, located at Tantra & Bahamba Villages and Toda RF under Koira Tehsil, Sundargarh District, Odisha – [File. No: J-11015/351/2006-IA.II(M), Proposal No: IA/OR/MIN/241335/2021; Consultant: MECON Limited] - Terms of Reference (Expansion)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The Proposal of M/s SAIL is for expansion of Barsua-TaldihKalta Iron mines from 8.05 MTPA to 16.0 MTPA (ROM), Topsoil/OB/IB: 3.92 MTPA and handling 2.0 MTPA Sub-grade dumps/Tailings (Total excavation: 22.0 MTPA) and installation of new Dry Processing Plants of 7.0 MTPA for Taldih & 4.0 MTPA for Kalta and augmentation of existing 3.5 MTPA Barsua Beneficiation Plant along with adequate loading, siding and associated infrastructure in the amalgamated mine lease area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] out of 2564.323 ha, located at Tantra

& Bahamba Villages and Toda RF under Koira Tehsil, Sundargarh District, Odisha. The amalgamated mine lease area falls under the Topo sheet No: 73G/1 (F45N1) and bounded by Latitude from 21°49'25.43880" N to 21°59'50.88516" N and Longitude from 85°07'43.73832" E to 85°13'53.48136" E and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. The Project Proponent has made an online application vide proposal no. IA/OR/MIN/241335/2021 dated 15.12.2021 and submitted Form-1 and PFR under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at the Central level.

3. The proposal was earlier considered in the 44th EAC (Non-Coal Mining) meeting held during 28th – 29th December, 2021. During the meeting, the Committee noted that the instant proposal was earlier considered in the 42nd EAC (Non-Coal Mining) meeting held during 30th November – 3rd December, 2021 wherein the Committee recommended the proposal for amendment in Environmental Clearance for amalgamation of mine lease and the letter was yet to be issued by the Ministry. The instant proposal for enhancement in production capacity cannot be considered at this stage. Therefore, the Committee deferred the proposal and was of the view that the proposal can be considered only after the issue of letter for amendment in EC by the Ministry. Then, the Project Proponent vide Lr Ref No: SAIL/BIM/CGM-BTK/2021-22/194 dated 25.01.2022 submitted that the Ministry has granted the amendment in EC vide Lr No: F.No: J-11015/351/2006-IA.II(M) dated 25.01.2022 for amalgamation of contiguous mine lease areas and accordingly proposal was reconsidered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022.

4. The Project Proponent submitted that Environmental Clearances obtained in the following chronological order: -

- I. Initially, the Project Proponent obtained the integrated Environmental Clearance vide letter No. J-11015/351/2006-IA.II(M) dated 29.10.2010 for Barsua-Taldih-Kalta Iron Ore Mining (ML-130), Beneficiation and Pelletisation plant project of M/s Steel Authority of India Limited for an annual production capacity of 8.05 million tonnes of iron ore by the opencast mechanized method along with setting up of a beneficiation plant of 4.25 million TPA (in additional to existing plant of 2.5 million TPA) and setting up of a pelletisation plant of 2.0 million TPA capacity involving total mine lease area of 2486.391 ha.
- II. Thereafter, PP obtained the amendment in Environmental Clearance vide F.No.J-11015/351/2006- IA.II(M) (pt.) dated 30.03.2016 for the following:-
 - i. Temporary permission to change iron ore production (ROM) from three blocks viz. Barsua, Talidh and Kalta in ML-130 lease from 2.5, 4.25 and 1.3 million TPA to 3.5, 2.05 and 2.5 million TPA respectively, keeping the total

iron ore (ROM) production restricted to 8.05 million TPA as specified in the earlier environment Clearance.

- ii. Permission to operate existing beneficiation plant at the rate 4.5 million TPA instead of 2.5 million TPA.
- iii. Permission for road transportation of part of iron ore (ROM) from Talidh block to the Barsua Valley (about 11kms.) and to the Barsua beneficiation plant for a period of five years till facilities viz. crushing plant, LDBC are erected and commissioned for the Taldih block.
- iv. 'To replace outside mine lease area' with 'ML-162 lease and acquired area' in environmental clearance, in order to utilize the infrastructure facilities for processing of iron ore produced from ML-130 lease.
- v. To modify the total lease area of ML-130 lease from 2486.391 to 2486.383 ha as per the joint survey committee report (DGPS survey report) of Govt. of Odisha and the lease deed executed by and between the Govt. of Odisha and SAIL on 13th November, 2014.

The amendment for point no. (i) to (iii) will be only for 5 years.

III. Further, the PP amended the Environmental Clearance vide F.No. J-11015/351/2006-IA.II(M) dated 03.07.2020 for i) Excavation of iron ore from Barsua Block at 3.50 MTPA including a provision of excavation of maximum upto 1 MTPA tailings from the tailings pond at Barsua for selling. The excavated tailings will be transported through internal road over 2.1 km to the stacking yard and then to Barsua Public Siding by public road over 0.6 km or any other nearby railway sidings, ii) Excavation of iron ore from Taldih & Kalta Blocks at 2.05 MTPA and 2.50 MTPA respectively including provision of excavation and dispatch of sub-grade iron ore fines maximum upto 0.5 MTPA from Fines Stocks from each block for selling. The excavated sub-grade iron ore fines will be dispatched by road / road & rail and iii) Continuation of the already amended provisions of EC amendment dated 30.03.2016 (valid up to 30.03.2021) for further two years i.e. up to 31.03.2023, which are (i) Permission to change iron ore production (ROM) from three blocks viz. Barsua, Taldih and Kalta in ML-130 lease from 2.5, 4.25 and 1.3 MTPA to 3.5, 2.05 and 2.5 MTPA respectively, keeping the total iron ore (ROM) excavation restricted to 8.05 MTPA as specified in the earlier environmental clearance, ii) Permission to operate existing beneficiation plant at the rate of 4.5 MTPA instead of 2.5 MTPA), subject to the following conditions (SI. No 22 A), in addition to the conditions prescribed in the EC and subsequent amendments.

IV. Subsequently, the PP amended the Environmental Clearance vide F.No. J-11015/351/2006-IA.II(M) dated 03.07.2020 with corrigendum dated 13.07.2020 that the entire 2.05 MTPA iron ore excavated at Taldih will be trucked directly to Barsua Private/Public Sidings till construction of road from Taldih to Barsua Beneficiation Plant.

V. Again, PP amended the Environmental Clearance vide F.No. J-11015/351/2006-IA.II(M) dated 17.03.2021 for re-distribution as (i) increase in iron ore production from Kalta Block by 0.7 MTPA from 2.5 MTPA and the final capacity is 3.2 MTPA which also includes maximum of 0.5 MTPA of sub-grade iron ore fines excavated from accumulated stocks and (ii) reduction in iron ore production from Taldih Block by 0.7 MTPA from 2.05 MTPA and the final capacity is 1.35 MTPA which also includes maximum of 0.5 MTPA of sub-grade iron ore fines excavated from accumulated stocks within permitted EC capacity of 8.05 MTPA.

VI. Then, PP obtained amendment in Environmental Clearance vide J-11015/351/2006-IA.II(M) dated 25.01.2022 for amalgamation of contiguous mine lease areas comprising of ML-130 (2486.383ha) and ML-162 (77.94ha) as total area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] without change in production capacity [8.05 MTPA ROM and Beneficiation Plant Capacity 3.5 MTPA].

5. The Project Proponent submitted that the Barsua Iron Mine (Southern part) and Kalta Iron Mine (Northern part) are in operation since 1960 and 1966 respectively. The Taldih Iron Mine (Middle part) has started production in the year 2016. There were two contiguous mining leases namely ML – 130 (main iron ore mining lease) and ML – 162 (for infrastructure) under the Barsua – Taldih – Kalta Iron Mines. The mining lease for ML- 130 (2486.383 ha) was granted on 06.01.1960 for a period of 30 years and subsequently it has renewed & lease deed for the 2nd renewal period has been executed on 13.11.2014 having validity up to 05.01.2030. The associated infrastructure facilities of Barsua Iron Mine are located in another adjoining mining lease viz ML – 162 (77.94 ha), which was granted on 29.04.1960 and subsequently it has also been renewed as well as extended the lease period up to 28.04.2030 and supplementary lease deed was executed on 24.09.2016. Based on the SAIL's application, Dept. of Steel and Mines, Govt. of Odisha vide proceeding No. IV(B)SM-03/2020/10418/SM, Bhubaneswar, dated 02.12.2020 amalgamated the contiguous Mining Leases viz ML – 130 (2486.383 ha) and ML – 162 (77.94 ha) covering total area of 2564.323 ha having validity up to 05.01.2030. Lease deed of the amalgamated lease has been executed on 30.03.2021.

6. Land use/Land Cover of the Mine Lease Area:

Particulars	Area	Remarks
Forest Land	2425.613 ha	Total Forest Land for which Stage-II FC is available is 2419.871 ha
Private land	24.014 ha	Non-Forest Land
Government land	114.696 ha	
Schedule Tribe & Other Traditional Forest Dwellers	5.742 ha	
Total MLA	2564.323 ha	

7. Mining plan details:

Modification of Mining Plan along with Progressive Mine Closure	Letter No.	MP/A/39-ORI/BHU/2020-21
	Date	01.04.2021

Plan approved by IBM	Validity	2020-21 to 2024-25
	Area	amalgamated mine lease area of 2564.323 ha
Mining Parameters		Quantitative Description
Method of Mining	Open cast mining with deep hole drilling and blasting and excavation and haulage through shovel dumper combination.	
Mineable Reserve	Barsua Block : 130.72 MT Taldih Block : 328.26 MT Kalta Block : 96.01 MT	
Drilling/Blasting	Barsua Block : DTH drill of 150m dia/Slurry Explosive Taldih Block : DTH drill of 150m dia/Slurry Explosive Kalta Block : DTH drill of 100m dia/Slurry Explosive	
Bench Height	Barsua Block : 10 m Taldih Block : 12 m Kalta Block : 6 m	
Bench Width	Barsua Block : 20 m Taldih Block : 20 m Kalta Block : 10 m	
Individual bench slope	80°	
Overall pit slope	<45°	
ROM Production	Barsua Block : 4.0 MTPA Taldih Block : 8.0 MTPA Kalta Block : 4.0 MTPA	
Life of mine	Barsua Block : 33 Years Taldih Block : 43 Years Kalta Block : 24 Years	
Transportation details	Barsua Block : Belt conveyer to Barsua railway siding Taldih Block: Long distance conveyer to Barsua Railway Siding Kalta Block : Long distance conveyer to Roxy Railway Siding	
Dumpers capacity	Barsua Block : 50/60/100T Taldih Block : 25/35/100T Kalta Block : 25/35T	
RoM output size	150 mm	
Throughput Capacity of Processing Plants	Barsua Block : 3.5 MTPA Taldih Block : 7.0 MTPA Kalta Block : 4.0 MTPA	
Waste Dump Management	PP submitted that Waste/ overburden/ sub-grade materials will be hauled to designated dump yards as planned in the approved mining plan. The waste materials will be utilized for back-filling of ultimate pit voids. During the conceptual stage there will be no external OB dumps. All external OB dumps will be rehandled and backfilled in the mined-out pits during	

the final closure.

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Direction
Village	Tantara	Within Lease
Town	Koira	10 km
Highway	NH – 520	Passing through lease
Railway Station	Barsua	1 Km
Water bodies	Samaj Nalla Kurahi Nala Karo River	Passing through lease 0.1 km 3.0 km

9. The Project Proponent submitted that the total water requirement is 8845 KLD which will remain within the permitted amount even after project expansion. The main source of water for Barsua Mine area is Kuradih River. Presently, Barsua Mine has a permission to draw water at the rate of 2,50,000 m³ per month from Kuradih Nalla. The main source of water for Kalta Mine area is Najkura Nala. Presently, Kalta Mine has a permission to draw water at the rate of 24,500 m³ per month from Najkura Nalla. PP reported that mine working will not intersect ground water level.

10. The Project Proponent submitted that the plantation is being done inside the lease area of Barsua-Taldih-Kalta Mines and nearby areas for creating greenbelt over the period of years. Development of greenbelt in township area includes plantation along the roadsides, around buildings, school, canteen, post office, store, club etc. with adequate width and density of plantation through local species. In compliance to the forest clearance condition related to Safety Zone protection, scheme for Safety Zone plantation has been prepared and phase wise plantation within safety zone of mining lease is being done through State Forest Department. Safety Zone plantation of 32000 saplings over an area of 93.679 ha has been done through State Forest Department. Apart from this, so far 225865 saplings have been planted covering an area of 110.48 ha since 2010. In the year 2020-21, total 13000 saplings have been planted over an area of 5.50 ha at Barsua and Kalta block. The plantation efforts will continue at these mines as per the progressive mine closure plan or approved mine closure plan.

11. The Project Proponent submitted that out of 2564.323 ha, 2425.613 ha is Forest Land (Toda R.F.) and 138.710 ha is Non-Forest Land. PP submitted that 5.742 ha of Forest Land, which was part of ML – 130, is under occupation of the local Schedule Tribe & Other Traditional Forest Dwellers in Village Tantra. Their individual rights have been recognized by granting pattas under Forest Right Act., 2006. PP obtained Stage-II Forest Clearance vide MoEF F.No.8-90/1996-FC (pt), dated 06.03.2013 for diversion of forest land over 2341.931ha (2248.252ha for mining and allied activities and 93.679ha for safety zone) under ML – 130 of BarsuaTaldih-Kalta in favour of M/s SAIL. Then, PP obtained Stage-II Forest Clearance vide MoEF F.No.8-18/2014-FC dated 23.10.2017 for diversion of 77.94 ha of forest land including 2.562ha of safety zone area for development of mining

infrastructure in Toda RF in ML-162 lease of M/s SAIL. Further, PP submitted that Stage – II Forest Clearance over 2419.871 ha obtained covering under the amalgamated lease. PP submitted that Odisha-Jharkhand inter-state boundary is located at a distance of ~0.3 km, N. Further, PP submitted that there is no National Park, Wild Life Sanctuary, Eco Sensitive Zone, Elephant Reserve/Tiger Reserve, Wildlife Corridors within 10km radius.

12. The Project Proponent reported that there is a Schedule-I species in the buffer zone such as Indian Elephant, Sloth Bear, Wolf and Mouse Deer. PP submitted that two Site Specific wild life conservation plans (SSWCP) were approved by Chief Wildlife Warden, Odisha vide dated 25.02.2013 for 2486.313 ha & 13.01.2016 for 77.94 ha. Amounts of Rs.17.82 Crores & Rs. 9.84 Crores were deposited for implementation of approved SSWCPs in Buffer Zone of Barsua-Taldih-Kalta Iron Mines.

13. The Project Proponent submitted the Consent to Operate issued by the Odisha State Pollution Control Board vide Consent Order No: 14129/IND-I-CON-1 (A) dated 17.09.2021 for production of 8.05 MTPA (ROM) [(i) Barsua – 3.5 MTPA iron ore including excavation and dispatch of tailings maximum up to – 1.0 MTPA from the tailing pond at Barsua, (ii) Kalta – 3.2 MTPA iron ore including excavation and dispatch of subgrade iron ore fines maximum up to 0.5 MTPA from fines stocks and (iii) Taldih – 1.35 MTPA iron ore including excavation and dispatch of subgrade iron ore fines maximum up to 0.5 MTPA from fines stocks] and operation of mobile crushing and screening plant of capacity 4x300 TPH and operation of mobile screening plant of capacity 4x300 TPH for the period up to 31.03.2022. PP submitted the Certified EC Compliance report issued by the Integrated Regional Office (IRO), Bhubaneswar vide Lr No. 101-257/21/EPE/1353 dated 29.10.2021. Site visit was carried out by IRO, Bhubaneswar on 22nd & 23rd October, 2021.

14. The Project Proponent submitted the year wise production data of ML-130 (2486.383 Ha) from 1993-94 to 2018-19 certified by Deputy Director of Mines, Koira vide Mem No 6522/Mines, dt 13.12.2019 and for the period 2019-20 to 2020-21 certified by Deputy Director of Mines, Koira vide Mem No 4004/Mines, dt 22.10.2021. PP reported that subsequent to the judgment of Apex Court dated 02.08.2017, the Government of Odisha has issued demand notice to Barsua Kalta Mines for payment of compensation towards excess production on or before 31st December, 2017 against EC/CTO capacity. Dy. Director of Mines (DDM), Koira vide letter dated 02.09.2017 issued a demand notice for payment of Rs. 66,89,42,779.5 /- in respect of Barsua / Kalta Iron Mines to recover price of mineral produced without/beyond EC alone under Section 21 (5) of MMDR Act, 1957. The said amount was deposited on 29.12.2017 under protest. Further, letter No.5962/Mines dtd, 24.10.2017 of DDM, Koira has directed to pay compensation of Rs.90,19,71,684.40 /- for mining in excess of the permissible limit under the Consent to Operate. Against the above stated demands, SAIL had filed a Writ Petition bearing WP (C) No- 24282/2017 in High Court of Odisha, Cuttack. The matter was heard and Hon'ble High Court had passed the stay order on 04.04.2018 & matter is sub-judice. PP also submitted the affidavit dated 20.04.2020 that Barsua-Taldih-Kalta Iron Ore Mine (ML-130, Mining Lease: 2486.383 Ha) of SAIL shall comply with all the statutory requirement & judgment of Hon'ble Supreme

Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors subject to the result of the pending writ petitions before Hon'ble High Court of Odisha and further appeals thereto if need arises.

15. The Project Proponent submitted that no R&R plan is required as no displacement of people is proposed for the expansion of Barsua-Taldih-Kalta Iron Ore Mining Project.

16. The Project Proponent submitted that the total cost of the project is Rs. 2740.88 crore. PP reported that since the production augmentation is mainly at Taldih & Kalta under the proposed expansion, additional total manpower of approximately 613 persons and 520 persons will be required at Taldih and Kalta Mines respectively for regular operation in addition to the existing departmental manpower. Additional employment of about 1133 nos. will be generated from the project.

17. Observation and Recommendation of the Committee:

The proposal for Terms of Reference (Expansion) was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Terms of Reference (ToR) for M/s SAIL for expansion of Barsua-Taldih-Kalta Iron mines from 8.05 MTPA to 16.0 MTPA (ROM), Topsoil/OB/IB: 3.92 MTPA and handling 2.0 MTPA Sub-grade dumps/Tailings (Total excavation: 22.0 MTPA) and installation of new Dry Processing Plants of 7.0 MTPA for Taldih & 4.0 MTPA for Kalta and augmentation of existing 3.5 MTPA Barsua Beneficiation Plant along with adequate loading, siding and associated infrastructure in the amalgamated mine lease area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] out of 2564.323 ha, located at Tantra & Bahamba Villages and Toda RF under Koira Tehsil, Sundargarh District, Odisha for undertaking detailed EIA/EMP study. In addition to Standard Term of Reference for non-coal mining, along with the recommendation made by NEERI in its carrying capacity study for Odisha, the Committee also prescribed the following specific term of reference for this project: -

- i. The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.
- ii. Dust control systems around the crushing, screening and dry processing plants have to be properly showcased and demonstrated in the EIA/EMP report through the measures being taken as the mine lease area is located in hilly terrain. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned.
- iii. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution by considering all the mining activity.
- iv. The Project Proponent needs to carry out the traffic study including carrying capacity of road for additional transportation of mineral. The Project Proponent

needs to ascertain the impact of transportation and details of transportation route viz. (length of the road, type of road, passing through the village or habitation) and mitigative measures to be taken for abatement of pollution due to transportation. The impact assessment report should include the combined capacity of all three mines.

- v. 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 proper separate budget for the concerns of the local people in terms of health care facilities for COVID, betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets, infrastructure, and environment protection.
- vi. The Project Proponent should submit the detailed plantation/greenbelt plan in tabular format (year wise for entire life of mine) with proper capital and recurring cost. The plan should be prepared in such a way that the plantation around the dust generating sources should include 50% of Sal plantation and 50% of other species and later on it should be replaced with 50% of Sal plantation. PP also needs to submit the details of existing plantation with no. of saplings planted, species type, density of plantation, survival rate and the area covered under green belt and plantation.
- vii. The Project Proponent should also submit the map demarcating the mineralized and non-mineralized zone in the forest land and non-forest land in the mine lease area.
- viii. Efficacy of mist canons at the operating plant shall be demonstrated through video clipping at the time of appraisal of EC.

3.6 Proposal for Terms of Reference of M/s Rungta Mines Limited for Chandiposhi Iron Ore Block with peak production capacity of 1.0 Million TPA (ROM) Iron Ore with a total excavation of 1.0945 Million TPA (1.0 million TPA (ROM) Iron Ore + 0.0945 million TPA of waste) along with 2 x 250 TPH mobile crushing and 3 x 350 TPH mobile screening plants in the mine lease area of 131.580ha, located at villages Badaindupur, Sanua, Sargigarh and Tehrei, Tehsil Koira, District Sundargarh, Odisha – [File. No: IA-J-11015/8/2022-IA-II(NCM); Proposal No: IA/OR/MIN/251080/2022; Consultant: Min Mec Consultancy Pvt. Ltd.] - Terms of Reference (ToR)

EAC Meeting Details:

EAC meeting	46 th
Date of Meeting	15 th , 16 th and 17 th February, 2022

The proposal of M/s Rungta Mines Limited is for mining of Iron ore in Chandiposhi Iron Ore Block with peak production capacity of 1.0 Million TPA (ROM) Iron Ore with a total excavation of 1.0945 Million TPA (1.0 million TPA (ROM) Iron Ore + 0.0945 million TPA of waste) along with 2 x 250 TPH mobile crushing and 3 x 350 TPH mobile screening plants in the mine lease area of 131.580ha, located at villages Badaindupur, Sanua,

Sargigarh and Tehrei, Tehsil Koira, District Sundargarh, Odisha. The mine lease area is located between Latitude 21°53'20.76434"N to 21°54'14.12851"N and Longitude 85°11'16.48253" E to 85°18'04.32181" E. The mine lease area falls under the Survey of India Toposheet no. 73 G/5 and falls in Seismic Zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth.

2. M/s Rungta Mines Limited has made an online application vide IA/OR/MIN/251080/2022 dated 11.01.2022 and submitted Form 1 and PFR under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 100ha and appraised at the Central level.

3. Details of Mine lease

S.no	Letter of Intent (Lol)	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Letter of Intent for grant of mining lease for a period of 50 years in pursuant to Rule 10(2) of the Auction Rules vide Lr No IV(B)SM50/2021/8719/SM, Bhubaneswar and Lol is valid for a period of 3 years from the date of its issuance	28.10.2021	Iron ore	50 years	Government of Odisha	131.580 ha,

4. Land use/Land Cover of the Mine Lease Area:

Private land	14.558 ha
Government land	33.421 ha
Forest land	83.601 ha
Total Mining lease area (MLA)	131.580 ha

5. Details of Mine Plan:

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period	Details
1	Mining Plan along with Progressive	MP/A/19-ORI/BHU/2021-22	24.11.2021	5 years from the execution	131.580ha, Iron ore

	Mine Closure Plan (PMCP) approved by IBM			of mining lease	
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6. The Project Proponent submitted that the method of mining will be opencast mechanized mining with drilling and blasting. Drilling will be carried out by means of 110 mm dia crawler drill with 610 HP compressors. Blasting will be carried out with the help of explosives (slurry type) boosters and ANFO and Class-VI explosives (TLD, electric detonators and detonating fuse). PP reported that the total geological resource is 47.0698 Million Tonnes and mineable reserve is 42.3628 Million Tonnes. The anticipated life of mine will be 50 years from the execution of the mining lease. PP also reported that the height and width of the benches will be maintained at 9 m & 15 m respectively. The individual bench faces will be kept at 60° whereas the overall quarry slope angle is proposed to be kept at around 40° with the horizontal. PP submitted that for ore haulage/waste handling shovel of 4.2 m³ bucket capacity in combination with 40 tonner dumpers will be utilized. ROM containing mainly blasted hard ore will be fed to a mobile crushing-screening plant fitted with grizzly. ROM with SLO, Fines, BD will be fed directly to mobile screening plants. The oversized materials will be fed to crushing plant to produce sizable products for steel making. Mineral processing units in form of mobile crushing & screening plants will be deployed in the block. The market demand is for Fines (-5 mm) & Sized ore (5-18 mm, 10-30 mm). PP submitted that during the plan period the waste will be dumped in the earmarked place and will be spread over an area of 4.24 ha. PP reported that the water table will be encountered during life of mining and will take necessary permission from CGWA before intersecting the ground water table.

7. Nearest village / town/ highway/railway station / water bodies:

Particulars	Details	Distance & Direction
Nearest Town	Koira	3.7 km, W
Nearest Highway	NH (Panikoili to Rajamunda)	4.0 km, NW
Nearest Railway station	Barasuan Railway siding	13.1 km, WSW
Nearest water bodies	Teherei Nala	Within NW & N
	Khajurdihi Nala	1.0 km, SE
	Lakerapani Nala	1.5 km, NNW
	Archanda Nala	1.6 km, E
	Suna Nadi	1.6 km, E
	Gahirajala Nala	1.9 km, E
	Porhadihi Nala	2.9 km, S
	Khuntachira Nala	4.0 km, SSW
	Raura Nala	4.8 km, SSW

8. Water requirement

Total water requirement (KLD)	251.0 KLD		Dust suppression	97.0 KLD
	Ground water	64.0 KLD	Greenbelt	30.0 KLD
	Surface water	187.0 KLD	Drinking & Domestic	64.0 KLD
			Dry crushing and screening plant	55.0 KLD
			Miscellaneous	5.0 KLD
Source	i. Water harvested within mine lease during rainy season. ii. Surface water from Teherai Nala after due approval &			

	agreement with Water Resources Division iii. Ground water for drinking and domestic purpose, with due permission from Central Ground Water Authority (CGWA).
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9. The Project Proponent reported that the total mine lease area is 131.580ha out of which forest land is 83.601 ha and non-forest land is 47.979ha. PP submitted that the application for forest clearance has been submitted vide proposal no: FP/OR/MIN/150057/2021 dated 10.12.2021 for diversion of 83.601ha of forest land. PP reported that there are no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger/Elephant Reserves within the 10km radius of the study area. Further, PP reported that the following Reserve Forest such as Mendhamarani RF (2.1 km, NW), Kathamala RF (4.6 km, W), Sarkanda RF (6 km, SW), RF near Anandapur (Bhabari Pahar) (3.1 km, SW), Khajurdihi RF (5.3 km, SSW), Baitarani RF (7.0 km, NE), Siddhamath RF (7.2 km, NE), Karo RF (8.6 km, NW), Uliburu RF (9.0 km, NNW) are found within 10km radius of the study area.

10. The Project Proponent reported that the proposed area for greenbelt/plantation will be 5.85ha out of which 3.5ha falls under safety zone & 2.35ha falls under village road safety zone). PP earmarked a budget of Rs 2.5 Cr towards green plant & plantation till the end of life of mine.

11. The Project Proponent reported that no rehabilitation and resettlement plan is envisaged as there is no habitation will be disturbed within the mine lease area.

12. The Project Proponent submitted that there is no any litigation pending against the project and/or land in which the project is proposed to be set up.

13. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs.152 Crores
Employment	176 Persons

14. Observation and Recommendation of the Committee:

The proposal for Terms of Reference was considered in the 46th EAC (Non-Coal Mining) meeting held during 15th-17th February, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Terms of Reference (ToR) for M/s Rungta Mines Limited for mining of Iron ore in Chandiposhi Iron Ore Block with peak production capacity of 1.0 Million TPA (ROM) Iron Ore with a total excavation of 1.0945 Million TPA (1.0 million TPA (ROM) Iron Ore + 0.0945 million TPA of waste) along with 2 x 250 TPH mobile crushing and 3 x 350 TPH mobile screening plants in the mine lease area of 131.580ha, located at villages Badaindupur, Sanua, Sargigarh and Tehrei, Tehsil Koira, District Sundargarh, Odisha for undertaking detailed EIA/EMP study. In addition to Standard Term of Reference for non-coal mining, along with the recommendation made by NEERI in its carrying capacity study for Odisha, the Committee also prescribed the following specific term of reference for this project: -

- i. The Project Proponent should install the continuous ambient air quality monitoring stations in such numbers as per the scientific study and in consultation with CPCB.
- ii. The Project Proponent needs to submit the plan for protection of Teherei nalah (NW & N) due to the proposed mining activity. PP also needs to submit an undertaking that the Teherei nalah will be not be disturbed and diverted due to the mining activity.
- iii. The Project Proponent needs to submit the conceptual plan properly delineating the safety zone including the protection of Teherei nalah and the post mining land use in the EIA/EMP report. PP should also submit the map demarcating the mineralized and non-mineralized zone in the forest land and non-forest land in the mine lease area.
- iv. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity of the operating mines in the study area and should indicate the capacity of the each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.
- v. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution by considering all the mining activity. The evacuation of the material from the mines and its impact during transportation should also be clearly brought into the EIA/EMP report.
- vi. The Project Proponent needs to clearly bring out the hydro geology impact of the proposed temporary stock yard on the northern side near the Teherei nalah and also the impact on water quality. PP should also explore the possibility of shifting the stock yard.
- vii. As the mining activity likely to intersect the ground water table, PP needs to carry out the detailed hydro geological study for intersection of ground water table and impact of surface water withdrawal from Teherei nalah and also needs to submit the NOC from CGWA for intersection of ground water table.
- viii. The Committee noted that the Project Proponent has not mentioned the capacity and no.s of mobile crushing and screening plants involved in this proposal, however during the EAC meeting, PP has informed verbally that the 2 x 250 TPH mobile crushing and 3 x 350 TPH mobile screening plants proposed in the mine lease area of 131.580ha. Hence, the PP should include the proposal of mobile crushing and screening in public hearing and accordingly should prepare the EIA/EMP report covering the impacts and its mitigation measures proposed.
- ix. 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 proper separate budget for the concerns of the local people in terms of health care facilities for COVID, betterment of schools nearby

and to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets, infrastructure, and environment protection.

- x. The Project Proponent should submit the detailed plantation/greenbelt plan in tabular format (year wise for entire life of mine) with proper capital and recurring cost.
- xi. The Project Proponent should submit the list of Schedule – I species present in the lease area authenticated by PCCF and the status of National Park/Sanctuary, Biosphere Reserve/Tiger Reserve/Elephant Reserve/any other Reserve, Habitat for migratory birds, Corridor for animals within 10 km of the lease area.
- xii. The Project Proponent needs to submit the Affidavit as per Ministry's O.M No 3-50/2017-IA.II(M) dated 30.05.2018.

List of members of Expert Appraisal Committee participated through VC

S.No.	Member Name	Member Address	Designation	15 th Feb, 2022	16 th Feb, 2022	17 th Feb, 2022
1	Dr. S.R. Wate	Add. 148/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Chairman	Yes	Yes	Yes
2	Dr. Ajay	Building A-26, Flat-	Member	No	No	No

	Deshpande	403, Happy Valley Homes, Manpada, Ghodbunder Road, Thane (West) - 400610, Maharashtra				
3	Shri B Ramesh Kumar	H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025, Andhra Pradesh	Member	Yes	Yes	Yes
4	Prof. S. Ramakrishna Rao	50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	Yes	Yes	Yes
5	Shri Santosh Gupta	Flat No. 405, Block –B, Gaur Green Vista, NyayKhand -1, Indrapuram, Ghaziabad- 201014	Member	Yes	Yes	Yes
6	Dr. Asha Rajvanshi	Wildlife Institute of Inida, Chandrabani, Dehradun- 248001	Member	Yes	Yes	Yes
7	Shri G.P. Kundargi	Plot No. 32, MOIL Vatika, Chicholi Road, Fetri, Nagpur 441501, Maharashtra	Member	Yes	Yes	Yes
8	Dr. A.K.Malhotra	House no. 33, Sector – 11, Dwarka. (Near Gate No. – 1 of sector 11 metro Station), New Delhi – 110075.	Member	Yes	Yes	Yes
9	Dr. Gurdeep Singh	Centre of Mining Environment, Department of Environmental Science & Engg. Indian Institute of Technology (Indian School of Mines), Dhanbad-826004	Member	Yes	Yes	Yes
10	Dr. Parimal Chandra Bhattacharjee	A/3 Asiyana Housing Complex Maligaon, Guwahati-781011, Assam	Member	No	No	No
11	Prof. MukeshKhare	Department of Civil Engineering, IIT, Delhi	Member	Yes	No	Yes
12	Shri V. K. Soni	Government of India,	Member	No	No	No

		Ministry of Earth Sciences, India Meteorological Department, MausamBhawan, Lodi Road, New Delhi – 110003				
13	Shri Pankaj Kulakshethra	Regional Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	Yes	Yes	No
14	Shri Ram Avatar	Representative of DGMS	Member	No	No	No
16	Shri Pankaj Verma	2 nd Floor, Prithvi Block, Indira ParyawaranBhawan, MoEF&CC, Jorbhag, New Delhi- 110003	Member Secretary	Yes	Yes	Yes
17	Shri Gowrappan	No. 6, Ganesh Avenue, II Street, Shakti Nagar, Porur, Chennai, Tamil Nadu-600116	Special invitee	No	No	Yes
18	Shri Thiru. S. Thangamuniasamy	Deputy Director, DGM, Alandur Road, Guindy Industrial Estate, Guindy, Chennai-600032, Tamil Nadu.	Special invitee	Yes	No	No
