

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

SUMMARY RECORD OF 12TH MEETING OF THE COMMITTEE OF THE RE-CONSTITUTION OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 12th meeting of the Re-constitution of Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 21-22 March, 2023 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 11th EAC (Non-Coal Mining) meeting held during 1-2 March, 2023:

The minutes of the 11th EAC meeting held during 1-2 March, 2023 were placed before the members of the EAC.

Day 1: 21st March, 2023 (Tuesday)

1.1 Kodla Limestone Mine (ML No. 2673 & 2674) of M/s Shree Cement Limited for Expansion in Production Capacity of Limestone from 3.8 to 12.5 Million TPA and Top Soil 0.1455 Million TPA, OB 1.1257 Million TPA (Total Excavation: 13.7712 Million TPA) along with One existing crusher of capacity 1200 TPH and installation of One additional proposed crusher of capacity 1200 TPH along with Wobbler in in the mine lease area of 517.61 ha, located at Villages: Kodla & Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka - [File No:- IA-J-11015/24/2021-IA.II(M), Proposal No: IA/KA/MIN/420794/2023, Consultant: M/s J.M. EnviroNet Pvt. Ltd] - Environmental Clearance (Expansion)

The instant proposal is for mining of Limestone in Kodla Limestone Mine (ML No. 2673 & 2674) of M/s Shree Cement Limited for Expansion in Production Capacity of Limestone from 3.8 to 12.5 Million TPA and Top Soil 0.1455 Million TPA, OB 1.1257 Million TPA (Total Excavation: 13.7712 Million TPA) along with One existing crusher of capacity 1200 TPH and installation of One additional proposed crusher of capacity 1200 TPH along with Wobbler in in the mine lease area of 517.61 ha, located at Villages: Kodla & Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka.

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

- i. The mine lease area is located between Latitude: 17°00'41.48402"N to 17°02'23.14289"N to Longitude: 77°12'37.9107"E to 77°14'24.3641"E. The mine lease area falls under the Survey of India Toposheet No: 56G/4 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral beneficiation and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.

iii. Details of Previous Environmental Clearance (EC):

Date of application	Proposal No/ File No	Consideration by EAC	Details of EC	Date of accord
18.05.2012	IA/KA/IND/5125/2008 J-11011/458/2008-IA.II(I)	EAC-1 (Industry) meeting held during 14-15 June, 2012	Integrated Cement Project (Clinker - 2.4 MTPA, Cement - 4.0 MTPA, Captive Power Plant - 44 MW & Captive Limestone Mine - 3.8 MTPA, 551.36 ha) at Villages Kodla & Benkanhalli, Taluka Sedam, District Gulbarga, Karnataka by M/s. Shree Cement Ltd	19.09.2012
14.12.2017	IA/KA/IND/5125/2008 J-11011/458/2008-IA.II(I)	21-22 December, 2017	Amendment in EC dated 19.09.2012 w.r.t reduction in mine lease area from 551.36 ha (ML No. ML-957/AML/07) to 517.61 ha (ML No. 2673 & 2674) with no change in production capacity.	09.02.2018

iv. Details of Terms of Reference (ToR):

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
20.03.2021	IA/KA/MIN/93756/2019 11015/24/2021-IA-II (M)	6-8 April, 2021	Terms of Reference for Expansion in Limestone Production Capacity from 3.8 to 12.5 Million TPA and Top Soil 0.1455 Million TPA, OB 1.1257 Million	19.07.2021

			TPA (Total Excavation: 13.7712 Million TPA) along with One existing crusher of capacity 1200 TPH and installation of One additional proposed crusher of capacity 1200 TPH along with Wobbler in Kodla Limestone Mine (M L No. 2673 & 2674 & ML Area- 517.61 ha) at Villages: Kodla & Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka	
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v. Details of Mine Lease:

- a) The Project Proponent submitted that initially mining lease was granted by the Govt. of Karnataka vide letter no. DMG: MLS: 957 AML 07/2009-10/7024 dated 10.09.2009 for mining of Limestone over an area of 1362.425 acres for a period of 30 years in favour of M/s Shree Cement Limited.
- b) The Project Proponent also submitted that while execution of the lease, DMG divided the total mining lease area (i.e. 517.61 ha) into two ML areas and the same has been executed as ML No. 2673 over an area of 91.87 ha on 07.06.2014 and ML No. 2674 over an area of 425.74 ha on 05.08.2014.
- c) Thereafter, the Project Proponent submitted the application to Director, DMG for amalgamation of both ML area under Rule 38 of Mineral Concession Rules, 1960 on 20.08.2014 and DMG recommended the State Government for amalgamation on 18.09.2015 and the State Government granted the permission for amalgamation vide letter no. C17 CMC 2016 dated 04.05.2017 over an area of 517.61 ha for the period upto 06.06.2044 (Coterminous with Lease period whose period will expire first).
- d) The amalgamated mining lease deed has been executed on 05.11.2018 over an area of 517.61 ha for mining of Limestone for the period 07.06.2014 to 06.06.2044.
- e) Further, the Project Proponent submitted that as per section 8A of MMDR Amendment Ordinance, 2015, the period of mining lease has been extended up to 06.06.2064.

vi. The Project Proponent submitted that the total mine lease area is 517.61 ha, out of which 377.18 ha land is private land and 140.43 ha land is private land as per land schedule.

vii. Details of Mining Plan:

Review and updation of Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	279/1043/2009/BNG-1235
	Date	25.11.2021
	Mineral & (Major/Minor)	Major
	Mine Lease Area, Ha	517.61
	Validity	2022-23 to 2026-27
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanized Opencast Mining Method	
Drilling/Blasting	<p><u>Drilling:</u> Since the stratum is hard and compact, drilling is required to break the rock. Drilling is being/ will be carried out by crawler mounted DTH hammer Drill machine equipped with in built arrangement of water sprinkling for dust suppression and separate dust extraction system. Following drilling parameters are being/will be used to meet the production requirements:</p> <p style="padding-left: 40px;">Bench Height : 12 meters Depth of Drill Hole : 12 meters Drill Hole diameter : 150 -165 mm Burden : 4 -6 meters Spacing : 5 -7 meters Inclination with respect to horizontal : Vertical Sub Grade Drilling : Not required (The use of bottom initiation blasting system and bottom air deck technology, there will be no need of sub grade drilling)</p> <p><u>Blasting:</u> Blasting is being/ will be done using the non-electric shock tube detonators, down line detonators in combination with Noiseless Trunk Line Detonator. Explosive such as Slurry & ANFO is being/will be used for blasting. Bottom charge is done with cap sensitive, booster explosive. ANFO is used as column charge in dry holes. In case of wet holes, non-cap sensitive slurry explosive is used. No secondary blasting is envisaged in this mine. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker.</p> <p>Blasting Parameters</p> <p style="padding-left: 40px;">Depth of Hole : 12 meters Diameter of Hole : 150 -165 mm Burden : 4.0 m to 5.0 m Spacing : 6.0 m to 7.0 m Stemming : 1/3 of the depth of hole</p>	

	<p>Sub Grade Drilling : Nil Charge of explosive per hole : 120 Kg Charge per round : 5040 Kg Powder factor : 6Tonnes per kg Type of explosive to be used : Slurry explosives and ANFO Initiation: Bottom initiation by the use of down line detonator in combination of Noise less trunk line detonator on surface</p>
Geological Reserves	270.24 Million Tonnes as on 31.03.2021
Mineable Reserves	240.03 Million Tonnes as on 31.03.2021
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Limestone 12.5 Million TPA and Top Soil 0.1455 Million TPA, OB 1.1257 Million TPA (Total Excavation: 13.7712 Million TPA)
Life of mine	22 Years i.e., up to 31.03.2043
Mine Bench Height & Bench Width	Bench Height – 12 m Bench Width–30 m (working width)
No. of Mine Benches	4
Existing Depth, m bgl	30 m bgl
Ultimate Depth of Mining, m bgl	47 m bgl
Ground Water Table, m bgl	45 to 55 m bgl
Details of ground water intersection	Water table intersection will be during fourth year of mining plan period. Necessary permission will be taken prior intersection of water table.
Individual bench slope	85°
Overall pit slope	45°
Details of existing/proposed Crusher	One existing crusher of capacity 1200 TPH and installation of One additional proposed crusher of capacity 1200 TPH along with Wobbler
Mineral Beneficiation	
RoM output size	-40 mm and -90 mm
Transportation details including capacity of dumper/tipper, mode of transport and distance	Total Limestone handling in the mine will be max 34722.22 TPD. Blasted limestone will be loaded by large size hydraulic excavators into the dumpers for onward dispatch to the crusher (for limestone) and waste dump (for waste and soil). Blasted mineral of limestone is being/will be transported to crusher hopper (located within the mine lease area) and waste is being/ will be transported from working face to dump yard site by means of rear dump trucks. Capacity of rear dumps are 55 tonnes. Mine site is adjacent to the Cement Plant in South direction. Finally, the crushed limestone is being/ will be sent to the Cement Plant of the company by Covered Conveyor Belt of 650 m length

Generation of Topsoil/OB & its Management during plan period & conceptual period	Particulars	Top Soil generation and management	OB generation and management
	Plan period:	At end of the mining plan period, 246320 m ³ (0.39 Million Tonnes) top soil will be generated out of which 0.147 million m ³ will be stacked in an area of 1.0 Ha and having a height of 6.0 m and 0.098 million m ³ will be used for plantation purpose.	At end of the mining plan period, 1.101 million m ³ (1.9 Million Tonnes) OB will be generated which will be temporarily stacked in the form of dumps covering the area of 12.22 Ha and having a height of 10 m in form of 4 OB Dumps.
	Conceptual stage:	The total top soil quantity to be removed at conceptual stage is in tune of 1.97 million tonnes which will be used in plantation to stabilize the backfilled area & plantation purpose	Total 9.44 million cum (17 million Tonnes) of OB will be generated which will be backfilled in the 159.83 ha excavated area up to maximum height of 10.63 m.
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Nil		

viii. Water requirement:

Total water requirement	390 KLD	Fresh Water	360 KLD
		Treated water	30 KLD
Source	Ground water, Kagina River and from Mine sump		
Permission for withdrawal/ intersection along with details of grant and its validity	<p>i. NOC for withdrawal of Groundwater of 2000 KLD has been obtained from Karnataka Ground Water Authority vide NOC no DE0011345827563 dated 21.12.2022 (Valid up to 08.12.2025).</p> <p>ii. The permission to withdrawal 1500 KLD fresh water from Kagina River has been obtained from Department of Water Resource vide letter no. No. WRD 57 KBN 2012 dated 31/07/2014 & renewed on</p>		

13.07.2020 (Valid Up to 12.09.2023)

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

Particulars	Particular's Name	Directions
Nearest village	Village Hulgol	~1.5 km, SSE
	Village Kodla	~2.0 km, ENE
	Village Dongaon	~2.0 km, WNW
	Village RajoliBuzurg	~2.0 km, SW
	Village Benakanahalli	~2.5 km, North
	Village Gowdnahalli	~3.5 km, SE
Nearest Town	Sedam	~15 km, NE
Nearest State/National Highway	SH- 15	~2.5 km, East
	SH- 126	~ 5.5 km, WSW
	SH- 122	~ 6.0 km, SSE
Interstate Boundary	None	None
Railway Station/Railway line	Malkhed	~ 12 km, NNW
Water Bodies	Kamalavati Nadi	~7.5 km, East
Forest	Yadgir RF	~8.5 km, WSW

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

Forest Land / Protected Area / Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	The Project Proponent submitted that there is no forest land involved in mining lease area. Letter has been obtained from State Forest Department vide letter No KFD/WL/LAND(LND)/51/2019 dated 09.01.2020
National Park	No	There is no National Park, Wildlife Sanctuary, Wildlife Corridor, Tiger/Elephant Reserves within 10 km radius study area. Letter along with authentication of location Map has been obtained from State Forest Department vide letter No KFD/WL/LAND(LND)/51/2019 dated 09.01.2020.
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	No	
Coastal Regulation Zone (CRZ)	No	--
Schedule-I species (No.s and name of schedule-I species with authenticated	No	As per authenticated list of flora and fauna from State Forest Dept, no schedule I fauna was found in the study area.

letter)		
Wildlife Conservation Plan	No	No schedule I fauna was found in the study area.

xi. Green belt/Plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	207.46 ha with 5,18,221 no of saplings including greenbelt on 7.5 m lease boundary
Budget for green plant & plantation till the end of life of mine.	Rs 5.18 Crore
Budget for nursery	Nil
Details of existing plantation and its survival rate	At present 17.4 ha (9.94 ha area as greenbelt on 7.5 m lease boundary and 7.46 ha area as plantation on virgin area) has been covered with greenbelt and plantation
No. of tree cuts in the mine lease area and compensatory afforestation	-
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	At present 17.4 ha (9.94 ha area as greenbelt on 7.5 m lease boundary and 7.46 ha area as plantation on virgin area) has been covered with greenbelt and plantation
50 m safety zone of nallah, roads, electric lines	Nil
500 m safety zones of nearest habitation villages	Nil

xii. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)			
Period of baseline data collection	December 2021 to February 2022		
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Winter Season (December 2021 to February 2022)		
Predominant Wind direction (From)	East direction		
Ambient Air Quality (no. of locations) and results	No. of Location	Parameters	Results
	10	PM10	41.5 to 87.8 µg/m ³
		PM2.5	24.6 to 51.8 µg/m ³
		SO2	5.5 to 14.8 µg/m ³
		NO2	10.4 to 28.9 µg/m ³

		CO	BDL to 0.80 mg/m ³		
Noise level (no. of locations) and results	No. of Location	Parameters		Results	
	08	During Day Time [Leq dB(A)]		51.4 to 68.4	
		During Night Time [Leq dB(A)]		41.7 to 53.8	
Water Quality (no. of locations) and results	Ground water quality				
	No. of Location	Parameters		Results	
	09	pH		7.18 to 7.78	
		TDS (mg/l)		448 to 692	
		Fluoride (mg/l)		0.83 to 1.10	
		Sulphate (mg/l)		52.68 to 114.78	
		Calcium (mg/l)		45.5 to 95.0	
		Magnesium		14.5 to 25.2 mg/l	
	Surface Water Quality				
	No. of Location	Parameters		Results	
	03	pH		7.32 to 7.96	
		TDS (mg/l)		158 to 216	
		DO (mg/l)		6.7 to 7.1	
		BOD (mg/l)		5.1 to 8.6	
Magnesium		10.81 to 15.62 mg/l			
Soil Quality (no. of locations) and results	No. of Location	Parameters		Results	
	09	pH		6.28 to 8.13	
		Texture		Clay Loam	
		Organic Matter (%)		0.98 to 1.18 %	
Hydro geological study and results	Ground Water Level (Phreatic Surface) - 13 Locations				
	Monitoring Location	Range of Water Table Pre-monsoon Season (in m below ground level)		Range of Water Table Post-Monsoon Season (in m below ground level)	
		From (Pre-monsoon)	To (Pre-monsoon)	From (Post-monsoon)	To (Post-monsoon)
	Buffer Zone	3.7	56.2	1.2	50.5
	Core Zone	53.3	56.2	40.2	50.5
Traffic study (no. of locations) and results	No public road is being/will be used for transportation of Limestone. Therefore, traffic study is not required				

xiii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	National Level/Local Level: The Hindu dated 27.02.2022 (English daily newspaper) Prajavani dated 27.02.2022 (Kannada daily Newspaper) Sanjevani dated 01.03.2022 (Local Kannada daily newspaper)
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	Newspaper)
Date of PH	30.03.2022
Venue	At Project Site at Villages: Kodla & Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka
Chaired by	Sri Yeshwanth V. Gurukar, I.A.S, Deputy Commissioner, Kalaburagi District
Main issues raised during PH	Issues raised during public hearing were about Infra Development, Education, Drinking Water facilities, Skill Development, Employment based training, Healthcare facilities, Plantation in nearby areas, etc.
Budget proposed for addressing issues raised during PH over 3 years	Rs. 4.30 Crore (Capital) and Rs. 0.42 Crore/annum (Recurring)

xiv. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine:

Particulars	Details of Letter along with date of grant and validity
Consent to Establish (CTE)	CTE was granted by SPCB on 29.11.2013 for Limestone Production capacity of 3.8 Million TPA over an area of 551.36 ha Corrigendum in CTE was issued by SPCB on 21.06.2018 w.r.t reduced mine lease area for Limestone Production capacity of 3.8 Million TPA over an area of 517.61 ha
Consent to Operate (CTO)	CTO was granted by SPCB on 29.01.2022 for Limestone mining of capacity 3.8 MTPA for the period from 01/04/2022 to 31/03/2027
Certified Compliance Report and Inspection date	Integrated Regional Office, Bengaluru vide letter dated 31.10.2022 issued the Certified Compliance Report (CCR) for the EC dated 19.09.2012 & 09.02.2018. Site inspection of the project was carried out on 14.09.2022.
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	Past Production details duly authenticated by Department of Mines & Geology, Government of Karnataka dated 25.01.2023 for the period Apr-2022 to Dec-2022 and 11.04.2022 for the period 2018-19 to 2021-22 respectively.

xv. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent submitted that the total mine lease is 517.61 ha which falls at villages Kodla and Benakanahalli. As per approved mining plan, out of which 377.18 ha land is private land and 140.43 ha land is private land while as per land schedule, Total lease area allotted to Shree Cement Limited on lease for
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	30 years. This is running mine and expansion in limestone production capacity is proposed within existing mining lease area. Therefore, no additional land will be required.
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xvi. Court case details:

Court Case, No and its present status & Undertaking by Project Proponent w.r.t court case	The Project Proponent vide letter dated 30.01.2023 submitted that there is no litigation pending against the project and/or any direction/order passed by any court of Law against the project and /or land in which the project and that for any such litigation whatsoever, the sole responsibility will be borne by the company.
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xvii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent submitted the Affidavit in a non-judicial stamp paper of Rs 50 bearing no: AU 701934 dated 30.03.2021 stating that the company hereby undertake to comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in w.r.t. Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking vide letter dated 30.01.2023 stating that the conditions laid down in ToR letter issued by the Ministry of Environment, Forest and Climate Change vide ToR Lr.No: IA-J-11015/24/2021-IA.II(M) dated 19.07.2021 in accordance to the EIA Notification, 2006 and as amended thereof have been complied with and the data submitted and the information presented in this report are factually correct.
Undertaking by Consultant in EIA/EMP report	The Consultant submitted an undertaking vide letter dated 01.03.2023 to the effect that the Terms of Reference issued by MoEF&CC, New Delhi vide letter no. IA-J-11015/24/2021-IA.II(M) dated 19.07.2021 have been complied as per data/details provided by Project Proponent & as per Review and Modification in Mining Plan approved by IBM and the data submitted are factually correct.
Plagiarism Certificate	The Head of the Accredited Consultant Organization/ Authorized person certified that this EIA Report has been evaluated by using online software viz. Plagiarism Checker X on 01.03.2023. 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.
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xviii. Details of the Environmental Management Plan (EMP):

S.No	Activities	Existing Cost (3.8 Million TPA)		Additional Cost (8.7 Million TPA)		Total Cost (12.5 Million TPA)	
		Capital	Recurring	Capital	Recurring	Capital	Recurring
A.	Air Quality monitoring and Protection						
1	Permanent water sprinkling arrangements for main haulage road Existing: 2000 m Length; Additional: 12000 m Length	1.5	0.2	50	5	51.5	5.2
2	Two no of water tanker mounted water sprinkling arrangement for water spraying at haulage road, Mining area and other road transporting vehicles are passing through the habitant area. (Capacity 10 KL) [Existing: 1; Additional 1]	25	3	30	3	55	6
3	Wheel washing setup with civil work (Additional)	0	0	2	0.1	2	0.1
4	Inbuilt water sprinkling system is there in our existing screening & Crusher plant.	10	1	24	3.5	34	4.5
5	Permanent Haul Road to be converted into Pucca (300 m)	0	0	60	5	60	5
6	Bag Filters	40	5	40	5	80	10
7	Two No. of mist Cannon at mine site for suppression of dust. (5 nos. of mist cannon @ 12 Lakh each	0	0	60	2.5	60	2.5
8	Development for Greenbelt in 7.5 m wide safety zone all along the mine lease boundary Safety zone along the ML area 11.17 ha @ Rs. 100 including cost of seedling, plantation, manuring and watch & ward. (Existing 9.94 Ha area with 24421 saplings & Proposed 1.23 Ha area with 3075 saplings	24.42	2	3.74	3	28.16	5
9	Plantation on backfilled area in 159.83 ha with	0	0	472	60	472	60

S.No	Activities	Existing Cost (3.8 Million TPA)		Additional Cost (8.7 Million TPA)		Total Cost (12.5 Million TPA)	
		Capital	Recurring	Capital	Recurring	Capital	Recurring
	saplings of 399575 and plantation on Topmost benches of 29 Ha with saplings 72500 @ Rs. 100 including cost of seedling, plantation, manuring and watch						
10	Plantation on un-worked area 7.6 ha 18650 No. of saplings (@ Rs. 100 including cost of seedling, plantation, manuring and watch & ward.	18.65	5	0	0	18.65	5
11	One Continuous Ambient Air Quality Monitoring Station (Existing: 1; Additional 02)	50	5	75	10	125	15
	Air monitoring Equipment for PM10 & PM2.5 (Ambient Air Quality Monitoring at 3 locations)	6	2	2	0.5	8	2.5
	Fugitive Dust emission monitoring	10	1	20	1	30	2
	Weather monitoring Station with civil work.	1.5	0.2	0	0	1.5	0.2
	Noise monitoring device	1	0.2	0	0	1	0.2
B. Water Quality monitoring and Preservation							
1	Construction of garland drains	6.7	2	3.1	1	9.8	3
2	2 nos. of settling pond including a water harvesting pond	0	0	5.4	0.5	5.4	0.5
3	Construction of retaining wall	10	2	62	5	72	7
4	Installation of piezometers (2 locations)	1.5	0.2	1.5	0.2	3	0.4
5	Groundwater Quality Analysis (2 times/year)	1	0.2	2	0.5	3	0.7
6	Surface water Quality Analysis (2 times/year)	0	0	1	0.2	1	0.2
7	Soak pit followed by septic tank	1	0.3	1	0.3	2	0.6
C. Noise and Vibration monitoring and Preservation							
1	The Peak particle velocity monitoring at 2 villages (Nos and name- Kodla & Benkhanhalli)	2	0.3	2	0.3	4	0.6
	Noise Level Monitoring in core and buffer zone (4 locations with half yearly frequency)						

S.No	Activities	Existing Cost (3.8 Million TPA)		Additional Cost (8.7 Million TPA)		Total Cost (12.5 Million TPA)	
		Capital	Recurring	Capital	Recurring	Capital	Recurring
D.	Occupational Health & Safety						
1	Appointment an Occupational Health Specialist for Regular as well as Periodical medical examination. Occupational Health Check-ups of workers annually.	4	0.5	6	1	10	1.5
	Occupational health surveillance	1	0.1	2	0.2	3	0.3
F	Miscellaneous						
1	Digital mapping of the entire lease area once in five years	1	0.1	2	0.2	3	0.3
	Sub Total	216.27	30.2	926.74	108	1143.01	138.2
G	Estimated Budget for addressing the Public Hearing issues (Within 3 years)	0	0	430	42	430	42
	Total	216.27	30.2	1356.74	150	1573.01	180.2

xix. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Total Cost for EMP (Capital Cost of EMP + Capital cost of Public hearing)	Capital Cost: Rs. 13.57 Crores (Capital cost of EMP: Rs. 9.26 Crore + Capital cost for public hearing: Rs. 4.30 Crore)
Project Cost	Rs. 84.7 Crores
Employment	237 persons

3. Observation and Recommendation of the Committee: -

The EAC noted that the instant proposal is for Expansion in Limestone Production Capacity from 3.8 to 12.5 Million TPA along with one existing crusher of capacity 1200 TPH and installation of one additional proposed crusher of capacity 1200 TPH along with Wobbler in in the mine lease area of 517.61 ha. The Project Proponent/Consultant presented the KML file to indicate the surface features in the vicinity of the mine lease area and in the study area of 10 km radius. The Project Proponent informed the EAC that the mining operation was started in the September, 2018. In order to cater the requirement of the Limestone of the Integrated Cement Plant, proposal for expansion in Limestone Production Capacity from 3.8 Million TPA to 12.5 Million TPA in Kodla Limestone Mine along with installation of one additional proposed crusher of 1200 TPH along with Wobbler is being sought. PP also informed that proposal for Environmental Clearance (EC) for

expansion in Integrated Cement Plant - Clinker (2.4 to 8.0 Million TPA), Cement (4.0 to 9.0 Million TPA) was submitted to the Ministry on 10.03.2023.

The EAC asked about the separate block inside the mine lease area. The Project Proponent informed the EAC that it is an expired mine lease belonging to other owner. The expired mine lease was excluded by the State Government from the instant mine lease while granting the mine lease. The exploration was done under G1 category and the total mine lease area is mineralized. The total excavated area at the end of life of the mine will be 494.17 ha. The crushed limestone is being/will be sent to the Cement Plant of the company by Covered Conveyor Belt of 650 m length. The mine lease area is adjacent to the Cement Plant in South direction. No public road is being/will be used for transportation of Limestone. The Project Proponent informed that there are three existing Waste Dumps such as Dump No.1 (1.8 ha), Dump No.2 (3.1 ha), Dump No.3 (0.9 ha) and the Dump No. 4 which is proposed to be used from the year 2029. Backfilling will start from the year 2029. Ultimate depth of mining will be 47m bgl. Ground water table is located at depth of 45-55m bgl. Water table will be intersected during fourth year of mining plan period. Necessary permission will be taken prior ground water intersection.

The EAC asked the Project Proponent to plan the shifting the crusher before starting the mining operation in the crusher area since the entire mine lease area is mineralized. The Project Proponent informed the EAC that there are no habitations and water bodies exist within the mine lease area. Further, the Project Proponent informed that there are no National Parks, Wildlife Sanctuary, ESZ, Tiger/Elephant Reserve etc., within 10km radius of the study area. Further, the Project Proponent informed that there is a provision to establish a 25 MW Captive Solar Plant over an area of 71.8 ha in the southern part of the mining lease area. Application for this proposed captive solar power plant was made to competent authority i.e. Karnataka Renewable Energy Development Limited Bangalore on 23.03.2017. Later on this Captive Solar Plant will be shifted to the worked out pit or any other area owned by the owner when mining activity will start in the area.

The EAC asked the Project Proponent whether wobbler is involved in dry or wet processing. The Project Proponent informed the EAC that wobbler processing is dry and at present wobbler is not in operation. The EAC also asked the Project Proponent to brief about the amalgamation history of the mine lease. The EAC asked the Project Proponent to blend low grade limestone with high grade limestone for better conservation of mineral. The EAC advised the project proponent to deploy manpower planning in connection with deployment of statutory manpower such as electrical and mechanical engineers. The Project Proponent informed that initially mining lease was granted by the Govt. of Karnataka vide letter dated 10.09.2009 over an area of 551.36 ha. The Integrated Environmental Clearance (EC) was obtained vide EC letter dated 19.09.2012 over an area of 551.36 ha and while execution of the mine lease deed, DMG divided the total mining lease area (i.e.

517.61 ha) into two ML areas and the same has been executed as ML No. 2673 over an area of 91.87 ha on 07.06.2014 and ML No. 2674 over an area of 425.74 ha on 05.08.2014. An application was submitted to Director, DMG for amalgamation of both ML areas under Rule 38 of Mineral Concession Rules, 1960 on 20.08.2014 and DMG recommended the State Government for amalgamation on 18.09.2015 and the State Government granted the permission for amalgamation vide letter dated 04.05.2017 over an area of 517.61 ha. Then, the amendment in EC dated 19.09.2012 w.r.t reduction in mine lease area from 551.36 ha (ML No. ML-957/AML/07) to 517.61 ha (ML No. 2673 & 2674) was obtained on 09.02.2018. The mine operation started in the year 2018-19 only and no production was done before this period and the production is well within the limits of EC capacity of 3.8 MTPA. Further, the Project Proponent informed the EAC that the proposed expansion capacity of 12.5 Million TPA will be achieved in the 5th year (2026-27).

The EAC opined that the Project Proponent needs to explore the possibility to reduce the water consumption by using non-toxic chemicals. The Project Proponent informed the EAC that at conceptual stage, 334.34 ha area will be converted into water reservoir which will serve as recharge pit. Water stored in reservoir shall be used by the villagers for other purposes like agriculture etc. PP also informed that budget of Rs 4.30 Cr has been allocated to address the concerns of the public hearing. Further, the Project Proponent presented the Certified Compliance Report (CCR) issued by the Integrated Regional Office, Bengaluru vide letter dated 31.10.2022 for the EC dated 19.09.2012 & 09.02.2018. Site inspection of the project was carried out on 14.09.2022. Project Proponent informed that no non-compliances were identified during the site visit.

After detailed deliberations made by the Project Proponent and the Consultant the EAC (Non-Coal Mining) under the provisions of EIA Notification, 2006 and its subsequent amendments, the EAC **recommended** the proposal for grant of Environmental Clearance to M/s Shree Cement Limited for Expansion in Production Capacity of Limestone from 3.8 to 12.5 Million TPA and Top Soil 0.1455 Million TPA, OB 1.1257 Million TPA (Total Excavation: 13.7712 Million TPA) along with one existing crusher of capacity 1200 TPH and installation of one additional proposed crusher of capacity 1200 TPH along with Wobbler in the mine lease area of 517.61 ha, located at Villages: Kodla & Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects: -

- i. This Environmental Clearance will be valid upto to the life of the mine i.e, upto 31.03.2043.
- ii. The Project Proponent intends to shift the crusher before starting the mining operation in the crusher area and for wet processing in future if any,

necessary prior permission shall be obtained from the MoEF&CC as per the provisions of EIA Notification, 2006 and its subsequent amendments therein.

- iii. The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.
- iv. The Project Proponent needs to take adequate measures to protect the other mine which is existing within the mine lease area from the impact of this instant mining activity and vice versa and access to the other mine should not be disturbed.
- v. The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.
- vi. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher shall be carried out at periodic intervals.
- vii. The Project Proponent shall ensure that the transportation shall not occur through village road or any other public road.
- viii. The Project Proponent needs to explore the possibility to reduce the water consumption by using non-toxic chemicals.
- ix. The Project Proponent needs to develop system of blending low grade limestone with high grade limestone.
- x. The Project Proponent needs to deploy manpower planning in connection with deployment of statutory manpower such as electrical and mechanical engineers.
- xi. The Project Proponent shall convert the area of 334.34 ha (proposed to be excavated) into water reservoir for benefit of the agriculture and local people. Fencing shall be made around the mined out pits to ensure safety and to prevent the inadvertent entry of men and cattle. The Project Proponent needs to develop plantation around the water reservoir in consultation with the State

Forest Department. Project Proponent also needs to monitor the quality of water and shall submit the report quarterly to the Ministry's Integrated Regional Office.

- xii. As committed by the Project Proponent, the PP needs to shift the proposed 25 MW Captive Solar Plant before start of mining operation in that area.
- xiii. The Project Proponent needs to complete the entire 7.5 m peripheral plantation, safety barrier plantation and gap plantation within three years from the start of mining operations. The Project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office.
- xiv. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 9.26 Cr. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xv. The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
- xvi. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.
- xvii. The budget of Rs 4.30 Cr to address the concerns raised by the public 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. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.

- xviii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xix. The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.
- xx. The Project Proponent needs to review any damage of the crops due to mining activity and accordingly the Project Proponent needs to undertake necessary steps to prevent any damage.
- xxi. The Project Proponent shall provide the rainwater harvesting structure at mine office and other infrastructures to recharge the ground water.
- xxii. The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the nearby villages at free of cost.
- xxiii. The Project Proponent needs to obtain the permission from CGWA before intersection of ground water.
- xxiv. 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. The preference shall be given to the local people for the purpose of employment.
- xxv. 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. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xxvi. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been

disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

1.2 Gothra Limestone Mine (ML No.: 47/2007) of M/s Shree Cement Limited for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA, Top Soil: 0.118 Million TPA, Waste: 20.0 Million TPA, ROM Reject: 0.358 Million TPA (Total Excavation: 27.298 Million TPA) and installation of crushers 1200 TPH & 400 TPH along with Wobbler in the mine lease area of 624 ha, located at Villages: Gothra, Choudhani, Devgaon & Kheswa Ki Dhani, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan - [File No. IA-J-11015/27/2022-IAII(NCM); Proposal No. IA/RJ/MIN/272197/2022; Consultant: M/s J.M. EnviroNet Pvt. Ltd] – Terms of Reference (Expansion)

The instant proposal is for grant of Terms of Reference for mining of Limestone in Gothra Limestone Mine (ML No.: 47/2007) of M/s Shree Cement Limited for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA, Top Soil: 0.118 Million TPA, Waste: 20.0 Million TPA, ROM Reject: 0.358 Million TPA (Total Excavation: 27.298 Million TPA) and installation of crushers 1200 TPH & 400 TPH along with Wobbler in the mine lease area of 624 ha, located at Villages: Gothra, Choudhani, Devgaon & Kheswa Ki Dhani, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan.

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

- i. The mine lease area is located between Latitude: 27°47'15.01"N to 27°48'43.12"N to Longitude: 75°20'4.83"E to 75°22'50.94"E. The mine lease area falls under the Survey of India Toposheet No: G43D5 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral beneficiation falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.
- iii. The proposal was earlier considered in the EAC (Non-Coal Mining) Meeting held during 28 - 29 June, 2022 wherein the EAC noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee observed that that there will be an instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC felt that the Environmental Management

Plan (EMP) which is in place cannot be fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee deferred the proposal. The Project Proponent submitted the information on 21.02.2023 in Parivesh portal. Accordingly, the proposal was reconsidered in the 12th EAC (Non-Coal Mining) meeting held during 21-22 March, 2023.

Based on observation of EAC, compliance of observation of EAC in its meeting held during 28 – 29 June, 2022 made by Project Proponent is detailed below:

S. No	Query by EAC (Non-Coal Mining)	Reply by the Project Proponent
1	The EAC was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee.	<p>The Project Proponent has submitted that the overburden in the mining lease area is much below and therefore to produce the limestone from the aforesaid mining lease, overburden needs to be removed having depth 50 - 60 meter below ground level (m bgl) to excavate the Limestone mineral.</p> <p>As per the recent Modified Mining Plan along with Progressive Mine Closure Plan approved by Regional Controller of Mines, IBM, Ajmer vide letter no. 584(4)(3)(1895)/2021 RCM-AJM, dated 03.03.2022 under MCDR 2017/MCR 2016 for 3 years (2021 – 22 to 2023 – 24), it is planned to excavate the Limestone 500 TPA (2021-22), 2000 TPA (2022-23) & 1.8 MTPA (2023-24) against the approved Limestone production capacity in EC letter i.e. 3.2 MPTA. It is planned to achieve the proposed expansion capacity of 6.822 MTPA during the year 2024-25.</p> <p>The Project Proponent has also submitted that expansion in the</p>

		<p>existing EC sanctioned capacity of integrated Cement Plant has been proposed due to the non - viability of earlier proposed cement plant capacity (as per EC) in the market and the EAC (Industry -1) has recommended the proposal for Environmental Clearance (EC) in its 24th EAC Meeting held during 28th February – 01st March, 2023. During the EAC (Industry – 1) meeting, the EAC asked about the source of fulfilment of raw material (limestone) for expansion in cement plant. The source of raw material (Limestone) to meet the total Limestone requirement for proposed expansion in Integrated Cement Plant was shown from the aforesaid mining project, the total Limestone requirement for proposed cement will be 6.822 Million TPA (for Clinker Plant: 6.75 Million TPA and Captive Power Plant: 0.072 Million TPA).</p> <p>Mining in the lease area is recently started for this mine from the year 2020-21 and work for mine face opening & removal of OB is done for small area, extension of mine face opening is being done and in process. The overburden in the mining lease area is found at average depth around 50 meters below the ground level.</p> <p>The excavation of Limestone i.e., 50% of the existing capacity of EC (3.2 MTPA), beyond the approved capacity mentioned in the approved Mining Plan of the project will be a violation of mining plan conditions. Further, the Project Proponent submitted that it will be not possible to produce the</p>
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		<p>Limestone in tune of 50% approved capacity in existing EC (3.2 MTPA) due to limitation of maximum Limestone excavation as mentioned in the approved mining plan i.e. 500 TPA (2021-22), 2000 TPA (2022-23) & 1.8 Million TPA (2023-24) against the EC approved Limestone production capacity i.e. 3.2 Million TPA.</p> <p>The Project Proponent has submitted that they have done total excavation including Topsoil, Overburden including mineral in tune of 51,92,676.18 TPA (5.19 Million TPA) and 1,58,78,880 TPA (15.87 Million TPA) in FY 2021-22 & 2022-23 (Till Dec. 2023), respectively, which is much more than the quantity to be handled from this Limestone mine w.r.t. Limestone production capacity mentioned in the existing EC i.e. 3.2 Million TPA.</p>
2	<p>Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion.</p>	<p>The Project Proponent has submitted that all the environment measures & conditions as mentioned in existing EC was verified in certified EC compliance report issued by Integrated Regional Office (IRO), Jaipur vide letter dated 18.05.2022. Site inspection was carried out by IRO on 20.04.2022.</p> <p>PP also submitted that about 4,910 no. of plants under greenbelt & plantation in 3.742 km peripheral length with 7.5 meters width (which is equal to 2.8 ha. area), against the total peripheral length of 11.43 km all around the mining lease area (which will be equal to 8.5 ha. area). Plantation will be carried out @ 2500 trees/ha with survival rate of 85%.</p>

		Native Plant species such as Neem, Shisham, Karanj, Siris, Bakain, Lisoda, Pilkhan, Arjun, Pipal, Ardu, Bargad, Gular, Mango, Gulmohar, Amaltas, Senjana, Shahtut, Gurhal, Semal, Saptaparni, Palash, Jamun, Dubai Tree, etc. is being/will be planted after consultation with local forest officer and as per CPCB guidelines.
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3.0 Observation and Recommendation of the Committee: -

The Project Proponent/Consultant presented the KML file to indicate the surface features in the vicinity of the mine lease area and study area of 10km radius. The EAC asked the Project Proponent whether the instant mine lease area is falling under the Aravalli range. The Project Proponent informed the EAC that the instant mine lease area does not fall under Aravalli range. The Project Proponent informed the EAC that the removal of OB started in the year 2020 only and the depth of the overburden is upto 50-60m. To excavate the Limestone, overburden having depth 50 - 60 m needs to be excavated. In the last two years, approximately 20 Million Tonnes of overburden has been excavated.

The EAC reiterated the earlier minutes of EAC meeting held during 28-29 June, 2022 wherein *“the Committee noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee observed that that there will be an instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC felt that the Environmental Management Plan (EMP) which is in place cannot be fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee deferred the proposal”*.

The EAC noted that the Project Proponent has not complied to the observations of EAC meeting held during 28-29 June, 2022. The EAC was of the view that handling and management of huge quantity of overburden is challenging task. The EAC opined that the pit stability is of much importance as the mine will be going much deeper. The EAC observed that as per approved modified mining plan dated 03.03.2022 for the period FY 2019-20 to 2023-24, the maximum production

achieved will be 1.8 MTPA only. The EAC was of the view that the Project Proponent needs to carryout mining for the existing EC capacity of 3.2 MTPA to ascertain the ground reality on geological condition, pit stability, handling and management of overburden from the view point of environment and safety. Thus, the EAC opined that the proposal may be considered only after the Project Proponent complying to the observations of EAC meeting held during 28-29 June, 2022 and then the Project Proponent should approach the Ministry for further consideration of proposal before the EAC. Based on the above discussions held, the EAC **deferred** the proposal.

1.3 Bommanalli Limestone Mine Block of M/s. The Ramco Cements Limited for mining of Limestone with proposed production capacity of 4.0 MTPA, of Limestone, Topsoil: 214321.00 m³, Overburden: 0.46 MTPA along with Crusher: 1000 TPH, Wobbler & Screen: 500 TPH, Belt conveyors: 1200 TPH in the mine lease area of 500.00 Ha., located at Bommanhalli and Kardal Villages, Chittapur Taluk, Kalaburagi District, Karnataka - [Proposal No: IA/KA/MIN/420431/2023, F.No: IA-J-11015/2/2023-IA-II(NCM); Consultant: M/s Ecomen Laboratories Pvt. Ltd.] - Terms of Reference (Auction Mine Block)

The instant proposal is for grant of Terms of Reference (Auction Mine Block) of M/s. The Ramco Cements Limited for mining of Limestone in Bommanalli Limestone Mine Block with proposed production capacity of 4.0 MTPA, of Limestone, Topsoil: 214321.00 m³, Overburden: 0.46 MTPA along with Crusher: 1000 TPH, Wobbler & screen: 500 TPH, Belt conveyors: 1200 TPH in the mine lease area of 500.00 Ha., located at Bommanhalli and Kardal Villages, Chittapur Taluk, Kalaburagi District, Karnataka.

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

- i. The mine lease area is located between Latitude: 17°02'11.45" N (Pillar A) to 17°03'10.78" N (Pillar D) to Longitude: 77°03'40.07" E (Pillar A) to 77°04'08.17" E (Pillar D). The mine lease area falls under the Survey of India Toposheet No: 56G/4 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.

iii. Details of Mine Lease:

S.no	Prospecting License / Letter of Intent (Lol)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent (LOI) for grant of	11.05.2022	Limestone	Lol is valid for	Govt. of Karnataka	500

mining lease vide DMG-17012/3/2022/2021-22/1827 in pursuant to Rule 10(2) of the Mineral (Auction) Rules, 2015			a period of 3 (three) years from the date of its issuance		
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iv. Land Use/Land Cover of the Mine Lease Area:

Private land	482.09 Ha
Government land	17.90 Ha
Forest land	-
Total Mining lease area (MLA)	500 ha
Private land for crusher, workshop & other infrastructure outside the MLA	-

v. Details of Mining Plan:

Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	279/1111/2022/BNG
	Date	29/11/2022
	Mineral & (Major/Minor)	Major
	Mine Lease Area, Ha	500Ha
	Validity	5 years from the date of executed Mining lease registration
Mining Parameters	Quantitative Description	
Method of Mining	Opencast and mechanized with deep hole drilling and blasting	
Drilling/Blasting	Yes	
Geological Reserves	463.9 Mill Tons	
Mineable Reserves	389.4 Mill Tons	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Topsoil:- 214321.00 m ³ (during first five years of Mining Plan period) Overburden:- 0.46MTPA	
Life of mine	97 years, however, the mine lease will be valid for 50 years, from the date of execution of lease registration	
Mine Bench Height & Bench Width	Bench height of 8m and Bench width of 8m.	
No. of Mine Benches	2	
Existing Depth, m bgl	-	

Ultimate Depth of Mining, m bgl	70m BGL
Ground Water Table, m bgl	80 m bgl
Details of ground water intersection	No intersection
Individual bench slope	80 ⁰
Overall pit slope	45 ⁰
Details of existing/ proposed Crusher	Crusher- 1000 TPH Wobbler & screen- 500 TPH Belt conveyors- 1200 TPH Bag filters at all transfer points
RoM output size	1 cubic meter from mine and 40 mm size after crushing / sizing.
Transportation details including capacity of dumper/tipper, mode of transport and distance	By 25 T Tippers/ Dumpers from mine to crusher & conveyor to the proposed factory. By rail for other states if required.
Generation of Topsoil/OB & its Management during plan period & conceptual period	214321.0 m ³ of topsoil
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	Ore to overburden ratio: - 1: 0.14 (during the first five years of the Mining Plan period). Surface dumping will be carried out as per the Approved Mining Plan. During the first five years of the Mining Plan period there will be no waste generation except the top soil generation which will be stacked at the predefined places as per the approved Mining Plan and will be used for the plantation.
Additional information (if any)	Old abandoned pit: 0.54 ha

vi. Water requirement:

Total water requirement	100 KLD	Fresh water	100KLD
		Treated water	-
Source	Ground water initially till 5 years and later from Rain harvested water from the excavated pits.		
Permission for withdrawal/ intersection along with details of grant and its validity	NA		

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

Particulars	Particular's Name	Distance & Directions
Village	Bommanalli	SE corner of the ML
School	Kardalli Govt Primary School	390 m, SE

Town	Chittapur	10 km, NNE
Railway Station/ Railway line	Sulahalli to Wadi,	0.5 km, NW
Water Bodies	Kardali Water Stream/ Dodda nallah Alhali Water Lake	0.2 km, W 1.63 km, SSE
Forest	Yadgir Reserve Forest	7.6 km, SSE

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

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	-
National Park	No	
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area (ESA)	No	
Coastal Regulation Zone (CRZ)	No	
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	No	
Wildlife Conservation Plan	No	

ix. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	0.5 Ha
Budget for green plant & plantation till the end of life of mine.	Total 5000 plants in the first five-year plan period over an area of 2 Ha. During conceptual stage, 66.10 Ha of virgin area, 7.68 Ha of Rehabilitated area under utility services and 13.4 Ha of Village safety barrier (Total 87.18 Ha) will be in green belt / afforestation. Total plantation- 139488 Plants @ 1600 plants/ Ha
Budget for nursery	Nursery will be developed for generating seedlings of native species. Budget will be addressed in EIA / EMP report

Details of existing plantation and its survival rate	75-85%
No. of tree cuts in the mine lease area and compensatory afforestation	40 no. of trees are to be removed.
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	6.75 Ha
50 m safety zone of nallah, roads, electric lines	59.35 Ha
500 m safety zones of nearest habitation villages	13.4 Ha
Rehabilitated areas under utility services	7.68 Ha

- x. The Project Proponent submitted that the Land acquisition is in progress.
- xi. The Project Proponent submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

xii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs 390 Crores
Employment (Nos)	251 Nos

3.0 Observation and Recommendation of the Committee: -

The Project Proponent/Consultant presented the KML file to indicate the surface features in the vicinity of the mine lease area and study area of 10km radius. The EAC on viewing the KML noted that village roads are passing through the mine lease area. The Project Proponent informed the EAC that one village road is passing through the mine lease area connecting Bommanhalli and Kardal Villages. Other roads are bullock cart road and there is no proposal for shifting the cart road. Kardali Water Stream/ Dodda nallah is located at a distance of 0.2 km, W from the mine lease area. The EAC asked the Proponent to show the location of the overburden dump. The Project Proponent informed the EAC that in the first plan period overburden is not anticipated. Topsoil is proposed to be dump in the SW of the mine lease area. The EAC opined that the management of Topsoil has to be addressed in the EIA/EMP report. The EAC asked the Project Proponent that whether there is any old pit existing within the mine lease area. The Project Proponent informed the EAC that an area of 0.54 ha old abandoned pit exists within the mine lease area. Crusher will be located in the southern side of the mine lease area. The EAC asked about the distance of the school nearby the mine lease area. The Project Proponent informed the EAC that the School is located more than 500m from the mine lease area.

The Project Proponent informed that there is no forest land involved in the mine lease area. There is no National Park, Wildlife Sanctuary, Tiger/Elephant

Reserve, ESZ within 10 km radius of the study area. There are two mines located in the study area of 10km radius. The EAC opined that the Project Proponent needs to submit the action plan to utilize the sub grade ore effectively from the view point of mineral conservation in the EIA/EMP report. The Project Proponent informed that the mineral transportation route will not be passing through any village road. The Cement plant will be commissioned at the 4th or 5th year. Till then the Limestone will be transported to the other end users. The EAC opined that the Project Proponent needs to work out the employment potential as per the production capacity and submit the same in the EIA report.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC (Non-Coal Mining) under the provisions of EIA Notification, 2006 and its subsequent amendments, the EAC **recommended** the proposal for grant of Terms of Reference (ToR) to M/s. The Ramco Cements Limited for mining of Limestone in Bommanalli Limestone Mine Block (Auction Mine Block) with proposed production capacity of 4.0 MTPA, of Limestone, Topsoil: 214321.00 m³, Overburden: 0.46 MTPA along with Crusher: 1000 TPH, Wobbler & screen: 500 TPH, Belt conveyors: 1200 TPH in the mine lease area of 500.00 Ha., located at Bommanhalli and Kardal Villages, Chittapur Taluk, Kalaburagi District, Karnataka 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 needs to submit the handling, storage and measures to be taken to preserve the Topsoil.
- ii. The Project Proponent needs to submit the action plan to utilize the sub grade ore effectively from the view point of mineral conservation in the EIA/EMP report.
- iii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- iv. 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.
- v. 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.

- vi. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the centre on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road.
- vii. The Project Proponent needs to submit the details of the nearest school and temple present in the vicinity of the mine lease area by mentioning the respective distances, strength of the school, working time of school, blasting time and the measures to be taken for control of ground vibration and fly rock.
- viii. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- ix. The Project Proponent needs to work out the employment potential as per the production capacity and submit the same in the EIA report.
- x. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. PP shall submit the measures to be taken for protection of Kardali Water Stream/ Dodda nallah (0.2 km, W) as per hydrological study due to mining activity.
- xi. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xii. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xiii. The Project Proponent needs to submit the engineering design for construction of retaining wall, garland drains, catch drains and siltation ponds along with the timeline.
- xiv. The Project Proponent needs to submit the greenbelt/afforestation development plan for undertaking plantation in the periphery of the mine lease

boundary, safety zone etc., The details of the no. of saplings proposed, type of saplings, spacing and the area to be covered including the cost and timeline for completion of plantation needs to be provided in the EIA report.

- xv. The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF)/Project Displaced Families (PDF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. PP need to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. PP also needs to submit the possession certificate and timeline for acquiring the land. Further, PP needs to submit the map demarcating the purchased land and non-purchased land if any at the time of appraisal of EC.
- xvi. The Project Proponent needs to look into CSR activities commensurate to the project cost.
- xvii. During the meeting, the EAC noted that the Project Proponent informed that an area of 0.54 ha old abandoned pit exists within the mine lease area. Hence, PP needs to submit a letter from the Department of Geology and Mining, Government of Karnataka 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 M/s.The Ramco Cements Limited or not?
- xviii. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

1.4 Mewasa Bauxite Mine of M/s Saurashtra Calcine Bauxite and Allied Industries with total excavation of 36,000 TPA (Bauxite: 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; Consultant: M/s Enkay Enviro Services Pvt. Ltd.] - Reconsideration of Environmental Clearance (Violation under SOP dated 07.07.2021)

The instant proposal is for mining of Bauxite in Mewasa Bauxite Mine of M/s Saurashtra Calcine Bauxite and Allied Industries with total excavation of 36,000 TPA (Bauxite: 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 Devbhumi Dwarka, Gujarat.

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

- i. The mine lease area is located between Latitude 22°13'52.5"N to 22°14'5.8"N and Longitude 69°18'51.4"E to 69°19' 2.8"E. The mine lease area falls under the Survey of India Toposheet No: 41 F/3, 41F/4-B6, 41F/6, 7 & 41F/8 and falls in Seismic Zone-IV.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the Marine National Park (Gulf of Kutch) Jamnagar is located at a distance of 3.340 km, NE from the mine lease area and appraised at the Central level.
- iii. Details of Previous EAC meeting:
 - a) The proposal was earlier considered in the EAC Meeting held during October 21-22, 2019 wherein 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.
 - b) Then, the proposal was again considered in the EAC Meeting held during 15-17 February, 2022 and during the meeting, the EAC noted that 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 assessment studies in a separate report. The Project Proponent submitted the information on 23.02.2023 and accordingly the proposal was reconsidered in the 12th EAC (Non-Coal Mining) meeting held during 21-22 March, 2023.

Based on observation of EAC, compliance of observations of EAC in its meeting held during 15-17 February, 2022 made by Project Proponent is detailed below:

S. No	Query by EAC (Non-Coal Mining)	Reply by the Project Proponent
1	<p>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.</p>	<p>The Project Proponent informed the EAC that the State Board has not issued the Consent to operate and the mines is closed for want of EC since 2014-15.</p> <p>PP also submitted that the Court case with respect to criminal case was registered on 03.04.2014 vide criminal case no. 130/ 2014; exhibit 48 at Hon'ble Judicial Magistrate First Class in Kalyanpur Court. The case was heard at length and Judgment was pronounced by Judgment no. 130/ 2014 dated 28.03.2017, wherein all the partners were ordered to deposit penalty charges of Rs. 20,000/- each.</p> <p>In pursuant to above judgment, an amount of Rs. 20,000/- has been deposited as fine by each partner (12 nos.), total amounting of Rs. 20,000 x 12 = Rs. 2,40,000/- to The Registrar, P.C.J & J.M.F.C. Court, Jam - Kalyanpur.</p>
2	<p>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</p>	<p>The Project Proponent has submitted that the damage to environment resulted due to mining activities in absence of valid statutory permissions like Environmental Clearance has been assessed by ascertaining weightage matrix index method. Four scale of matrix has been fixed ranging major negative (-3) to none (0). Mining operation carried out by manual opencast mining, no drilling and</p>

	<p>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.</p>	<p>blasting was done during mining. Surrounding air quality might have been impacted due to dust emissions and vehicle/machinery emissions. No groundwater intersection has been done and no any surface water contamination done due to mining activities. Thus, there was no impact on water environment. Mining activities contributed to noise. The impact is temporary and short term. The extent of damage was low to moderate. Bank guarantee against the remediation will be submitted after finalization of the cost for proposed measures and recommendation of the Hon'ble EAC committee of MoEF&CC, New Delhi. Budget for NRAP & CRAP as given under</p>			
<p>Natural Resource Augmentation Plan with Budgetary Provisions</p>					
<p>S. No</p>	<p>Activities</p>	<p>Total Cost in Rs. Lakh</p>	<p>Year & Budget (Rs. Lakh)</p>		
			<p>1st Year</p>	<p>2nd Year</p>	<p>3rd Year</p>
<p>1</p>	<p>Avenue Plantation outside the lease The total number of trees estimated is 100 with 3 rows of trees.(1000@each plant.)</p>	<p>3.0</p>	<p>1.0</p>	<p>1.0</p>	<p>1.0</p>
<p>2</p>	<p>Maintenance of Avenue Plantation(@ rupees per plantation)</p>	<p>3.5</p>	<p>1.5</p>	<p>1.0</p>	<p>1.0</p>
<p>3</p>	<p>Rain water harvesting in Mevasa, Virpur, Pindara villages Each structure will cost 7.0 lacs</p>	<p>21</p>	<p>7</p>	<p>7</p>	<p>7</p>

		Total	27.5	9.5	9.0	9.0
Community Resource Augmentation with Budgetary Provisions						
Sr.No.	Description	Total (Rs.)	Year & Budget (Rs.Lakh)			
			1 st Year	2 nd Year	3 rd Year	
1	Installation of solar lighting in villages Mewasa, Virpur, Pindara(Stand alone lights @ 3000/fixture 25 in each village with manpower cost additional)	3.0	1.0	1.0	1.0	
2	RO with Water Cooler at Govt. Schools; in villages Mevasa, Virpur, Pindara	3.0	1.0	1.0	1.0	
3	Computer in Govt. Schools in villages Mewasa, Virpur, Pindara	4.5	1.5	1.5	1.5	
4	Medical Check-up camps in villages Mewasa, Virpur, Pindara	4.5	1.5	1.5	1.5	
5	Plantation in nearby villages and outside lease area including black top road	15.0	5.0	5.0	5.0	
Total		30.0	10.0	10.0	10.0	
<p>Further, the Project Proponent submitted that the total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is Rs 57,50,000/-. Bank Guarantee</p>						

		amount of Rs. 57,50,000/ will be submitted to SPCB prior to the grant of EC.
3	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.	<p>The Project Proponent informed the EAC that the mine lease is operational since 1988-89 prior to EIA Notification 1994 till 2013-14. The production was increased from the base year (1993-94) in 1995-96, 1996-97, 1997- 98, 1999-2000, 2001-02, 2006-07, 2007-08, 2008-09 and attracting the violation of EIA Notification, 2006.</p> <p>PP also submitted that the major impact due to the Bauxite mining activity were on the land environment as its impact was on the topography, vegetation, and drainage pattern and soil quality. The native species present in the nearby area and in the transportation route have been affected temporarily. PP used Matrix Index method to assess the Probable damage on Land Environment and the score is -9.</p> <p>PP has submitted that during mining fugitive emission were generated due to transportation of mineral and due to mining activities. Mine is closed since 2014-2015. Fugitive emission is momentary and unquantified. Air Monitoring was conducted in Post Monsoon - October, November and December 2015 & one-month additional monitoring was conducted in May 2022. The baseline data Particulate matter concentration in 2015 at site was due to other mines operative by other parties which added up to the tail pipe and fugitive emission, the same are now operative with effective EMP and tree plantation is also being done to contain the emission. The results of the monitored data indicate that the ambient</p>

		<p>air quality of the region in general is in conformity with respect to norms of National Ambient Air Quality standards of CPCB, at all locations monitored. Study of air emission, GLC suggests the GLC concentration is in prescribed limit prescribed by CPCB standards. PP used Matrix Index method to assess the Probable damage on Air Environment and the score is -2.</p> <p>PP has submitted that during mining phase, water requirement for mine workers, sprinklers for dust suppression from water tanker supply from the nearby village 1 km away from the project site (4.0 KLD daily). Results of monitoring of surface water and ground water data suggests that parameter like Calcium, Magnesium, Chlorides, Fluoride, Sulphates and Nitrates is higher than prescribed limit other than that all parameter values are within prescribed limit by CPCB standards. But no historical evidences exist that this is caused by the mining activity. Water table is 10-12 m lower than the ground surface hence no impact on the ground water table. Surface and ground water have not been contaminated by the mining activity verified by the monitoring data shows that surface water quality and ground water quality data are in permissible limit the control measures will be adopted as there is no significant evidence of any contamination. PP used Matrix Index method to assess the Probable damage on Water Environment and the score is -1.</p> <p>PP has submitted that site development, Excavation activities, machinery used in excavation and vehicular movements</p>
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		<p>were the major sources of noise pollution. Mining area impact would have been insignificant. Since the impact was local and short term there is no significant evidence to assess the damage. PP used Matrix Index method to assess the Probable damage on Water Environment and the score is -4.</p> <p>One schedule-1 species (<i>Peafowl-Pavo cristatus</i>) were observed in study area and conservation plan has been prepared. Marine National Park and Marine Sanctuary is situated at a distance of 8.32 Km towards NNW and 3.340 Km towards NW respectively from the periphery of the mine site. Marine Sanctuary as Eco sensitive zone boundary is 2.80 km towards NW from lease area which is out of Eco sensitive zone. PP used Matrix Index method to assess the Probable damage on Biological Environment and the score is -4.</p> <p>PP has reported that the mining activity may have posed some impact due to noise generation, increased traffic, piling of waste etc. The control measures will be adopted as there is no significant evidence of any contamination. The project has a positive impact on the area in terms of socio-economic development. It has provided employment opportunities to the locals. Green cover will also develop in and around the project site that contributes in improving the aesthetics, arresting the dust emissions and absorbing the noise levels. PP used Matrix Index method to assess the Probable damage on Socio Economic Environment and the score is -3.</p>
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		Further, PP submitted that the total score of the probable damage on all environment is -23.																																																								
4	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.	<p>PP submitted the EMP comprising of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed as given below: -</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Particulars</th> <th>Capital Cost (Rs. In Lacs)</th> <th>Recurring Cost/Annum (Rs. In Lacs)</th> </tr> </thead> <tbody> <tr> <td>I.</td> <td colspan="3">Air Pollution Control & Management</td> </tr> <tr> <td></td> <td>One Atomized nozzle mounted on tanker for water sprinkling on haul roads.</td> <td>15.0</td> <td>1.0</td> </tr> <tr> <td>II.</td> <td colspan="3">Water Pollution Control, Management & Conservation</td> </tr> <tr> <td></td> <td>(Construction of garland drain and retaining wall and sedimentation pits to channelized the surface runoff.)</td> <td>10.0</td> <td>1.0</td> </tr> <tr> <td>III.</td> <td colspan="3">Ecological and Bio-diversity</td> </tr> <tr> <td></td> <td>Plantation Programme</td> <td>12.94</td> <td>0.50</td> </tr> <tr> <td></td> <td>Wild Life Conservation Plan</td> <td>7.0</td> <td>0.25</td> </tr> <tr> <td>IV.</td> <td>Rain Water Harvesting Structure</td> <td>6.0</td> <td>0.25</td> </tr> <tr> <td>V.</td> <td colspan="3">Social Aspects</td> </tr> <tr> <td></td> <td>Environmental Awareness Program (Vocational Training, SHG's etc.)</td> <td>2.0</td> <td>0.5</td> </tr> <tr> <td></td> <td>Social Forestry</td> <td>5.0</td> <td>5.0</td> </tr> <tr> <td>VI.</td> <td colspan="3">Public Hearing Action Plan (Community Development Activities)</td> </tr> <tr> <td></td> <td>Public Hearing Action Plan (CER Activities) Training Programme, Woman Skill Development Programme</td> <td>6.8</td> <td>0.5</td> </tr> </tbody> </table>	S. No.	Particulars	Capital Cost (Rs. In Lacs)	Recurring Cost/Annum (Rs. In Lacs)	I.	Air Pollution Control & Management				One Atomized nozzle mounted on tanker for water sprinkling on haul roads.	15.0	1.0	II.	Water Pollution Control, Management & Conservation				(Construction of garland drain and retaining wall and sedimentation pits to channelized the surface runoff.)	10.0	1.0	III.	Ecological and Bio-diversity				Plantation Programme	12.94	0.50		Wild Life Conservation Plan	7.0	0.25	IV.	Rain Water Harvesting Structure	6.0	0.25	V.	Social Aspects				Environmental Awareness Program (Vocational Training, SHG's etc.)	2.0	0.5		Social Forestry	5.0	5.0	VI.	Public Hearing Action Plan (Community Development Activities)				Public Hearing Action Plan (CER Activities) Training Programme, Woman Skill Development Programme	6.8	0.5
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			Total	64.74	9.0														
		<p>PP has submitted that the production of violation period varied from 5.33 % to 61.73 %. Thus, the total cumulative production obtained during the violation period was 1,29,656 Tonne in eight years as additional. The estimation of the penalty as determined by MOEF&CC vide its Office Memorandum dated 7th July 2021 is enumerated as under: The cost of the project attributable to the violation was about Rs. 75,00,000. The total turnover involved during the period of violation derived from the audited balance sheet is as under:</p> <table border="1"> <thead> <tr> <th>Financial Year</th> <th>Turnover</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>1995-96 to 2008-09</td> <td>Rs 7,39,39,319/-</td> <td>0.25% of turnover is Rs.1,84,484.2975/- say Rs 1,84,485/-</td> </tr> </tbody> </table> <p>Penalty amount as per SOP issued vide OM No F. No. 22-21 /2020-IA.III dated 7th, July, 2021</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Amount (Rs) Lac</th> </tr> </thead> <tbody> <tr> <td>1% of Project Cost incurred up to the date of filling of Application along with EIA/EMP Application</td> <td>Rs 30,000/-</td> </tr> <tr> <td>0.25 % of turnover during period of violation</td> <td>Rs 1,84,485/-</td> </tr> <tr> <td>Total</td> <td>Rs 2,14,485/-</td> </tr> </tbody> </table> <p>Penalty amount is Rs. 2,14,485/- as per SOP issued vide OM No F. No. 22-21 /2020-IA.III dated 7th, July, 2021.</p>				Financial Year	Turnover	Remark	1995-96 to 2008-09	Rs 7,39,39,319/-	0.25% of turnover is Rs.1,84,484.2975/- say Rs 1,84,485/-	Activity	Amount (Rs) Lac	1% of Project Cost incurred up to the date of filling of Application along with EIA/EMP Application	Rs 30,000/-	0.25 % of turnover during period of violation	Rs 1,84,485/-	Total	Rs 2,14,485/-
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Total	Rs 2,14,485/-																		
5	The remediation plan and the natural and community resource augmentation plan to be	The Project Proponent submitted the independent chapter for assessment of Ecological Damage, Remedial Action																	

	prepared as an independent chapter in the EIA report by the accredited consultants.	Plan and Natural & Community Augmentation Plan in the EIA report prepared by the accredited consultants.
6	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.	The Project Proponent submitted the Affidavit in a Stamp duty of Rs 50 bearing no: IN-GJ65770710278781U dated 26.11.2022 stating that the mining activity was undertaken in violation of the Section 21(5) of the Mines and Minerals (Development and Regulation) Act, 1957, Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986.
7	Project proponent to pay the compensation as per order 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 and Ors	The Project Proponent has submitted that the penalty of amount Rs. 2,14,485/- will be paid to State Pollution Control Board, other than 2,40,000 deposited in court.

3.0 Observation and Recommendation of the Committee: -

The Project Proponent/Consultant presented the KML file to indicate the surface features in the vicinity of the mine lease area and study area of 10km radius. The Project Proponent informed the EAC that the Marine National Park (Gulf of Kutch), Jamnagar is located at a distance of 3.340 km, NE from the mine lease area and the Final ESZ Notification on Marine National and Marine Sanctuary was declared on 22.08.2013. The mine lease area is outside the ESZ and in support of this letter has been obtained from the Chief Conservator Forest, Marine National Park, Forest Department vide letter dated 17.12.2016. The mine is closed since 2014 for want of Environmental Clearance (EC). The EAC on viewing the KML file noted that the water is stagnant in the working pits. The Project Proponent informed the EAC that the rainwater is being stagnant in the working pits and the water will be tested for its physio chemical and biological properties before discharge and the dewatered water will be utilized gainfully. The EAC asked about the details of Schedule-I species found in the study area. The Project Proponent informed that Peacock is the only Schedule-I species found in the study area and the letter has been obtained from the office of DFO, Jamnagar vide letter dated 16.02.2019. However, the Project Proponent has not submitted the list of flora and fauna indicating the type of Schedule-I species vetted by the Forest Department in Parivesh portal. The EAC also noted that the Wildlife Conservation Plan is not yet approved and the NOC from the CGWA is awaited. The EAC asked the Project

Proponent to submit the revised Wildlife Conservation Plan in Parivesh portal. The EAC also noted that the baseline data was carried out during Oct - Dec, 2015. The EAC opined that the Project Proponent needs to revalidate baseline data for one month and shall submit the inference on comparison of baseline data carried out during 2015 and 2023.

The Project Proponent informed the EAC that the Court case with respect to criminal case was registered on 03.04.2014 vide criminal case no. 130/ 2014; exhibit 48 at Hon'ble Judicial Magistrate First Class in Kalyanpur Court. The case was heard at length and Judgment was pronounced by Judgment no. 130/ 2014 dated 28.03.2017, wherein all the partners were ordered to deposit penalty charges of Rs. 20,000/- each. In pursuant to above judgment, an amount of Rs. 20,000/- has been deposited as fine by each partner (12 nos.), total amounting of Rs. 20,000 x 12 = Rs. 2,40,000/- to The Registrar, P.C.J & J.M.F.C. Court, Jam - Kalyanpur. The Project Proponent also informed the EAC that the penalty amount of Rs. 2,14,485 /- as per SOP issued vide OM No F. No. 22-21/2020-IA.III dated 7th July, 2021 will be deposited to the SPCB. Further, the Project Proponent informed the EAC that the budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is estimated as Rs 57,50,000/- and Bank Guarantee towards amount of Rs. 57,50,000/ will be submitted to SPCB prior to the grant of EC.

The EAC did not agree on the use of Matrix Index method by the Project Proponent to assess the ecological damage with respect to air, water, land and other environmental attributes. The EAC noted that the Project Proponent has not considered the total production for the purpose of calculation of ecological damage. The EAC also noted that the Project Proponent has not considered the parameter of SO₂ and NO₂ for the purpose of calculation of ecological damage due to transportation. The EAC asked the Project Proponent to revisit the damage assessment by referring to the standard methods. The EAC observed that the Project Proponent has not worked out the cost of Remediation. The EAC also asked the Project Proponent to revisit the plan for avenue plantation and rework the cost and timeline for the same. The EAC opined that the Project Proponent needs to revisit the activities proposed under Natural Resource Augmentation Plan (NRAP) and Community Resource Augmentation Plan (CRAP) in a more specific and monitorable manner. Based on the above discussions held, the EAC **deferred** the proposal for want of additional information: -

- i. The Project Proponent needs to revisit the damage assessment to the following attributes by considering the total production as mentioned below: -
 - a) Air Environment: PP needs to use either USEPA/AERMOD or CMPDI emission figures to assess the damage based on the emission rates in kg (EU 28 HANDBOOK/ EEA) on annualised basis and total damage value shall be arrived for the pollutants PM₁₀, PM_{2.5}, SO₂, NO₂ and CO.
 - b) Water Environment: PP needs to refer Ministry of Jal Shakti, (Central Ground Water Authority) Notification S.O 3289 (E) dated 24th September,

2020 for computing the damage occurred during operation period and non provision of surface water structures including toe drains/ garland drains and toe walls for the dumps and as well around the quarry and their total cost saved shall also be brought out.

- c) Ecology and biodiversity: Non-compliance of plantation for the past period and 10% of cost saved due to noncompliance of Wildlife Conservation plan budget for past period shall also be added.
 - d) Damage due to Noise and vibration if exceeded the norms.
 - e) Economic benefit accrued due to the production under violation and cost saved in EMP expenditure during this period @ 3% of the total shall also be included.
 - f) The damages so arrived at shall be covered under Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan and shall be budgeted for 3 years and the expenditure shall be specific and monitorable.
- ii. The Project Proponent needs to revisit the penalty provisions as per SOP dated 07.07.2021 by taking into account of actual project cost.
 - iii. The Project Proponent needs to submit the Land Use/Land Cover classification of the mine lease area and surface features like roads, nallah/ streams, existed in the area should be shown on historical imagery during the pre-mining operation, during operation and current status.
 - iv. The EAC noted that the baseline data was carried out during Oct - Dec, 2015. The EAC opined that the Project Proponent needs to revalidate baseline data for one month and shall submit the inference on comparison of baseline data carried out during 2015 and 2023.
 - v. The Project Proponent needs to revisit the plan for avenue plantation and rework out the cost and timeline for the same.
 - vi. The Project Proponent reply to the ADS Point no. vii w.r.t demand notices/ compensation as per order of Hon'ble Supreme Court dated 2nd August 2017 is not satisfactory. PP shall submit the present status in this regard.
 - vii. The Project Proponent submitted the order dated 06.10.2018 from the Govt. of Gujarat wherein the lease period has been extended till 02.09.2036. It is also mentioned that this extension is subject to the final decision on the notice no. MCR-102011-ML(Renew)-1294-Jamnagar-Chh-1, dated 12.12.2011 issued to the lease holder regarding termination of the said lease. Hence, the Project Proponent needs to submit the present status of the mine lease in this regard.

- viii. The Project Proponent needs to submit the list of flora and fauna indicating the type of Schedule-I species vetted by the State Forest Department in Parivesh portal.
- ix. The Project Proponent needs to submit the revised Wildlife Conservation Plan in Parivesh portal.
- x. The Project Proponent needs to submit the copy of approved mining plan dated 17.02.2021 for the period 2021-22 to 2025-26 in Parivesh portal.
- xi. The Project Proponent needs to submit the resubmit the Affidavit as per Ministry's OM dated 30.05.2018.

Day 2: 22nd March, 2023 (Wednesday)

2.1 Mukam Bauxite mine of M/s Chhattisgarh Mineral Development Corporation Ltd for mining of Bauxite with Total Excavation of 802977.5 TPA [384615.4 TPA (ROM) & OB 418362.1 TPA] in the mine lease area of 110.563 Ha, located at Village: Mukam, Tehsil- Bodla, District- Kabirdham, Chhattisgarh - [File. No: IA-J-11015/37/2022-IA-II(NCM), Proposal No: IA/CG/MIN/417404/2023; Consultant: M/s Overseas Min-Tech Consultants] – Environmental Clearance (EC)

The instant proposal is for grant of Environmental Clearance (EC) for mining of Bauxite in Mukam Bauxite mine of M/s Chhattisgarh Mineral Development Corporation Ltd with Total Excavation of 802977.5 TPA [384615.4 TPA (ROM) & OB 418362.1 TPA] in the mine lease area of 110.563 Ha, located at Village: Mukam, Tehsil- Bodla, District- Kabirdham, Chhattisgarh.

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

- i. The mine lease area is located between Latitude 22°22'45.72558"N to 22°23'26.25876"N and Longitude 81°08'49.47502"E to 81°10'16.84813"E. The mine lease area falls under the Survey of India Toposheet No: 64 F/3 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the Interstate Boundary of Madhya Pradesh is located at a distance of 4.48 km, W from the mine lease area and appraised at the Central level.
- iii. The details of the Terms of Reference (ToR) is given below: -

Date of application	Proposal No/ File No	Consideration by EAC	Details of ToR	Date of accord
10.10.2022	IA/CG/MIN/	9-11	Terms of Reference for	28.11.2022

	402430/2022 IA-J-11015/ 37/2022-IA- II(NCM)	November, 2022	mining of Bauxite in Mukam Bauxite mine of M/s Chhattisgarh Mineral Development Corporation Ltd with Total Excavation of 802977.5 TPA [384615.4 TPA (ROM) & OB 418362.1 TPA] in the mine lease area of 110.563 Ha, located at Village: Mukam, Tehsil-Bodla, District- Kabirdham, Chhattisgarh	
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iv. Details of Mine lease:

S.no	Letter of Intent (Lol)	Date of the grant	Name of the Mineral	Validity of Lol	Granted by	Mine lease area in Ha
1	Letter of Intent for grant of mining lease for a period of 50 years vide Lr No F3-3/2021/12, Nava Raipur	11.04.2022	Bauxite	Lol is valid till 27.03.2023	Government of Chhattisgarh	110.563 ha

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

Private Agriculture land	67.401 Ha
Government land	43.162 Ha
Forest land	Nil
Total Mining lease area (MLA)	110.563 ha
Private land for crusher, workshop & other infrastructure outside the MLA	NA

vi. Mining Plan Details:

Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	कबिरधाम/बाक्स/खयो-1335/2022-रायपुर
	Date	07.09.2022
	Mineral	Bauxite (Major Mineral)
	Mine lease area	110.563 Ha
	Validity	Five Years
Mining Parameters	Quantitative Description	

Method of Mining	Opencast mechanized with drilling and blasting		
Drilling/Blasting	Yes		
Geological Reserves	50,26,659.22 Tonnes		
Mineable Reserves	32,13,288.26 Tonnes		
Life of mine	11 years. The life of the mine will likely to be increased after the proposed exploration is completed.		
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	The proposed capacity of the mines is 384615.4TPA bauxite with an area 110.563 Ha & 418362.12 TPA of OB, 22061.83m ³ of topsoil and 96153.85 TPA of mineral reject will generate in the five-year plan period.		
Bench Height	3 m		
Bench Width	3 m		
No. of mine benches	2		
Existing Depth, m bgl	-		
Ultimate Depth of Mining, m bgl	13m		
Ground Water Table, m bgl	30 meters below ground level		
Details of ground water intersection	Up to the life of the mine, there is negligible chance of working going beyond 18 m depth, hence there will not be intersection with ground water.		
Individual bench slope	45°		
Overall pit slope	60°		
Details of existing/proposed Crusher	NA		
Mineral Beneficiation	The sizing and sorting of saleable grade bauxite will be carried out by manual labours and no beneficiation is required		
RoM output size	100-250 mm		
Transportation details including capacity of dumper/tipper, mode of transport and distance	Description	Capacity	Quantity
	Drilling Machine (DTH)	100mm	5 m/c Standby 2
	Excavator & loading equipment	2 m ³	2
	Bull dozer	1 m ³	1
	Dumpers	18 t	10 standby 2
Generation of Topsoil/OB & its Management during	The Project Proponent has submitted that general practice is to scrap the top soil separately by dozer, or excavator dumper combination and to dump temporarily to earmarked		

<p>plan period & conceptual period</p>	<p>places where it will be used and then used for spreading over the already backfilled and levelled area. When the backfilled and levelled area will readily available then the top soil scrapped will be directly used for spreading over in such area. Therefore, almost the land will be backfilled.</p> <table border="1" data-bbox="528 405 1398 719"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>Topsoil Generated (m³) (A)</th> <th>Topsoil Utilized (m³) (B)</th> <th>Topsoil Stored (m³) (A-B)</th> <th>Estimated Expenditure (INR)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Year 1</td> <td>5722.14</td> <td>5722.14</td> <td>0</td> <td>3000</td> </tr> <tr> <td>2</td> <td>Year 2</td> <td>3706.18</td> <td>3706.18</td> <td>0</td> <td>2000</td> </tr> <tr> <td>3</td> <td>Year 3</td> <td>4246.01</td> <td>4246.01</td> <td>0</td> <td>5000</td> </tr> <tr> <td>4</td> <td>Year 4</td> <td>11358.85</td> <td>11358.85</td> <td>0</td> <td>8000</td> </tr> <tr> <td>5</td> <td>Year 5</td> <td>22061.83</td> <td>0</td> <td>22061.83</td> <td>16000</td> </tr> </tbody> </table>	S. No.	Year	Topsoil Generated (m ³) (A)	Topsoil Utilized (m ³) (B)	Topsoil Stored (m ³) (A-B)	Estimated Expenditure (INR)	1	Year 1	5722.14	5722.14	0	3000	2	Year 2	3706.18	3706.18	0	2000	3	Year 3	4246.01	4246.01	0	5000	4	Year 4	11358.85	11358.85	0	8000	5	Year 5	22061.83	0	22061.83	16000												
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<p>Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period</p>	<p>The Project Proponent has submitted that during the first five years, about 23.014 Ha area will be covered as mining pit, out of this about 8.14 Ha area will be backfilled by OB and waste. Up to the life of the mine, about 68.01 Ha area will be covered as a pit and 40.716 Ha area will remains as virgin land within the statutory barriers and no-ore zone. Almost the entire pit area of 68.01 Ha. will be backfilled and reclaimed. This means 40.716 Ha. area will be virgin i.e. undisturbed land and 68.01 Ha. area will be backfilled levelled, which shall be returned back to their original owner for agriculture. There will be continuous backfilling and returning of land to the owners as the mining operation continues.</p> <table border="1" data-bbox="528 1249 1398 2022"> <thead> <tr> <th>S. No</th> <th>Year</th> <th>Dump Id</th> <th>Type of Dump</th> <th>Proposed Area (ha)</th> <th>Height (m)</th> <th>Total Dump Quantity (m³)</th> <th>New Dump Location</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Year 1</td> <td>Dump-1</td> <td>Waste Dump</td> <td>0.25</td> <td>10</td> <td>34147.08</td> <td>X=51738 5.8998,</td> </tr> <tr> <td>2</td> <td>Year 2</td> <td>Dump-1</td> <td>Waste Dump</td> <td>0.25</td> <td>10</td> <td>44308.37</td> <td>Y=24759 10.3385</td> </tr> <tr> <td>3</td> <td>Year 3</td> <td>Dump-1</td> <td>Waste Dump</td> <td>0.25</td> <td>10</td> <td>56966.52</td> <td>X=51737 5.9340,</td> </tr> <tr> <td>4</td> <td>Year 4</td> <td>Dump-1</td> <td>Waste Dump</td> <td>0.25</td> <td>10</td> <td>12791 9.44</td> <td>Y=24759 16.1262</td> </tr> <tr> <td>5</td> <td>Year 5</td> <td>Dump-1</td> <td>Waste Dump</td> <td>0.25</td> <td>10</td> <td>21000 6.52</td> <td>X=51734 7.3113, Y=24759 26.5441 X=51739 1.5199, Y=24759 00.1375 X=51738 8.6809,</td> </tr> </tbody> </table>	S. No	Year	Dump Id	Type of Dump	Proposed Area (ha)	Height (m)	Total Dump Quantity (m ³)	New Dump Location	1	Year 1	Dump-1	Waste Dump	0.25	10	34147.08	X=51738 5.8998,	2	Year 2	Dump-1	Waste Dump	0.25	10	44308.37	Y=24759 10.3385	3	Year 3	Dump-1	Waste Dump	0.25	10	56966.52	X=51737 5.9340,	4	Year 4	Dump-1	Waste Dump	0.25	10	12791 9.44	Y=24759 16.1262	5	Year 5	Dump-1	Waste Dump	0.25	10	21000 6.52	X=51734 7.3113, Y=24759 26.5441 X=51739 1.5199, Y=24759 00.1375 X=51738 8.6809,
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Stack Details – Proposed on Site							
S. No.	Year	Stack ID	Type of Stack	Proposed Area (ha)	Height (m)	Total Stack Quantity (m ³)	New Stack Location
1	Year 1	Stack-1	Ore Stack	0.49	3	5722.14	X=517480.8582 Y=2475797.6728
2	Year 2	Stack-1	Ore Stack	0.49	3	3706.18	X=517480.8582 Y=2475797.6728
3	Year 3	Stack-1	Ore Stack	0.49	3	4246.01	X=517471.0387 Y=2475769.6698
4	Year 4	Stack-1	Ore Stack	0.49	3	11358.85	X=517560.4557 Y=2475751.4214
5	Year 5	Stack-1	Ore Stack	0.49	3	22061.83	X=517480.8582 Y=2475797.6728

vii. Water requirement:

Total water requirement (KLD)	6.5 KLD	Dust suppression	0.425 KLD
		Greenbelt	3.750 KLD
		Domestic	2.325 KLD
Source	Local Supplier through Gram Panchayat		
Permission for withdrawal/ intersection along with details of grant and its validity	The Project Proponent has submitted that the water required is mainly for dust suppression and drinking and other domestic purpose during mining operations. Drinking & domestic water will be fulfilled from tube well while other will be met from authorized water supplier (NoC already taken from concerned Gram Panchayat).		

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

Particulars	Particular's Name	Distance & Directions
Village	Mukam	approx. 0.5 km. from project boundary
Town	Kawardha	62 km
National Highway	NH- 12 Bodla to Daldali	42 km.
Railway station/ Railway line	Bilaspur Raipur	110 km approx 135 km approx
Nearest water	ManaiNadi	3.1km, NWN

bodies	LilariNadi Hanp River	2.6 km, NW 4.4 km, ENE
Forest	RF No. 17 (54 M), RF No. 23 (50 M) and RF No. 24 (103 M)	

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

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	The Project Proponent has submitted that the mine lease area is either private land or Govt. Revenue land. In support of this, Certificate from the Chief Conservator of Forest has been obtained on 28.02.2023 regarding non involvement of forest land.
National Park	No	Phen Wildlife Sanctuary, Buffer Zone of Kanha National Park and Kanha-Achanakmar Tiger Corridor lies in the proximity of 10 km radius periphery of mines lying within the State of Madhya Pradesh which is about 5kms from the site of mines.
Wildlife Sanctuary	Yes	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)	No	
Coastal Regulation Zone (CRZ)	No	The project site is not falling near to any LTL, HTL, and CRZ area.
Schedule-I species (No.s and name of schedule-I species with authenticated letter) & Wildlife Conservation Plan	Yes	The Project Proponent has submitted that the list of Schedule-1 species is duly authenticated by CWLW. The detailed study has been carried out and Wildlife Conservation and Management Plan has been prepared and submitted to PCCF (wildlife), Chhattisgarh and Director, Kanha Tiger Reserve, Mandla (M.P.) for their approval.

x. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	2.00 ha area for greenbelt /plantation and 250 saplings per year i.e., 1250 saplings
Budget for green plant& plantation till the	Rs 1.0 lakh

end of life of mine.	
Budget for nursery	-
No. of tree cuts in the mine lease area and compensatory afforestation	Nil

xi. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)			
Period of baseline data collection	March to May, 2022		
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer		
Predominant Wind direction (From)	North		
Ambient Air Quality (no. of locations) and results	No. of Locations	Parameters	Results
	7	PM10	51.6 to 66.2 µg/m ³
		PM2.5	19.2 to 30.6 µg/m ³
		SO2	8.1 to 12.8 µg/m ³
		NO2	9.8 to 16.7 µg/m ³
Noise level (no. of locations) and results	No. of Locations	Parameters	Results
	7	During Day Time [Leq dB(A)]	50.4 to 64.8
		During Night Time [Leq dB(A)]	36.8 to 51.2
Water Quality (no. of locations) and results	Ground water quality – 7 No.s		
	Parameters		Results
	pH		7.32 – 7.76
	TDS (mg/l)		296 - 340
	Fluoride (mg/l)		0.42 – 0.88
	Sulphate (mg/l)		36 - 82
	Calcium (mg/l)		45.6 – 75.3
	Magnesium (mg/l)		18.0 – 27.2
	Surface Water Quality - 2 No. s		
	pH		7.4 – 7.6
	TDS (mg/l)		292 – 352
	COD (mg/l)		122 – 126
	DO (mg/l)		-
	BOD (mg/l)		26-28
	Magnesium (mg/l)		11.6-19.4
Soil Quality (no. of locations) and results	No. of Locations	Parameters	Results
	07	pH	7.56 – 7.92

		Conductivity, mS/m	42 - 52
		Texture	Sandy Loam
		Organic Matter (%)	0.98 to 1.18 %
		Available Nitrogen, %	0.042 -0.058
		Available Phosphorus, kg/ha	26.5 – 32.4
		Available Potassium, kg/ha	88-176
Traffic study (no. of locations) and results	The Project Proponent reported that the traffic study was carried out on metal road project site to NH-130A via Daldali village which is in South-east after traversing 40 km. Post project PCU will be 1235 PCUs (1136 PCUs Existing + 99 PCUs Post) on Project site to NH-130A metal road. The LOS value from the proposed mine may be “very good” for Project site to NH-130A Road. So, the additional load on the carrying capacity of the concern roads is not likely to have any significant adverse effect.		

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	The Pioneer (Dec 27, 2022) Nav Pradesh (Dec 27, 2022)
Date of PH	30/01/2023
Venue	Government Primary School's ground, Village: Mukam, Tehsil: Bodla, Dist: Kabirdham (Chhattisgarh)
Chaired by	Additional Collector of Kabirdham
Main issues raised during PH	Regarding leveling of land after mining Regarding consent for Bauxite mine Regarding consent on providing Employment and compensation Employment to the local people Regarding not giving land for mining
Budget proposed for addressing issues raised during PH over 3 years	Rs 18 Lakhs

xiii. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent has submitted that R & R is not applicable, As there is neither any displacement of any family nor there is destruction of any houses/dwellings. The Additional Collector, Kabirdham on 06.02.2023 issued the Certificate regarding non applicability of R&R policy.
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xiv. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking by way of Affidavit dated 23.11.2022 stating that since it is a fresh mining lease there is no litigation pending relating to this project before any court of law.
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xv. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an undertaking by way of Affidavit dated 23.11.2022 stating that no illegal mining activity has been or is being carried out in the mining lease in violation of the Mines and Minerals (Development and Regulation) Act, 1957, Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and other relevant laws.
Undertaking by Project Proponent in EIA/EMP report	The Project Proponent has submitted an undertaking by way of Affidavit dated 23.11.2022 stating that the data and information given in the application and enclosures and other documents are true to be best of their knowledge and belief and they are aware that if any part of the data and information is found to be false or misleading at any stage, the project will be rejected and clearance given if any to the project will be revoked at our risk and cost.

xvi. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Lakh)	Recurring cost (Lakhs/annum)
Pollution control & Dust suppression	2.0	1
*Air, water, soil and noise monitoring	10	2.0
Plantation and green belt development	2.0	3.0
Health checkups and Emergency support	1.0	1.0
Safety Drills and PPEs	2.0	1.5

Expenditure on skill development Trainings	1.0	1.0
Reclamation	-	1.5
Total	18	10

xvii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	0.36
Project Cost	9
Employment (No.s)	93 number

3.0 Observation and Recommendation of the Committee: -

The Project Proponent/Consultant presented the KML file to indicate the site features in the vicinity of the mine lease area and study area of 10km radius. The Project Proponent informed the EAC that the instant proposal attracts the general conditions as the Interstate Boundary of Chhattisgarh-Madhya Pradesh is located at a distance of 4.48 km, W from the mine lease area. Mukam Village is located approx. at a distance of 0.5 km from the mine lease area. The proposed mineral transportation will not be passing through the village road. The EAC noted that the Project Proponent has obtained the Letter of Intent (LoI) for the grant of mining lease from the Government of Chhattisgarh vide letter dated 11.04.2022 for mining of mineral bauxite over an area of 110.563 Ha in Village –Mukam, District- Kabirdham and the LoI is valid upto 27.03.2023.

The Project Proponent informed the EAC that the Phen Wildlife Sanctuary, Buffer Zone of Kanha National Park and Kanha-Achanakmar Tiger Corridor lies in the proximity of 10 km radius periphery of mines lying within the State of Madhya Pradesh which is about 5kms from the site of mines and not within the State of Chhattisgarh. The EAC also noted that the Final Notification declaring Eco Sensitive Zone around Kanha NP and Phen Sanctuary, Madhya Pradesh was declared by the Ministry vide S.O 1198(E) dated 12.03.2021. The Eco-Sensitive Zone covers the entire notified buffer area of Kanha Tiger Reserve around Kanha National Park and Phen Wildlife Sanctuary. The Eco-Sensitive Zone shall be to an extent of zero kilometres (due to interstate boundary) to 30 kilometres around the boundary of Kanha National Park, the Buffer Zone, and the Phen Wildlife Sanctuary. The EAC asked the Project Proponent to submit the action plan to monitor the movement of tigers in the vicinity of the mine lease area and also asked the Project Proponent to ensure the tiger corridors passing in the study area from Digital Support System (DSS) available in NTCA website. The EAC also asked the Project Proponent to submit the letter from the Forest Dept, Madhya Pradesh regarding the distance of the Tiger Corridor and ESZ along with the authenticated map and authenticated list

of flora and fauna since the study area of the 10km radius of the buffer zone falling in the State of Madhya Pradesh. The EAC also noted that the Project Proponent has submitted that Schedule-I species found in the study area and but the Project Proponent has not submitted about the details about the Schedule-I species found in the study area of 10km radius & also not uploaded the Wildlife Conservation Plan in the Parivesh portal. The EAC opined that the PP needs to submit the list of flora and fauna vetted by the State Forest Dept, Chhattisgarh by clearly indicating the type of Schedule species found in the study area of 10km radius and also the PP needs to upload the Wildlife Conservation Plan in the Parivesh portal.

The EAC asked about the proposed bench height of the mine. The Project Proponent informed the EAC that the height of the bench will be 6m. The EAC asked the Project Proponent to explore the possibility of deploying the Ripper and Dozer combination to eliminate the drilling and blasting in view of close proximity of the Mukam village and the Forest/Wildlife. The Project Proponent informed the EAC that the ground water table is found at a depth of 30m bgl and the ultimate depth of the mining will be upto 13m and the mining activity will not intersect with groundwater table. The EAC noted that the Project Proponent has submitted the action plan to address the concerns of the public hearing under Corporate Environmental Responsibility (CER) @ 2% of Project Cost. The EAC was of the view that the Project Proponent needs to submit the activity-wise time-bound action plan on the issues raised and commitment made during public hearing in compliance of the Ministry's OM F.No.22-65/2017-IA.III dated 30thSeptember, 2020 over a period of 3 years. The EAC observed that the Project Proponent has not submitted the action plan for rehabilitation of mined out areas and year wise backfilling plan and also the employment scheme/skill development plan to be adopted for employing the local persons. The EAC asked the Project Proponent to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the centre on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road. The EAC also asked the Project Proponent to submit the map indicating the location of garland drains, retaining walls and silt check dam along with the timeline for construction.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC observed that the Project Proponent/Consultant was unable to bring out the technical details before the EAC and the performance of the Project Proponent/Consultant is not satisfactory. The EAC felt that the issues related to Wildlife and measures for protection of tiger have not been properly addressed and due to sensitivity of the Phen Wildlife Sanctuary, BufferZone of Kanha National Park and Kanha-Achanakmar Tiger Corridor, it is necessary to ascertain the ground reality. The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members, officers from MoEF&CC and representative of the National Tiger Conservation Authority (NTCA). The EAC opined that the

Ministry may constitute a sub-committee and submit its report to enable the committee to take a decision on the proposal. Based on the above discussions held, the EAC **deferred** the proposal and was of the view that proposal may only be considered only after the submission of the following additional information along with the report of site visit by the subcommittee: -

- i. The Project Proponent needs to submit the valid Letter of Intent (since the Lol expiring on 27.03.2023) for further consideration of the proposal before the EAC.
- ii. The Project Proponent needs to submit the action plan for rehabilitation of mined out areas and year wise backfilling plans and sections along with the timeline.
- iii. The Project Proponent needs to explore the possibility of deploying the Ripper and Dozer combination to eliminate the drilling and blasting in view of close proximity of the Mukam village and the Forest/Wildlife.
- iv. The Project Proponent needs to submit the action plan to monitor the movement of tigers in the vicinity of the mine lease area and the Project Proponent needs to ensure the tiger corridors passing in the study area from Digital Support System (DSS) available in NTCA website.
- v. The Project Proponent needs to submit the letter from the State Forest Dept, Madhya Pradesh regarding the distance of the Tiger Corridor and ESZ along with the authenticated map and authenticated list of flora and fauna since the study area of the 10km radius of the buffer zone falling in the State of Madhya Pradesh. PP also needs to submit the letter from the State Forest Dept, Chhattisgarh regarding the list of flora and fauna by indicating the type of Schedule species found in the study area.
- xix. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the centre on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road.
- vi. The Project Proponent needs to submit the map indicating the location of garland drains, retaining walls and silt check dam along with the timeline for construction.
- vii. The Project Proponent needs to the revise the activity-wise time-bound action plan on the issues raised and commitment made during public hearing in compliance of the Ministry's OM F.No.22-65/2017-IA.III dated 30th September, 2020 over a period of 3 years. The Project proponent shall ensure that the

activities proposed under the public hearing is different from the CSR activities.

- viii. The Project Proponent needs to submit the employment scheme/skill development plan to be adopted for employing the local persons in mine and its action plan to implement the same. Further, PP shall provide the details of employment to be provided to the local people with timeline.
- ix. The Project Proponent needs to submit the Wildlife Conservation and Management Plan in Parivesh portal.
- x. PP shall submit dust pollution mitigation measure for villages nearby the mine lease (eg. Mukam Village is located approx. at a distance of 0.5 km from the mine lease area).
- xi. The site visit report of the subcommittee.

2.2 Extension of validity of Environmental Clearance (EC) dated 11.06.2021 of Garbham Manganese Ore Mine (264.540 Ha, 50 TPD/18000 TPA) of M/s Rashtriyalspat Nigam Limited for dump access over an area of 10 Ha with Manganese production of 50 TPD and to setup screening plant with a handling capacity of 40 MT/hour powered by Diesel Generator from manual to screening located at Village Garbham, Tehsil Merakamuddam, District Vizianagaram, Andhra Pradesh – [F.No: J-11015/60/2020-IA-II(M), Proposal No: IA/AP/MIN/180932/2020; Consultant: M/s SV Enviro Labs & Consultants] - Extension of validity of Environmental Clearance (EC)

The instant proposal is for Extension of validity of Environmental Clearance (EC) dated 11.06.2021 of Garbham Manganese Ore Mine (264.540 Ha, 50 TPD/18000 TPA) of M/s Rashtriyalspat Nigam Limited for dump access over an area of 10 Ha with Manganese production of 50 TPD and to setup screening plant with a handling capacity of 40 MT/hour powered by Diesel Generator from manual to screening located at Village Garbham, Tehsil Merakamuddam, District Vizianagaram, Andhra Pradesh.

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

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” as the mine lease area is greater than 250 Ha and appraised at the Central level.
- ii. The Project Proponent obtained Environmental Clearance (EC) vide EC letter dated 11.06.2021 for dump access over an area of 10 Ha in Garbham Manganese Ore Mine (264.540 Ha, 50 TPD/18000 TPA) of M/s

- Rashtriyalspat Nigam Limited with Manganese production of 50 TPD and to setup screening plant with a handling capacity of 40 MT/hour powered by Diesel Generator from manual to screening located at Village Garbham, Tehsil Merakamudldam, District Vizianagaram, Andhra Pradesh. One of the specific conditions (iii) is that *“As the mine lease is valid upto 07.10.2022, Environmental Clearance (EC) shall be valid upto the lease period only”*.
- iii. Now, the Project Proponent has submitted the proposal for extension of validity of Environmental Clearance (EC) in Form-6 vide online proposal no: IA/AP/MIN/180932/2020 dated 30.11.2022 as the Environmental Clearance (EC) expired on 07.10.2022.
 - iv. The Project Proponent has submitted that the Industries & Commerce Department, Govt. of A.P vide G.O. Ms. No. 214 dated 08.08.2008 for a period of 20 years and the deemed extension lease period was valid up to 07.10.2022. PP also submitted that the mine lease is deemed to be renewed as per sub section (6) of Section 8A of MMDR Amendment Act, 2015 up to the year 07.10.2032. ADMG, Vizianagaram has recommended the extension of validity period to Director Mines and Geology, Ibrahimpnam, Krishna District vide Letter. No. 3527/M/2001, Dt.17.04.2017 & 03.04.2021.
 - v. Further, the Project Proponent also submitted the letter from the Govt. of Andhra Pradesh, Dept. of Mines and Geology, Ibrahipatnam vide Lr.No: 4471387/D2/2022 dated 18.11.2022 stating that in the present case, the original grant was from 08.10.1982. According to as per Section 8-A (3) of New M&M (D&R) Amendment Act, 2015 the lease period shall be considered and deemed to have been granted for a period of 50 years. Accordingly, the lease period shall be extended upto 07.10.2032. A proposal was submitted to the Government of A.P requested to extending the lease period upto 07.10.2032 which is under consideration. In view of the circumstances stated above, the Competent Authority/Chairman, MoEF&CC New Delhi is requested to consider the request of lease holder M/s. Rashtriyalspat Nigam Limited (RINIL) for extension of Environmental Clearance validity period upto 07.10.2032, since as per Section 8-A (3) of New M&M (D&R) Amendment Act, 2015 the lease period shall be extended to 07.10.2032.
 - vi. The Project Proponent has submitted the Review of Mining Plan approved by Indian Bureau of Mines (IBM), Hyderabad vide Letter No. AP/VZNR/MP/Mn-81/Hyd., Dated: 17.05.2022 for the period upto2022-2023(08.10.22022 to 31.03.2023) to 2026-2027 with a life of mine for another 33 years.
 - vii. The Project Proponent has submitted that in line with EC order validity period, M/s. Rashtriyalspat Nigam Limited (RINL) had stopped the excavation of Manganese Ore from the old dumps since 08.10.2022. The Project Proponent has submitted the authenticated past production details issued by the Dept. of Mines and Geology vide Lr.No: 3527/M/2001 dated 29.11.2022 for the period 2021-22 to 2022-23 (upto 7th October, 2022).

3. Observation and Recommendation of the Committee: -

During the EAC (Non-Coal Mining) meeting, the Project Proponent informed the EAC that the Environmental Clearance (EC) was obtained vide EC letter dated 11.06.2021 for dump access over an area of 10 Ha in Garbham Manganese Ore Mine (264.540 Ha, 50 TPD/18000 TPA) with Manganese production of 50 TPD and to setup screening plant with a handling capacity of 40 MT/hour powered by Diesel Generator from manual to screening and EC was valid upto 07.10.2022 as the mine lease was valid upto 07.10.2022. The EAC noted that the Project Proponent has submitted the proposal for extension of validity of EC on 30.11.2022 i.e., after the expiry of the EC on 07.10.2022.

The EAC reiterated the Ministry's Notification S.O 2944(E) dated 14.09.2016 wherein it has been mentioned that *“(b) more than thirty days after the validity period of Environmental Clearance but less than ninety days after such validity period, then, based on the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change or Chairman, as the case may be”*.

The EAC asked the Project Proponent about the status of the validity of the mine lease as on date. The Project Proponent informed the EAC that the proposal for extending the lease period upto 07.10.2032 is under consideration with the Govt. of Andhra Pradesh. The EAC was of the view that as on date the validity of the mine lease is in question. The EAC opined that the instant proposal cannot be considered further without obtaining the extension of mine lease period from the State Govt. of Andhra Pradesh. Based on the above discussions held, the EAC **deferred** the proposal and was of the view that the proposal may be considered only after submission of the following additional information: -

- i. The Project Proponent needs to give detail justification that why there is a delay in submission of the proposal for extension of validity of Environmental Clearance.
- ii. The Project Proponent needs to submit the extension of valid mine lease document for the period upto 07.10.2032 from the Govt. of Andhra Pradesh.
- iii. PP shall submit the Certified Compliance Report of previous ECs and amendments (if any) through Ministry's IRO.
- iv. The Project Proponent needs to submit dust and noise mitigation measures during screening.
- v. Project Proponent needs to adopt dust suppression measures during loading from the dump.

ADDITIONAL AGENDA:

2.3 Expansion in Environmental Clearance of M/s The Sandur Manganese & Iron Ores Limited for increase in Iron Ore production from 1.60 to 4.50 MTPA retaining the Manganese Ore production at 0.55 MTPA with total excavation of 26.42 MTPA (Iron Ore ROM - 7.85 MTPA, Manganese Ore ROM - 1.34 MTPA, Top Soil - 0.19 MTPA & Waste - 17.04 MTPA) along with proposed 7.0 MTPA Ore Beneficiation Plant, 1.2 km Down Hill Conveyor System, & 0.15 MTPA Crushing & Screening Plant in the mine lease area of 1860.10 Ha (ML No: 2678), located at Villages Deogiri, Subbarayanahalli, Ramghad & Kammathuru, Tehsil: Sandur, District: Ballari, Karnataka - [File.No: IA-J-11015/45/2021.IA-II(M), Proposal No: IA/KA/MIN/412694/2022] - Environmental Clearance (Expansion)

The instant proposal was considered in the 9th EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 and after detailed deliberations made by the Project Proponent and the Consultant, the EAC (Non-Coal Mining) recommended the proposal under the provisions of EIA Notification, 2006 for grant of Environmental Clearance (EC) to M/s The Sandur Manganese & Iron Ores Limited for mining of Iron Ore and Manganese Ore for Expansion of Iron Ore production from 1.60 to 4.50 MTPA retaining the Manganese Ore production at 0.55 MTPA with total excavation of 26.42 MTPA (Iron Ore ROM - 7.85 MTPA, Manganese Ore ROM - 1.34 MTPA, Top Soil - 0.19 MTPA & Waste - 17.04 MTPA) along with proposed 7.0 MTPA Ore Beneficiation Plant, 1.2 km Down Hill Conveyor System, & 0.15 MTPA Crushing & Screening Plant in the mine lease area of 1860.10 Ha (ML No: 2678), located at Villages Deogiri, Subbarayanahalli, Ramghad & Kammathuru, Tehsil: Sandur, District: Ballari, Karnataka with certain terms and conditions.

2. One of the specific conditions stipulated by the EAC (Non-Coal Mining) is that (vi) *“The Project Proponent needs to increase the capacity of the dumper to 50 to 60 Tonnes. The Project Proponent should increase the transportation through conveyor belt. The project proponent should decrease all mining equipment such as loading equipment, drill machines, wheel loaders, etc., by increasing the capacity. Accordingly, the Project Proponent needs to submit the modified Mining plan to the Ministry’s IRO before start of mining operations for this expansion EC”.*

3. In view of the above recommendation by the EAC (Non-Coal Mining), the Ministry on 30.01.2023 requested the Project Proponent to submit the revised approved mining plan by IBM and to upload the same in Parivesh portal. The Project Proponent submitted the information on 03.03.2023 in Parivesh portal along with the “Opinion report on the possibility of deploying of higher capacity of Dumpers of 50-60 tonner with higher capacity Shovel at M/s The Sandur Manganese & Iron Ores Limited” carried out by CSIR-Central Institute of Mining & Fuel Research, Dhanbad

during February, 2023 and comments from the Indian Bureau of Mines vide dated 20.02.2023.

4. The comments of the “Opinion report on the possibility of deploying of higher capacity of Dumpers of 50-60 tonner with higher capacity Shovel at M/s The Sandur Manganese & Iron Ores Limited” in light of the specific condition (vi) carried out by CSIR-Central Institute of Mining & Fuel Research, Dhanbad during February, 2023 are given below: -

- i. Dumpers and shovel are considered to be one of the key resources in loading and haulage operation and their productivity largely depends on their cycle time, allocation and combination for every operation.
- ii. Dispatching and allocation of dumpers against loading equipment (shovel) is a major factor, which affects the productivity of shovel-dumper network system in opencast mines.
- iii. The effect of variation in truck fleet size on the queue length, waiting time, shovel utilization, approximate production and on the total operating cost has to be evaluated.
- iv. Changing the shovel dumper configuration will lead to redesigning of bench configuration viz. bench height, width and the safe slope angle. this will need rehandling of OB material to meet the design requirements of dumps.
- v. Considering the present bench design parameters, tipper and excavator combination and of width and design of the haul roads SMIORE has proposed, In the Scheme of Mining approved by the IBM to be implemented during the period 2023-24 to 2027-28, to beneficiate and to have average annual iron ore production of 0.65 million tonnes from Kammatharu Iron Ore mine and 0.97 million tonnes from Kanivehalli Iron Ore Mine, & 1.55 million tonnes from Alamaradakolla, and 1.33 million tonnes from the Incidental Iron Ores proposed to be produced from 11 manganese pits.
- vi. By asking to depute the higher capacity dumper of 50 to 60 tonner, the bare minimum width of the dumper in any case would vary from 3.2 meters up to 4.59 meters. Having such dumpers to be in place for executing the production and development in both Iron Ore and Manganese would require re-designing, re-working of the existing benches as the desired bench width as per 106(2)(b) must be three times the width of the dumper, i.e considering the minimum width of dumper the minimum bench width to be maintained goes up to 12.5 meters including the safety berm width, drainage along the bench face which implies that all the production faces to achieve the design has to be re-

worked and re- designed which would involve huge excavation and handling as all the existing benches has to be set right to match the requirement.

- vii. As it is evident from the field visit, geological plans and section, table of reserves and resources furnished in the mining plan that the re-design and re-framing of the benches would also lead to blockage of the mineable mineral reserves which will turn into resources there by lowering the life of the mine. As per the approved mining plan the current mineral resources which has been blocked along the safety zone of 7.5 meters /UPL is said to be 5.2 million tonnes in Iron Ore, 4.48 million tonne in Haematitic Siliceous Ore and 1.20 million tonne in Manganese Ore. Having sought to deploy higher capacity dumpers as width of the existing benches needs to be widened, there would be possibility of increase in the blocked resources by additional 30 % in Iron Ore from the existing 5.2 million tonnes and additional another 10% in Manganese Ore from the existing one which would be against the optimum exploitation of the mineral and against the mineral conservation.
- viii. The re-design would add on to additional 10-12 million cubic meters of development in ore and waste to match the design criteria during the very first year. This would also require huge area to accommodate the excess waste that would be generated due to change in configuration of benches as per the proposed change in dumper capacity and associated changes in shovel bucket capacity to match it, this is not technically and economically viable.
- ix. For maintaining the proposed shovel dumper combination. The bench geometry has to be changed and as the excavation of the top most bench is already made as per the safety limits, changes in bench configuration will be pushing the benches beyond the safety zone due to which it is not possible in most of the pits.
- x. Now just by deploying the dumper, it has to be matched with same capacity excavator/shovel. To have ideal cycle time of 490-550 seconds for cutting and loading to match the dumper of 50-60 tonner, it requires excavator bucket capacity of minimum of 8-10 CuM, deploying such a huge excavator in this type of deposit would not at all be feasible due to the following reasons.
 - a. In Iron Ore there are lot of alternate bands of BHQ/HSIO which exists along with Iron Ore, deploying such higher capacity excavator would lead to dilution in grade of ore and also affects product quality due to intermixing of intervening clays during the excavation process. This will in turn lead to the change in process flow, affect productivity of beneficiation, increase cost of production and will result in increased generation of Tailings.

- b. In Manganese, the ore body/zone is lenticular or pocket which has to be selectively mined followed by manual sorting, similarly the associated Iron Ore occurring as Incidental Iron ore has to be separated from Manganese and processed separately, having deputed such high capacity excavator will resort to non-recovery of manganese from the ore zone, product dilution, contamination of both Iron Ore and Manganese due to intermixing. Separation of Manganese from such huge pile of muck in the ore zone would be a nightmare and economically not feasible and desirous from mineral conservation point of view, and lowering of the manganese quality due to dilution would also make it non-saleable.
- c. Also, it is to be noted that both in Iron Ore and Manganese Pits there are phyllites and rocks are friable in nature and area experiences average of 600 mm rainfall, deployment of higher capacity dumper and shovel and will increase the load on floor of the strata /mine benches and this may cause weathering effect and results in slushy ground condition during monsoon period.
- xi. It is proposed to operate 13-14 pits for having Iron Ore ROM to beneficiation plant. All these pits are staggered along strike length of 16 kilometers. It is observed from the Production and Development proposal envisaged for enhancement that the handling of Iron ore ROM per day would range from as low as 320 tonnes per day up to average of 1139 tonnes per day across other 10-11 pits except that of Alamaradakolla which is about 10,000 tonnes/day. As the handling quantity from multiple pits are very low techno economically it may not be feasible to have conveyor line for transporting the ROM. As the lead distance from Alamaradakolla to the beneficiation plant is only about 2.87 kilometers, hence it would be economical to shift ROM with 15 dumpers. Moreover, the installation of conveyor belts along the face would require extended bench width to accommodate the its frame structure as well as space for the turning radius of the Front End Loader which would not be feasible for this type of the deposit.
- xii. It is to be noted that the operations are not confined to a very small area but rather will extend to 16 kilometers within the mining lease wherein lessee has invested huge money for building up road infrastructure. Hence this would not create any traffic congestion in the mine lease area.
- xiii. As the production of ore is not concentrated from one pit, deployment of large capacity dumpers to serve scattered source will lead reduced productivity of system.

- xiv. Considering all the above cited facts and findings from the field visits, data and documents reviewed, we are of the view that enhancement in dumper capacity from 16 tonner to 25 tonner itself is challenging and it is not advisable to recommend to deploy higher capacity dumper of 50-60 tonner and higher capacity excavator to this mining lease no 2678 of The Sandur Manganese and Iron Ores Limited and they may at best consider tipper capacity up to 25 tonner and excavator from 0.9 to 1.8 or 2.2 Cu. m capacity.
- xv. The bench design parameters currently being followed and proposed to be followed as per the approved Review and Updation of the mining plan is Scientifically designed taking into account the style of mineralisation, recovery of the mineral, optimum utilisation of the mineral resources and sustenance of the mine throughout its life.

5. The Indian Bureau of Mines (IBM) vide Lr. dated 20.02.2023 informed that the Mining plan document of the subject lease has been approved vide letter No.279/281/ 91/BNGNoI-III dated 19/09/2022 in-line with the ToR issued from MOEF&CC letter dated 14/01/2022 for the enhanced production quantity from 1.6 MTPA to 4.5 MTPA, by considering bench parameters and ore body geometry; subjected to Environmental Clearance from Ministry of Environment, Forests & Climate Change, Government of India & all the regulatory Authorities. Further, it is also to inform that, this office is not carrying out any techno-economic feasibility of the mine/machinerries.

6. The Project Proponent based on the above reports and comments requesting the Ministry to accept the submissions and withdraw the specific condition stipulated at para 3(vi) in the minutes of the EAC meeting held during 17-18 January, 2023 and to grant Environmental Clearance (EC). Accordingly, the proposal is considered in the 12th EAC (Non-Coal Mining) held during 21-22 March, 2023 for due deliberations.

7. Observation and Recommendation of the Committee:

The EAC deliberated on the "Opinion report on the possibility of deploying of higher capacity of Dumpers of 50-60 tonner with higher capacity Shovel at M/s The Sandur Manganese & Iron Ores Limited" carried out by CSIR-Central Institute of Mining & Fuel Research, Dhanbad" in light of the specific condition (vi) recommended by the EAC. The specific condition stipulated by the EAC (Non-Coal Mining) is that (vi) *"The Project Proponent needs to increase the capacity of the dumper to 50 to 60 Tonnes. The Project Proponent should increase the transportation through conveyor belt. The project proponent should decrease all mining equipment such as loading equipment, drill machines, wheel loaders, etc., by increasing the capacity. Accordingly, the Project Proponent needs to submit the modified Mining plan to the Ministry's IRO before start of mining operations for this expansion EC"*. The EAC also noted the letter from the Indian Bureau of Mines (IBM)

dated 20.02.2023 mentioned that the Mining plan document of the subject lease has been approved vide letter No.279/281/ 91/BNGNoI-III dated 19/09/2022 in-line with the ToR issued from MOEF&CC letter dated 14/01/2022 for the enhanced production quantity from 1.6 MTPA to 4.5 MTPA, by considering bench parameters and ore body geometry.

The EAC opined that as per the opinion report of the CIMFR, it will be not possible to deploy the dumper capacity from 50 to 60 Tonnes owing to mineral conservation, redesign of bench height and width, slope stability and safety aspect. The EAC observed that as per the approved Review of Mining Plan dated 19.09.2022 for the proposed production capacity for increase in Iron Ore production from 1.60 to 4.50 MTPA and retaining the Manganese Ore production at 0.55 MTPA, the proposed dumper capacity of 25 Tonnes will be a challenging task. The EAC members including representative of Indian Bureau of Mines also agreed to restrict the dumper capacity to 25 Tonnes as per approved Review of Mining Plan dated 19.09.2022 due to geological conditions, ore geometry and safety issues.

Thus the EAC agreed and recommended to restrict the dumper capacity to 25 Tonnes as per the opinion report of the CIMFR and as per approved Review of Mining Plan dated 19.09.2022. The EAC also opined that the however, the Project Proponent needs to explore the possibility of increasing the transportation through conveyor belt to reduce the impact due to transportation by road. The specific condition no. (vi) shall be replaced as "The Project Proponent shall adhere to the proposed dumper capacity of 25 Tonnes as per approved Review of Mining Plan dated 19.09.2022. However, the Project Proponent needs to explore the possibility of increasing the transportation through conveyor belt to reduce the impact due to transportation by road". All other terms and conditions shall remain unchanged.

List of members of Expert Appraisal Committee participated through VC

S.No	Member Name	Member Address	Designation	21 st March, 2023	22 nd March, 2023
1	Dr. Dinesh Misra, IFS (Retd.)	Plot No 65, Sector 8, Gandhinagar, Gujarat, 382 008	Chairman	Yes	Yes
2	Sh. Niranjana Kumar Vasu, IFS (Retd.)	816, Shanti Nagar, Opposite Durgapur Railway Station, Jaipur-Rajasthan, 302018	Member	Yes	Yes
3	Dr. Asha Rajvanshi, Scientist 'G' (Retd.), WII	B/104/106 Rock Valley Apartments, GMS Road, Sewla Kalan, P.O. Majra, Dehradun, Uttarakhand-248171	Member	Yes	Yes
4	Shri. Avijit Ghosh (CMD- Heavy Engineering Corporation Limited) (Retd.)	Singhee Marg, A-604 Shahadeo Tower, P. P. Compound, Ranchi 834001, Jharkhand	Member	Yes	Yes
5	Shri. Bandi Ramchandra Reddy (CMD-South Eastern Coalfields Limited)- (Retd.)	Flat No-503 A, Jyoti Cosmos, White Fields, Hi-Tech City, Kondapur, Hyderabad-500081	Member	No	Yes
6	Prof. Pramod Kumar, Professor, Shri Aurobindo College, University of Delhi	Shri Aurobindo College, University of Delhi 1372, B-1, Vasant Kunj, New Delhi- 110070	Member	Yes	Yes
7	Prof. Devesh Walia, Professor, Department of Environmental Studies	Department of Environmental Studies, NEHU, Shillong-793022 Department of Meghalaya	Member	Yes	Yes
8	Dr. Suresh Tiwari Scientist-F	Indian Institute of Tropical Meteorology, Pune, New Delhi	Member	No	No

		Branch, Prof. Ram Nath Viji Marg Rajinder Nagar, New Delhi - 110060			
9	Dr. K.G Asha Manjari, Professor, University of Mysore	10/B, "SPARSHA", 2nd Main, 2 nd Cross, Bhogadi IIInd Stage, Mysore-570026, Karnataka	Member	Yes	Yes
10	Prof. Dev Dutt Sharma, Vice-Chancellor	Sardar Patel University, Mandi H.P. 175001	Member	No	No
11	Shri V. K. Soni, Representative of India Meteorological Department	Government of India, Ministry of Earth Sciences, India Meteorological Department, Mausam Bhawan, Lodi Road, New Delhi – 110003	Member	No	No
12	Shri Yogesh Kale, Representative of Indian Bureau of Mines	Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	Yes	Yes
13	Shri Niazi Mohammed	Representative of Directorate General of Mines Safety	Member	Yes	Yes
14	Shri Gowrappan	No. 6, Ganesh Avenue II Street, Shakti Nagar, Porur, Chennai - 600 116, Tamil Nadu.	Special Invitee	Yes	No
15	Shri Pankaj Verma	2 nd Floor, Prithvi Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi-110003.	Member Secretary	Yes	Yes
