

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

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**SUMMARY RECORD OF 4<sup>TH</sup> 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 4<sup>th</sup> meeting of the Re-constitution of Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 28-29 September, 2022 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC, discussion on each of the Agenda Items was taken up ad-seriatim.

**(1.0) Deliberation & Circulation on the Minutes of 3<sup>rd</sup> EAC meeting held on 5<sup>th</sup> September, 2022:**

The minutes of 3<sup>rd</sup> EAC meeting held on 5<sup>th</sup> September, 2022 were placed before the members of the Committee.

**Day 1: 28.09.2022 (Wednesday)**

**1.1 Barsua-Taldih Kalta Iron mines of M/s SAIL for expansion in production from 8.05 MTPA to 16.0 MTPA (ROM), Topsoil/OB/IB: 3.92 MTPA and handling 2.0 MTPA Sub-grade dumps/Tailings (Total excavation: 22.0 MTPA) and installation of new Dry Processing Plants of 7.0 MTPA for Taldih & 4 MTPA for Kalta and augmentation of existing 3.5 MTPA Barsua Beneficiation Plant along with adequate loading, siding and associated infrastructure in the amalgamated mine lease area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] out of 2564.323 ha, located at Tantra & Bahamba Villages and Toda RF under Koira Tehsil, Sundargarh District, Odisha – [File. No: J-11015/351/2006-IA.II(M), Proposal No: IA/OR/MIN/291173/2021 dated 31.08.2022; Consultant: MECON Limited] -Environmental Clearance (Expansion)**

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

out of 2564.323 ha, located at Tantra & Bahamba Villages and Toda RF under Koira Tehsil, Sundargarh District, Odisha.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The amalgamated mine lease area falls under the Survey of India Toposheet No: 73G/1 (F45N1) and bounded by Latitude from 21°49'25.43880"N to 21°59'50.88516"N and Longitude from 85°07'43.73832"E to 85°13'53.48136"E and falls in Seismic Zone-II.
- 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 and appraised at the Central level. PP submitted that Odisha-Jharkhand inter-state boundary is located at a distance of ~0.3 km, N from the mine lease area.
- iii. The Project Proponent submitted that Environmental Clearances has been obtained in the following chronological order: -
  - a. Initially, Integrated Environmental Clearance was obtained vide letter No. J-11015/351/2006-IA.II(M) dated 29.10.2010 for Barsua-Taldih-Kalta Iron Ore Mining (ML-130), Beneficiation and Pelletisation plant project of M/s Steel Authority of India Limited for an annual production capacity of 8.05 million tonnes of iron ore by the opencast mechanized method along with setting up of a beneficiation plant of 4.25 million TPA (in additional to existing plant of 2.5 million TPA) and setting up of a pelletisation plant of 2.0 million TPA capacity involving total mine lease area of 2486.391 ha.
  - b. Thereafter, PP obtained the amendment in Environmental Clearance vide F.No.J-11015/351/2006- IA.II(M) (pt.) dated 30.03.2016 for the following:-
    - i. Temporary permission to change iron ore production (ROM) from three blocks viz. Barsua, Talidh and Kalta in ML-130 lease from 2.5, 4.25 and 1.3 million TPA to 3.5, 2.05 and 2.5 million TPA respectively, keeping the total iron ore (ROM) production restricted to 8.05 million TPA as specified in the earlier environment Clearance.
    - ii. Permission to operate existing beneficiation plant at the rate 4.5 million TPA instead of 2.5 million TPA.
    - iii. Permission for road transportation of part of iron ore (ROM) from Talidh block to the Barsua Valley (about 11kms.) and to the Barsua beneficiation plant for a period of five years till facilities viz. crushing plant, LDBC are erected and commissioned for the Taldih block.
    - iv. 'To replace outside mine lease area' with 'ML-162 lease and acquired area' in environmental clearance, in order to utilize the infrastructure facilities for processing of iron ore produced from ML-130 lease.
    - v. To modify the total lease area of ML-130 lease from 2486.391 to 2486.383 ha as per the joint survey committee report (DGPS survey

report) of Govt. of Odisha and the lease deed executed by and between the Govt. of Odisha and SAIL on 13<sup>th</sup> November, 2014.

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

- c. Further, the PP amended the Environmental Clearance vide F.No. J-11015/351/2006-IA.II(M) dated 03.07.2020 for i) Excavation of iron ore from Barsua Block at 3.50 MTPA including a provision of excavation of maximum upto 1 MTPA tailings from the tailings pond at Barsua for selling. The excavated tailings will be transported through internal road over 2.1 km to the stacking yard and then to Barsua Public Siding by public road over 0.6 km or any other nearby railway sidings, ii) Excavation of iron ore from Taldih & Kalta Blocks at 2.05 MTPA and 2.50 MTPA respectively including provision of excavation and dispatch of sub-grade iron ore fines maximum upto 0.5 MTPA from Fines Stocks from each block for selling. The excavated sub-grade iron ore fines will be dispatched by road / road & rail and iii) Continuation of the already amended provisions of EC amendment dated 30.03.2016 (valid up to 30.03.2021) for further two years i.e. up to 31.03.2023, which are (i) Permission to change iron ore production (ROM) from three blocks viz. Barsua, Taldih and Kalta in ML-130 lease from 2.5, 4.25 and 1.3 MTPA to 3.5, 2.05 and 2.5 MTPA respectively, keeping the total iron ore (ROM) excavation restricted to 8.05 MTPA as specified in the earlier environmental clearance, ii) Permission to operate existing beneficiation plant at the rate of 4.5 MTPA instead of 2.5 MTPA), subject to the following conditions (Sl. No 22 A), in addition to the conditions prescribed in the EC and subsequent amendments.
- d. Subsequently, the PP amended the Environmental Clearance vide F.No. J-11015/351/2006-IA.II(M) dated 03.07.2020 with corrigendum dated 13.07.2020 that the entire 2.05 MTPA iron ore excavated at Taldih will be trucked directly to Barsua Private/Public Sidings till construction of road from Taldih to Barsua Beneficiation Plant.
- e. Again, PP amended the Environmental Clearance vide F.No. J-11015/351/2006- IA.II(M) dated 17.03.2021 for re-distribution as (i) increase in iron ore production from Kalta Block by 0.7 MTPA from 2.5 MTPA and the final capacity is 3.2 MTPA which also includes maximum of 0.5 MTPA of sub-grade iron ore fines excavated from accumulated stocks and (ii) reduction in iron ore production from Taldih Block by 0.7 MTPA from 2.05 MTPA and the final capacity is 1.35 MTPA which also includes maximum of 0.5 MTPA of sub-grade iron ore fines excavated from accumulated stocks within permitted EC capacity of 8.05 MTPA.
- f. Then, PP obtained amendment in Environmental Clearance vide J-11015/351/2006-IA.II(M) dated 25.01.2022 for amalgamation of

contiguous mine lease areas comprising of ML-130 (2486.383ha) and ML-162 (77.94ha) as total area of 2558.581 ha [FC available 2419.871 ha + non-forest land 138.710 ha] without change in production capacity [8.05 MTPA ROM and Beneficiation Plant Capacity 3.5 MTPA].

- iv. The project was granted Terms of Reference (ToR) by the Ministry vide its letter dated 22.03.2022 based on the recommendation of sectoral EAC meeting held during 15<sup>th</sup> - 17<sup>th</sup> February, 2022.
- v. The Project Proponent submitted that the Barsua Iron mine (Southern part) and Kalta Iron mine (Northern part) are in operation since 1960 and 1966 respectively. The Taldih Iron mine (Middle part) has started production in the year 2016. There were two contiguous mining leases namely ML-130 (main iron ore mining lease) and ML -162 (for infrastructure) under the Barsua – Taldih-Kalta Iron Mines. The mining lease for ML- 130 (2486.383 ha) was granted on 06.01.1960 for a period of 30 years and subsequently it has renewed & lease deed for the 2<sup>nd</sup> renewal period has been executed on 13.11.2014 having validity up to 05.01.2030. The associated infrastructure facilities of Barsua Iron Mine are located in another adjoining mining lease viz ML - 162 (77.94 ha), which was granted on 29.04.1960 and subsequently it has also been renewed as well as extended the lease period up to 28.04.2030 and supplementary lease deed was executed on 24.09.2016. Based on the SAIL's application, Dept. of Steel and Mines, Govt. of Odisha vide proceeding No. IV(B)SM-03/2020/10418/SM, Bhubaneswar, dated 02.12.2020 amalgamated the contiguous mining leases viz ML - 130 (2486.383 ha) and ML - 162 (77.94 ha) covering total area of 2564.323 ha having validity up to 05.01.2030. Lease deed of the amalgamated lease has been executed on 30.03.2021.

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

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

vii. Mining plan details:

Modification of Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	MP/A/39-ORI/BHU/2020-21
	Date	01.04.2021
	Mineral	Iron Ore
	Area	amalgamated mine lease area of 2564.323 ha

	Validity	2020-21 to 2024-25
Mining Parameters	Quantitative Description	
Method of Mining	Opencast mining with deep hole drilling and blasting and excavation and haulage through shovel dumper combination.	
Mineable Reserve	Barsua Block: 130.72 MT Taldih Block: 328.26 MT Kalta Block: 96.01 MT	
Drilling/Blasting	Barsua Block: DTH drill of 150m dia/Slurry Explosive Taldih Block: DTH drill of 150m dia/Slurry Explosive Kalta Block: DTH drill of 100m dia/Slurry Explosive	
Bench Height	Barsua Block: 10 m Taldih Block: 12 m Kalta Block: 6 m	
Bench Width	Barsua Block: 20 m Taldih Block: 20 m Kalta Block: 10 m	
Individual bench slope	80°	
Overall pit slope	37°	
Life of mine	Barsua Block: 33 Years Taldih Block: 43 Years Kalta Block: 24 Years	
Transportation details	Barsua Block: Belt conveyer to Barsua railway siding Taldih Block: Long distance conveyor to Barsua Railway Siding Kalta Block: Long distance conveyor to Roxy Railway Siding	
Dumpers capacity	Barsua Block: 50/60/100T Taldih Block: 25/35/100T Kalta Block: 25/35T	
RoM output size	150 mm	
Throughput Capacity of Processing Plants	Barsua Block: 3.5 MTPA Taldih Block: 7.0 MTPA Kalta Block: 4.0 MTPA	
Waste Dump Management	PP submitted that Waste/ overburden/ sub-grade materials will be hauled to designated dump yards as planned in the approved mining plan. The waste materials will be utilized for back-filling of ultimate pit voids. During the conceptual stage	

	there will be no external OB dumps. All external OB dumps will be rehandled and backfilled in the mined out pits during the final closure.
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viii. Water requirement:

Total water requirement	8845 m <sup>3</sup> /day	Fresh water	8675 m <sup>3</sup> /day
		Treated water	170 m <sup>3</sup> /day
Source	KuradihNalla / NajkuraNalla		
Permission	PP submitted that Department of Water Resources, Govt. of Odisha has permitted allocation of 3.406 cusec (~8333 m <sup>3</sup> /day) of surface water from KuradihNalla vide Letter no.4897/WR dated 15.02.2021. The permitted drawl quantity from NajkuraNalla is 24,110 m <sup>3</sup> /month (~803 m <sup>3</sup> /day).		

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

Particulars	Particular's Name	Distance & Direction
Village	Tantara	Within mine lease
Town	Koira	10 km
Highway	NH - 520	Passing through mine lease
Railway Station	Barsua	1 km
Water bodies	SamajNalla	Passing through mine lease
	KurarhiNala	0.1 km
	Karo River	3.0 km

- x. The Project Proponent submitted that total mine lease area is 2564.323 ha, out of which 2425.613 ha is Forest Land (Toda R.F.) and 138.710 ha is Non-Forest Land. PP submitted that 5.742 ha of Forest Land, which was part of ML – 130, is under occupation of the local Schedule Tribe & Other Traditional Forest Dwellers in Village Tantra. Their individual rights have been recognized by granting pattas under Forest Right Act., 2006. PP obtained Stage-II Forest Clearance vide MoEF F.No.8-90/1996-FC (pt), dated 06.03.2013 for diversion of forest land over 2341.931ha (2248.252ha for mining and allied activities and 93.679ha for safety zone) under ML – 130 of BarsuaTaldih-Kalta in favour of M/s SAIL. Then, PP obtained Stage-II Forest Clearance vide MoEF F.No.8-18/2014-FC dated 23.10.2017 for diversion of 77.94 ha of forest land including 2.562ha of safety zone area for development of mining infrastructure in Toda RF in ML–162 lease of M/s SAIL. Further, PP submitted that Stage – II Forest Clearance over 2419.871 ha obtained covering under the amalgamated lease. Further, PP submitted that there is no National Park, Wild Life Sanctuary, Eco Sensitive Zone, Elephant Reserve/Tiger Reserve, Wildlife Corridors within 10km radius.
- xi. The Project Proponent reported that there are six Schedule-I species in the buffer zone such as Indian Elephant, Sloth Bear, Wolf, Peafowl, Leopard,

Indian python. In support of this, PP submitted the authenticated list of flora and fauna from the Office of the Divisional Forest Officer, Bonai Division, vide letter dated 06.04.2022. PP also submitted that the Site Specific Wildlife conservation plans (SSWCP) was approved by Chief Wildlife Warden, Odisha vide letter dated 25.02.2013 over an area of 2486.313 ha & 13.01.2016 over an area of 77.94 ha. Further, PP submitted that an amount of Rs.17.82 Crores & Rs. 9.84 Crores were deposited for implementation of approved SSWCPs in buffer zone of Barsua-Taldih-Kalta Iron Mines.

- xii. The Project Proponent submitted that the plantation is being done inside the lease area of Barsua-Taldih-Kalta Mines and nearby areas for creating greenbelt over the period of years. In compliance to the forest clearance condition related to Safety Zone protection, scheme for Safety Zone plantation has been prepared and phase wise plantation within safety zone of mining lease is being done through State Forest Department. Safety Zone plantation of 32,000 saplings over an area of 93.679 ha has been done through State Forest Department. Apart from this, so far 2,25,865 saplings have been planted covering an area of 110.48 ha since 2010. In the year 2020-21, total 13,000 saplings have been planted over an area of 5.50 ha at Barsua and Kalta block. A total of 2408.21 ha will be under green cover at the end of mine life, out of which 150.48 ha is existing/proposed safety zone/greenbelt and 732.064 ha is undisturbed forest areas. The additional plantation will be carried out over 1548.726 ha with 24,52,596 saplings within the Mine lease area. The estimated cost of afforestation within the ML area as per the plan shall be about Rs. 7358 Lakhs as per prevailing rates for plantation of 2022-23.
- xiii. Baseline Details: The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Winter Season i.e., December, 2021 to February, 2021. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period	March, 2021 to May, 2021				
AAQ parameters at 12 locations	Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	98 Percentile value	Standard, $\mu\text{g}/\text{m}^3$
	PM10	65.0	110.0	106.0	100
	PM2.5	32.0	59.0	55.0	60
	SO2	4.0	24.9	24.6	80
	NOx	10.0	33.9	33.2	80
AAQ modeling	Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard
	PM10	96.0	11.3	107.3	100

	PM2.5	55.0	0.1	55.1	60
	SO2	24.6	-	24.6	80
	NOx	33.0	-	33.0	80
Noise level at 10 locations	Day Time: 40.3 to 68.9 Leq dB (A) Night Time: 38.7 to 55.6 Leq dB (A)				
Ground water quality at 8 locations	PP reported that nitrate concentrations are found to be below detection limits in all the ground water monitoring samples except in GW1 and GW8. The concentration of Total hardness (asCaCO <sub>3</sub> ) varied from 84 to 160 mg/l in eight ground water samples which is well within the "Acceptable Limits". Slightly high turbidity was found in locations as per the following order: GW2 > GW7 > GW6; however, within the "Permissible Limits".				
Surface water quality at 8 locations	PP reported that pH of water samples are in the range of 7.02 to 7.39 which are well within 6.5-8.5. The dissolved oxygen varied from 4.4 to 6.9 mg/l. The Fe concentration with 0.598 mg/l is high in SW1 (Tailing Pond discharge water (Outlet) (BIM)) when compared with other surface water samples. The Fe concentrations are found to be below in upstream when compared with downstream samples. The concentrations of total alkalinity (as CaCO <sub>3</sub> ), in eight surface water samples range from 20 to 56 mg/l and the Total hardness (as CaCO <sub>3</sub> ) concentrations varied from 20 to 48 mg/l. Hence the water samples can be categorised as soft water due to low degrees of hardness. Total Coliform results of SW1, SW3, SW7 & SW8 samples are above 500 MPN/100 ml which makes this surface water quality fall under Class C i.e. surface water which can be used as drinking water source after conventional treatment and disinfection. The rest of the surface water samples SW2, SW4, SW5 & SW6 is suitable and can be used for outdoor bathing (organised) (i.e. Class B) as the Total coliform concentrations are less than 500 MPN/100 ml.				
Soil quality at 8 locations	PP reported that the soil pH was observed in the range of 4.62 (Strongly acidic) to 5.81 (Moderately acidic). Electrical conductivity ranged from 19.4 to 141.6 µs/cm. Availability of Nitrogen at all locations ranged from 314 kg/ha (Medium) to 941 kg/ha (High), Phosphorus at all locations ranged from 0.45 kg/ha (Low) to 1.83 kg/ha (Low) and Potassium at all locations ranged from 0.24 kg/ha (low) to 1.13 kg/ha (High). Organic content varied from 0.78% (dump/OB area) to 2.38% (agricultural land). Fe and Mn are found to be generally higher in the region, due to the natural geology of the area. Overall, the level of some micro-nutrients is above the critical limits in the study area. Hence, it is deduced that no external application of micro-nutrients is required (fertilisers) for good plant growth.				



Traffic Survey	PP reported that traffic Density has been studied on the nearby routes at four locations (1). On the public road near Barsua Public Siding (TDS1), (2). Near Tensa Guest House on the Koira to Barsua Valley public road (TDS2), (3) On the Koira to Barsua Valley public road just beyond Taldih Mine towards Barsua Valley (TDS3) and (4). On NH-520 at Toda Village at Toda (between Kalta Mines gate & Roxy siding) (TDS4). Traffic density has been monitored every hour continuously for seven days during the monitoring period. The Tensa-Barsua Road (TDS 2 & TDS 3) is a Two-lane road in Rolling Terrain with surfaced shoulders of at least 1.5 m on either side (i.e. capacity – 12,650 PCUs/day as per IRC:64-1990). The road near Barsua Siding (TDS1) is also a two-lane road but on “Plain Terrain” (i.e. capacity – 15000 PCUs/day as per IRC:64-1990). The Kalta - Roxy Siding Road (NH-520) is a “four-lane Highway in plain terrain” (i.e. capacity – 40000PCUs/day as per IRC-SP:084-2014). At present the traffic volumes at TDS1, TDS2, TDS3and TDS4 are within the respective recommended Design Service Volumes.
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xiv. Public Hearing (PH) Details:

Advertisement for PH with date	i. National English Daily: “Sunday Times” Bhubaneshwar edition dated 22-05-2022, ii. Odiya Daily: “The Sambad” dated 20-05-2022
Date of PH	23.06.2022
Venue	Ispat High School Playground of Tensa Village under Koira Block, Sundargarh District, Odisha
Chaired by	Shri Shiv Shankar Toppo, Additional District Magistrate, Sundargarh
Main issues raised during PH	Protection of natural resources, plantation, health camp, development of Anganwadi, employment of locals in the mine, protection of environment, protection of perennial nallahs, water sprinkling on road, noise pollution, desilting of nallahs, improved in drinking water supply, improvement in social infrastructure, school bus, improvement in education facilities, improvement in medical facilities, pollution control, promotion of sports especially hockey, support to Self Help Groups in peripheral villages, skill development, improvement in sanitation facilities, improvement in roads
Budget proposed for addressing issues raised during PH	Rs.21.88 crores over the next three years

- xv. The Project Proponent submitted the Consent to Operate issued by the Odisha State Pollution Control Board vide Consent Order Letter No. 4882/IND-I-CON-1(A), dated 28.03.2022 for production of 8.05 MTPA (ROM) [(i) Barsua – 3.5 MTPA iron ore including excavation and dispatch of tailings maximum up to 1.0 MTPA from the tailing pond at Barsua, (ii) Kalta – 3.2 MTPA iron ore including excavation and dispatch of subgrade iron ore fines maximum up to 0.5 MTPA from fines stocks and (iii) Taldih – 1.35 MTPA iron ore including excavation and dispatch of subgrade iron ore fines maximum up to 0.5 MTPA from fines stocks] and operation of mobile crushing and screening plant of capacity 4x300 TPH and operation of mobile screening plant of capacity 4x300 TPH for the period up to 31.03.2023. PP submitted the Certified EC Compliance report issued by the Integrated Regional Office (IRO), Bhubaneswar vide Lr No. 101-257/21/EPE/1353 dated 29.10.2021. Site visit was carried out by IRO, Bhubaneswar on 22<sup>nd</sup>& 23<sup>rd</sup>October, 2021.
- xvi. The Project Proponent submitted the year wise production data of ML-130 (2486.383 Ha) from 1993-94 to 2018-19 certified by Deputy Director of Mines, Koira vide Mem No 6522/Mines, dt 13.12.2019 and for the period 2019-20 to 2020-21 certified by Deputy Director of Mines, Koira vide Mem No 4004/Mines, dt 22.10.2021. PP reported that subsequent to the judgment of Apex Court dated 02.08.2017, the Government of Odisha has issued demand notice to Barsua Kalta Mines for payment of compensation towards excess production on or before 31<sup>st</sup> December, 2017 against EC/CTO capacity. Dy. Director of Mines (DDM), Koira vide letter dated 02.09.2017 issued a demand notice for payment of Rs. 66,89,42,779.5 /- in respect of Barsua / Kalta Iron Mines to recover price of mineral produced without/beyond EC alone under Section 21 (5) of MMDR Act, 1957. The said amount was deposited on 29.12.2017 under protest. Further, letter No.5962/Mines dtd, 24.10.2017 of DDM, Koira has directed to pay compensation of Rs.90,19,71,684.40 /- for mining in excess of the permissible limit under the Consent to Operate. Against the above stated demands, SAIL had filed a Writ Petition bearing WP (C) No- 24282/2017 in High Court of Odisha, Cuttack. The matter was heard and Hon'ble High Court had passed the stay order on 04.04.2018 & matter is sub-judice. PP also submitted the affidavit dated 20.04.2020 that Barsua-Taldih-Kalta Iron Ore Mine (ML-130, Mining Lease: 2486.383 Ha) of SAIL shall comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2<sup>nd</sup>August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors subject to the result of the pending writ petitions before Hon'ble High Court of Odisha and further appeals thereto if need arises.
- xvii. The Project Proponent submitted that no R&R plan is required as no displacement of people is proposed for the expansion of Barsua-Taldih-Kalta Iron Ore Mining Project.
- xviii. Details of the Environment Management Plan (EMP):

Activities	Capital cost (Rs. in Crores)	Recurring cost (Rs in Lakhs/annum)
<b>POLLUTION CONTROL</b>		
A. Water Pollution Control	16.00	190
B. Air Pollution Control	20.95	491
C. Solid Waste Management	0.55	40
<b>OCCUPATIONAL SAFETY &amp; HEALTH</b>	0.30	15
<b>GREEN BELT DEVELOPMENT</b>	73.58	0
<b>WILDLIFE CONSERVATION &amp; MANAGEMENT</b>	0.00	142
<b>POLLUTION MONITORING</b>	0.00	40
<b>RAINWATER HARVESTING</b>	0.50	5
<b>Cost for Environmental Protection Measures (in Rs. Lakhs)</b>	<b>111.88</b>	<b>923</b>

xix. Details of project cost and employment:

Particulars	(Rs. In Crore)
Capital Cost for Environment Protection	Rs.111.88 Crores
Budget for addressing the Public Hearing issues	Rs.21.88 Crores over the next 3 years (including 13.27 Crores of cost of Environmental Protection)
Total Cost for EMP	Rs.120.49 Crores (Including PH issues)
Recurring Cost for EMP	Rs. 9.23 Crores per year
Project Cost	Rs. 2740.88 Crores
Employment	1133 nos. additional

### **3. Observation and Recommendation of the Committee:**

The EAC noted that the Project Proponent informed that the total length of the mine lease area is approximately 18.0 km. PP also informed that the mine lease comprises of three blocks namely Barsua, Taldih and Kalta. The Barsua block is located in Southern side, Kalta block in Northern side and Taldih block located between Barsua and Kalta blocks. The Barsua, Kalta, Taldih block started its mine operation since 1960, 1966, Nov 2016 respectively and at present combined capacity of all these three blocks is 8.05 MTPA.

The Project Proponent informed the EAC that the entire ore from the Barsua is being transported by downhill conveyors from the mines to SAIL's Private Barsua Railway Siding and processed ore of Taldih mines is being transported by trucks to Barsua Valley at a distance of 13 km by road and then from Barsua valley to Railway Siding. In case of Kalta the entire production is sent by trucks to Roxy Rly. Siding. The haulage comprises ~4.0 km of internal roads and ~18 km of public roads (NH-520 which is a 4-lane road with a divider). Further, the Project Proponent informed

that in the proposed expansion, the capacity of the iron ore in the Barsua block will remain the same and the existing 3.5 MTPA capacity beneficiation plant will be augmented. In Taldih block, the present capacity of the iron ore is 1.35 MTPA (ROM) which will be increased to 8.0 MTPA (ROM). The crushed ore will be conveyed to Barsua Valley through a conveyor system of an approximate length of about 8 km and stacked in an intermediate stockpile at Barsua Valley. The proposed conveyor will pass over the public road (Tensa – Barsua road) near Taldih mine. In Kalta mine, 4.0 MTPA capacity of dry crushing and screening will be installed. The lump and fines from the product stockpiles at Kalta will be conveyed to Roxy siding through a long distance conveying system of about 16 km. At Roxy siding, material from the conveyor will be received at loading stockpiles from where these will be loaded into railway wagons for further dispatch to consuming steel plants.

The EAC asked the Project Proponent to show the environmental sensitivity in the KML file within 10 km radius of the study area. The Project Proponent informed the EAC that the NH-520 (Panikoili – Rajamunda) passes through the mine lease area in Kalta block. The mine lease area is located at a distance of ~0.3 km, N from the Jharkhand State boundary. The total mine lease area is 2564.323 ha, out of which 2425.613 ha is Forest Land i.e., about 94% and 138.710 ha is Non-Forest Land. An area of 5.742 ha of Forest Land, which was part of ML - 130, is under occupation of the local Schedule Tribe & Other Traditional Forest Dwellers in village Tantra. Their individual rights have been recognized by granting pattas under Forest Right Act.,2006. PP had obtained NOC for utilization of forest land under ML-130 & ML-162 leases as per the Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. The EAC was of the view that the Project Proponent needs to clarify whether the forest clearance is applicable over an area of 5.742 ha or not?

Project Proponent also informed that the nallahs exist in the mine lease area. The Kuradih nallah originates in the southern part of buffer zone at the foot hills of Dandrahar pahar and travels about 15 km towards NW in Barsua valley and joins river Brahmani at about 200 km from the study area. Samaj Nala originates below slope region near Taldih and runs along the core zone ridge, crosses the core zone near Kalta and runs towards western side. Eastern flank waters from the northern parts of the lease (KIM) drain into the south flowing Najkura Nala which joins the Samaj Nala before it turns west. The mine lease area is acting as a watershed at core zone, and the east and west flowing streams join the Kuradih nallah just 5 km beyond the buffer zone. In the eastern side, the mine lease area is characterized by four streams viz. Erua nala, Gera nala, Geria nala and Sirki nala. These streams flow perpendicular to mine lease area whereas the western part is characterized by Samaj nallah which flows parallel to the mine lease area.

Further, the Project Proponent informed that the public road from Toda-Barsua passes through the mine lease area and part of the public road being used

for evacuation of iron ore from Taldih to Barsua siding. PP also informed that the road transport will be discontinued in 3 years after laying the conveyor belt. The EAC opined that there will be impact on the biological environment while laying the conveyor belt and the timeline of 3 years is too long. The EAC was of the view that the Project Proponent needs to specifically assess the impact of biological environment while laying the conveyor belt. The EAC suggested the Project Proponent to go for a state of art technology for laying the conveyor belt and also to provide passage for maintenance of conveyor belt. The EAC asked the Project Proponent whether there is any possibility of laying conveyor belt from Kalta to Taldih within the mine lease area and also whether any alternatives has been considered or not so that the entire material will be transported from Barsua railway siding? The Project Proponent informed the EAC that as of now materials from Barsua and Taldih are dispatched through Barsua railway siding and the additional material from Kalta will be congested and difficult to handle the total capacity. The EAC advised the Project Proponent to strengthen the Barsua railway siding from the view point of environment as the laying of conveyor belt from Kalta to Roxy railway siding through forest land will be time consuming.

The EAC asked about the elevation of the mine lease area. Proponent informed that the mine lease area is in a hilly terrain with elevation ranging from 414m - 860m AMSL. The EAC asked the Project Proponent whether the garland drains designed in line with the expansion scenario or not? The Project Proponent informed the EAC that all the blocks will be provided with the garland drains and the clarified water after settling in the settling pits will be only allowed to discharge. PP also informed that it is only the lateral expansion of the quarry and will be operating as per the rainfall data and whatever the sediments and silt coming from these nallahs will be taken into settling pond and only the clarified water will be allowed to discharge and also there is no toxicity found in this iron ore mine.

The Project Proponent informed the EAC that mine pit water is not available except during monsoon season. The ultimate pit depth is well above the ground water table. PP also informed that 60% clear water is recycled and the underflow from the thickener is discharged into tailing Dam. The EAC asked the Project Proponent whether the makeup water is also considered or not? The Project Proponent informed the EAC the makeup water balance is also considered in water balance. The EAC was of the view that the Project Proponent needs to show the flow chart of water balance by considering the makeup water.

The EAC asked the Project Proponent that what is the stripping ratio and also whether there will be any enough material for backfilling or the mine pit will be left as a water body? The Project Proponent informed the EAC that the stripping ratio is 1:0.123 and bottom of the benches will be backfilled so as to not to alter the topography of the lease area. Due to less stripping ratio the entire void cannot be backfilled. The EAC advised the Project Proponent to undertake bench plantation.

The EAC asked the Project Proponent what are the measures are taken to prevent the pollution from processing plants? The Project Proponent informed that in Kalta and Taldih block it is proposed to carry out dry processing only. PP also informed that processing units have been envisaged with dust suppression systems at unloading points as well as dust extraction systems and bag filters in primary, secondary and tertiary crushing. PP also informed the EAC that the entire conveyor belt is a rolling type and the generation of noise level will be less. The Project Proponent informed the EAC that the higher PM values at locations close to roads (A8, A3, A6, A11) and locations close to mines (A1, A2, A10) and PM values will reduce after implementation of conveyor transport systems. PP also informed that PM level affected by village activities and pollen generation from Sal trees in the forests. The EAC not convinced with the reason for increase in PM level due to pollen generation from Sal trees in the forests and the EAC asked the Project Proponent to justify with the supporting data by physical/chemical analysis.

The EAC asked about the distance of blasting from road and what are the existing provisions? The Project Proponent informed the EAC that the blasting site is atleast 1 km away from the road and the controlled blasting measures are being taken to control the vibration and flyrock. The Project Proponent informed the EAC that the there are six Schedule-I species such as Indian Elephant, Sloth Bear, Wolf, Peafowl, Leopard and Indian python are found in the buffer zone. The EAC was of the view that the Project Proponent needs to revisit the Wildlife Conservation Plan and the status of the implementation of the conditions as per approval of conservation plan in the year 2013 and 2016 and also to upload the Wildlife Conservation Plan in Parivesh portal. The Project Proponent agreed to review the conservation plan in consultation with the State Govt.

Further the Project Proponent informed the EAC that Deputy Director of Mines (DDM), Koira vide Lrno.5962/Mines dtd, 24.10.2017 directed to pay compensation of Rs.90,19,71,684.40 /- for mining in excess of the permissible limit under the Consent to Operate. PP also informed that above stated demands Writ Petition bearing WP (C) No- 24282/2017 had been filed in the Hon'ble High Court of Odisha, Cuttack. The matter was heard and Hon'ble High Court had passed the stay order on 04.04.2018 & matter is sub-judice. The EAC asked the Proponent to submit the current status of the court case. The EAC asked the Project Proponent to submit the breakup of the Project Cost of Rs. 2740.88 Crores. Therefore, in view of the above, the EAC **deferred** the proposal for want of the following additional information: -

- i. The Project Proponent needs to specifically assess the impact of biological environment while laying the conveyor belt from Kalta to Roxy railway siding through forest land. PP also needs to submit the timeline for commencement of the conveyor belt.

- ii. The Project Proponent needs to explore the possibility of laying conveyor belt from Kalta to Taldih within the mine lease area. PP also needs to submit the action plan for strengthening the Barsua railway siding.
- iii. The Project Proponent needs to submit the timeline for construction of concrete approach roads at Kalta & Taldih Mines.
- iv. The Project Proponent needs to prepare fresh/update of the Wildlife Conservation Plan and also to submit the status of the implementation of the conditions as per approval of conservation plan in the year 2013 and 2016 in consultation with the Forest Department. PP also needs to upload the earlier Wildlife Conservation Plan in Parivesh portal.
- v. The EAC not convinced with the reason for increase in PM level due to pollen generation from Sal trees in the forests and the EAC asked the Project Proponent to justify with the supporting data by physical/chemical analysis.
- vi. The Project Proponent shall submit the action plan for handling of rejects from tailing pond and recycling of wastewater after treatment.
- vii. The Project Proponent needs to submit the flow chart of water balance by considering the makeup water.
- viii. The Project Proponent needs to submit the breakup of the Project Cost of Rs. 2740.88 Crores.
- ix. The Project Proponent shall submit the certified compliance report on the Recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore mining activity in Keonjhar, Sundargarh and Mayurbhanj Districts of Odisha State" from Ministry's Integrated Regional Office (IRO). PP also needs to submit the examination of the verification report by IRO for the non-compliances of the EC conditions w.r.t construction of HEMM vehicle maintenance unit and maintenance of garland drains to maximize rain water harvesting and water conservation. Further, PP needs to submit the certified compliances of conditions mentioned in all amendment in EC's.
- x. The Project Proponent shall ensure that the activities proposed under public hearing action and Corporate Social Responsibilities should not be similar.
- xi. The Project Proponent needs to submit the current status of the court case filed vide Writ Petition bearing WP (C) No- 24282/2017 in the Hon'ble High Court of Odisha, Cuttack.

- xii. The Project Proponent needs to revise and upload the Chapters of 5, 6 & 7 in proper format in PARIVESH. PP also needs to upload the copy of advertisement of public hearing published in local language on PARIVESH.

**1.2 Mevasa Bauxite (Aluminous Laterite) mine of M/s Shri Kaushikkumar Patel for mining of Bauxite (Aluminous Laterite) with production capacity of 1,49,248 TPA in the mine lease area of 8.7305 ha, located at Village Mevasa, Taluka Kalyapur, District Devbhumi Dwarka, Gujarat – [F.No: IA-J-11015/36/2022-IA-II(NCM), Proposal No: IA/GJ/MIN/289746/2022 dated 22.08.2022] – Terms of Reference (ToR)**

The instant proposal is for grant of Terms of Reference (ToR) of M/s Shri Kaushikkumar Patel for mining of Bauxite (Aluminous Laterite) in Mevasa Bauxite (Aluminous Laterite) mine with production capacity of 1,49,248 TPA in the mine lease area of 8.7305 ha, located at Village Mevasa, Taluka Kalyapur, District Devbhumi Dwarka, Gujarat.

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

The Member Secretary informed the Committee that the Project Proponent vide email dated 17.09.2022 sought deferment stating that the Project Proponent was not in a position to present themselves due to unforeseen circumstances. Therefore, the EAC **deferred** the proposal as per the request of the Project Proponent.

**1.3 Proposal for amendment in EC dated 17.08.2022 for Expansion in Environmental Clearance of Gudipadu Limestone mine of M/s Sagar Cements (R) Limited in the mine lease area of 454.59 ha for increase in Production Capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh - [F.No. J-11015/231/2012.IA-II(M), Proposal No: IA/AP/MIN/289641/2022 dated 29.08.2022, Consultant: B.S. Envi-Tech Pvt. Ltd.] - Amendment in EC**

The instant proposal is for amendment in EC dated 17.08.2022 for Expansion in Environmental Clearance of Gudipadu Limestone mine of M/s Sagar Cements (R) Limited in the mine lease area of 454.59 ha for increase in Production Capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:



- i. The mine lease area is located between Latitude 15°04'51.55"N to 15°07'28.07"N and Longitude: 77°57'55.91"E to 78°00'16.56"E. The mine lease area falls under the Survey of India Toposheet No: 57 E/16 & 57 I/4 and falls in Seismic Zone - II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals of the schedule of the EIA Notification, 2006 and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. The project was granted Environmental Clearance (EC) by the Ministry vide its letter No.J-11015/231/2012.IA-II(M) dated 17.08.2022 based on recommendation of sectoral EAC meeting held on 30<sup>th</sup>May, 2022.
- iv. The Project Proponent submitted that because of the increase in the clinker production capacity from 0.75 to 1.00 MTPA through modernization, limestone requirement shall increase from 1.0 to 1.5 MTPA to achieve 1.0 MTPA of Clinker. PP also submitted that in view of the above it is necessitating to amendment in EC dated 17.08.2022 to use the existing 350 TPH crusher and conveyor for achieving 1.5 MTPA of Limestone production from Gudipadu Limestone Mine for 1.0 MTPA clinker production (Unit - I) till the installation of new crusher and Conveyor. Further, PP submitted that the 1200 TPH New crusher and conveyor will be commissioned for the proposed expansion to achieve 4.7 MTPA of limestone production. After commission of new conveyor belt of 1200 TPH the existing conveyor of 350 TPH will be stopped. The Project Proponent sought for amendment in EC dated 17.08.2022 as mentioned below in Table.

<b>S. No</b>	<b>Reference of Environmental Clearance (EC) dated 17.08.2022</b>	<b>As per Environmental Clearance (EC) dated 17.08.2022</b>	<b>Amendment sought by the Project Proponent</b>	<b>Remarks submitted by the Project Proponent</b>
1	Specific Condition 5 (A), iii, Pg. No: 12	The expansion of Limestone production from 1.0 MTPA to 4.70 MTPA will be operational only after the commissioning of new crusher of 1200 TPH along with the Over Land Belt Conveyor (OLBC). Till then the capacity of the mine will remain up to 1.0 MTPA. New crusher and conveyor will be tested for 1.0 MTPA first and then	To use the existing 350 TPH crusher and conveyor for achieving 1.5 MTPA of Limestone production from Gudipadu Limestone mine for 1.0 MTPA clinker production (Unit - I) till the installation of new crusher and conveyor.	Project Proponent submitted that because of the increase in the clinker production capacity from 0.75 to 1.00 MTPA through modernization, limestone requirement shall increase from 1.0 to 1.5 MTPA to

		<p>the mine shall commission for 4.70 MTPA. The commission of new crusher of 1200 TPH capacity along with the conveyor shall be intimated to the Ministry's Integrated Regional Office. Accordingly, SPCB shall not grant Consent to Operate (CTO) for the expansion capacity of 4.70 MTPA production.</p>		<p>achieve 1.0 MTPA of Clinker.</p>
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**3. Observation and Recommendation of the Committee:**

The EAC noted that the Project Proponent informed that the instant proposal obtained Environmental Clearance (EC) on 17.08.2022 for mining of Limestone in Gudipadu Limestone mine of M/s Sagar Cements (R) Limited for expansion in production capacity of Limestone from 1.0 MTPA to 4.70 MTPA with Total Excavation of 4.85 MTPA (Limestone: 4.70 MTPA + Top Soil: 0.15 MTPA) along with existing crusher of 350 TPH capacity and proposed crusher of 1200 TPH capacity in the mine lease area of 454.59 ha, located at Village Gudipadu, Mandal Yadiki, District Ananthapuramu, Andhra Pradesh.

Further, the Project Proponent informed the EAC that in EC dated 17.08.2022 one of the specific condition 5 (A), iii, specifically mentioned that *“The expansion of Limestone production from 1.0 MTPA to 4.70 MTPA will be operational only after the commissioning of new crusher of 1200 TPH along with the Over Land Belt Conveyor (OLBC). Till then the capacity of the mine will remain up to 1.0 MTPA. New crusher and conveyor will be tested for 1.0 MTPA first and then the mine shall commission for 4.70 MTPA. The commission of new crusher of 1200 TPH capacity along with the conveyor shall be intimated to the Ministry's Integrated Regional Office. Accordingly, SPCB shall not grant Consent to Operate (CTO) for the expansion capacity of 4.70 MTPA production”*. The EAC observed that the Project Proponent is requesting for amendment in EC for the above said specific condition.

The Project Proponent informed the EAC that the because of the increase in the clinker production capacity from 0.75 to 1.0 MTPA through modernization, limestone requirement will increase from 1.0 to 1.5 MTPA and it is necessitating to amendment in EC dated 17.08.2022 to use the existing 350 TPH crusher and conveyor for achieving 1.5 MTPA of Limestone production from Gudipadu Limestone

Mine for 1.0 MTPA clinker production (Unit - I) till the installation of new crusher and Conveyor.

The EAC was of the view that whether the existing crusher of 350 TPH capacity will be sufficient to bear the Limestone capacity of 1.5 MTPA or not? The Project Proponent informed the EAC that crusher of 350 TPH capacity when runs for 20 hours it will be 7000 TPD. PP also informed the EAC that whenever it is necessary, the mine operation will be on two shift basis i.e., 8hrs/shift and hence it will be sufficient to bear the additional limestone capacity by extending the operation of working hours. Further, the Project Proponent informed the EAC that the existing crusher of 350 TPH capacity will be dismantled after the commissioning of new crusher of 1200 TPH capacity along with the conveyor. The EAC asked about the timeline for installation and commissioning of new crusher of 1200 TPH capacity along with the conveyor? The PP informed that it will take 2-3 years for installation and commissioning of new crusher of 1200 TPH capacity along with the conveyor.

The EAC opined that while appraising the proposal for grant of Environmental Clearance (EC), detailed deliberations on dismantlement of existing crusher of 350 TPH capacity and proposal of new crusher of 1200 TPH capacity along with the conveyor was discussed in detail and the EAC was of the view that the unless the new crusher and conveyor is in place, the Project Proponent shall not increase the production capacity from the existing EC capacity of 1.0 MTPA. Therefore, the EAC did not accept the request of the Project Proponent and the EAC **returned the proposal in present form.**

**1.4 Marwar Munda Limestone mine (ML-1) of M/s Ambuja Cement Ltd for expansion in Limestone Production Capacity from 2.5 million TPA to 3.0 million TPA (20%) in first phase with Topsoil: 0.102 million TPA, Waste: 1.030 million TPA (Total excavation: 4.132 million TPA) along with the existing crusher capacity of 2000 TPH in the mine lease area of 699.9 Ha, located at Villages: Rupasar, Inana, Mundwa and Bhadana Tehsil & District- Nagaur, Rajasthan - [F.No: J-11015/421/2005-IA.II(M), Proposal No: IA/RJ/MIN/290348/2022 dated 27.08.2022, Consultant: J.M EnviroNet Pvt Ltd] - EC under Para 7 (ii) (a) of EIA Notification, 2006**

The proposal is for grant of Environmental Clearance under Para 7 (ii) (a) of EIA Notification, 2006 as per Ministry's OM dated 11.04.2022 and 30.05.2022 for Marwar-Munda Limestone mine (ML-1) of M/s Ambuja Cement Ltd for expansion in Limestone Production Capacity from 2.5 million TPA to 3.0 million TPA (20%) in first phase with Topsoil: 0.102 million TPA, Waste: 1.030 million TPA (Total excavation: 4.132 million TPA) along with the existing crusher capacity of 2000 TPH in the mine lease area of 699.9 Ha, located at Villages: Rupasar, Inana, Mundwa and Bhadana Tehsil & District- Nagaur, Rajasthan.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude: 27°03'16.12"N to 27°07'27.24"N and Longitude: 73°49'49.11"E to 73° 51'31.58"E. The mine lease area falls under the Survey of India Toposheet No: Core Zone: G43B16 (45 E/16) and Buffer Zone: G43B12 (45E/12); G43B16 (45E/16); G43H13 (45F/13) and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals of the schedule of the EIA Notification, 2006 and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. The project was granted Environmental Clearance (EC) by the Ministry vide letter dated 18.01.2007 for production capacity of 2.5 MTPA of Limestone in the mine lease area of 699.9 ha in favour of M/s Indo Nippon Special Cements Limited. Public hearing of the project held on 29.01.2004. Then, the Project Proponent obtained Transfer of EC from M/s Indo Nippon Special Cements Limited to M/s Ambuja Cement Ltd vide letter dated 20.04.2017.
- iv. Details of Mine lease:
  - a. The Project Proponent submitted that initially mining lease was granted by the State Govt. vide Lr No. PO 4/31/Khan/Gr-2/87 dated 10.06.1988 over an area of 1000 ha in favor of M/s. KEC International. Mining lease deed was executed on 10.06.1988 and registered on 21.09.1988 for a period of 20 years valid up to 20.09.2008 in favor of M/s. KEC International.
  - b. Then, the mining lease was transferred to M/s. Indo Nippon Special Cements Ltd. vide Lr no. P12(10) Khan/Gp-2/03 dated 08.01.1998. M/s. Indo Nippon Special Cements Ltd surrendered 300.1 ha out of 1000 ha and it was effective from 02.02.1995 and the actual mine lease area is 699.9 ha.
  - c. Thereafter, M/s. Indo Nippon Special Cements Ltd amalgamated into M/s. Gujarat Ambuja Cement Limited as per the judgement passed on 09.01.2007 in Petition No 34/2006 of the Hon'ble High Court, Ahmedabad, Gujarat. Subsequently, change of company name from M/s. Gujarat Ambuja Cement Limited to M/s. Ambuja Cement Limited was done on 10.04.2007.
  - d. Again, name change in mining lease from M/s. Indo Nippon Special Cements Ltd to M/s. Gujarat Ambuja Cement Limited and from M/s. Gujarat Ambuja Cement Limited to M/s. Ambuja Cement Limited was approved from State Govt vide Lr No P-12 (10) Mine/Group2/03 dated 24.08.2009. Accordingly, mining lease deed was executed on 22.09.2010 and registered on 18.10.2010 in favor of M/s. Ambuja Cement Limited.
  - e. Then, PP obtained 1<sup>st</sup> renewal of mine lease from the State Govt vide order No F 12(10) Khan/Gr-2/2003 dated 24.03.2010 which was effective from 21.09.2008 to 20.09.2028 and mine lease deed was executed on 29.08.2011.

- f. The State Govt. vide Lr no ME/Nagaur/CC-1/Major/ML 03/87/1593, dated 24.02.2015 have extended the validity of the mine lease period upto 20.09.2038. Accordingly, PP made the rider agreement between the State Govt. and M/s. Ambuja Cement Limited on 04.10.2017 for the period upto 20.09.2038.

v. Land Use/Land Cover of the Mine lease area:

Private Agriculture land	230.87 Ha
Government land	469.03 ha
Total Mining lease area (MLA)	699.9 ha
Private land for crusher, workshop & other infrastructure outside the MLA	None

vi. Details of Mining Plan:

Modified Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	584(4)(3) (1909)/2021-22-RCOM-AJM
	Dated	21.06.2022
	Mineral	Limestone
	Mine lease area	699.9 ha
	Validity	2022-23
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanized Opencast Mining Method	
Total Geological Resources	157.77 million Tonnes	
Mineable Reserves	132.57 million Tonnes	
Life of mine	38 years	
Bench Height	6 m	
Bench Width	12 m	
Individual bench slope	75°	
Overall pit slope	45°	
Crusher	Existing crusher: 2000 TPH	
RoM output size	Max. 1.00 m <sup>3</sup>	
Transportation details	The Limestone mined out from this Mine is transported via haul road to the crusher of 2000 TPH which has been installed in the mine for crushing with the dumper capacity of 50 tonnes. The crushed limestone from crusher is directly dispatched to its existing cement plant (~3.0 Km in SW direction from mining lease) via overland belt conveyor of length ~3.5 km.	
Dumpers capacity	50 Tonnes	
Topsoil	PP reported that as on date 12,500 tonnes of Topsoil was generated and utilized for the development for plantation. During plan period it is estimated that about 81,000 Tonnes of Topsoil and during conceptual	

	period about 1.35 million tonnes of Topsoil will be generated and will be utilized for plantation and green belt development.
OB/Waste	PP reported that as on date 5,95,670 Tonnes of waste was generated and dumped over an area of 4.65 ha. During plan period it is estimated that about 1.023 million tonnes of waste will be generated and dumped over an area of 1.02 ha and during conceptual period about 25.11 million tonnes of waste will be generated which will be backfilled in an area of 214 Ha and it will be rehabilitated with the plantation.
Conceptual Land use	PP reported that at the conceptual stage the total excavated area will be 552 ha (338 ha will be converted into water reservoir and 214 ha area will be backfilled followed by plantation), total area to be covered under greenbelt/plantation will be 72.77 ha and 214 Ha on the backfilled area. Area under infrastructure will be 16.98 ha and 58.15 Ha area will be undisturbed at the expiry of lease.
Water Table Level	Pre-Monsoon: 218-254 m AMSL (83 m – 119 m bgl) Post Monsoon: 218-256 m AMSL (81 m – 119 m bgl)
Present working depth	322 m AMSL
Ultimate working depth	295 m AMSL (42 m bgl)
Groundwater intersection	PP reported that there will be no groundwater intersection.

vii. Water requirement:

Total water requirement	80.0 KLD		Particulars	Existing	Additional
	Fresh water	80.0 KLD	Dust Suppression, Equipment cooling and work shop	50.0 KLD	20.0 KLD
	Treated Water	NIL	Greenbelt Development	10.0 KLD	10.0 KLD
			Domestic Use	5.0 KLD	5.0 KLD
Source	PP reported that water will be utilized from Matasukh Lignite Mines of M/s. Rajasthan State Mines and Minerals Limited after treatment. It is having a pipeline of 36 Km.				
Permission	The agreement has been made between M/s. Ambuja Cements Limited and M/s. Rajasthan State Mines and Minerals Limited on 06.02.2019				

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

Particulars	Particular's Name	Distance & Direction
Nearest village	Habitation of Roopasar	~0.2 km, SE
	Habitation of Badhana	~2.0 km, East
Nearest Town / City	MrawarMundwa Town	~2.7 km, SW
Nearest State/National Highway	NH-58	~1.5 km, SW
	SH-19	~5.5 km, North
	SH-39	~5.5 km, SW
Nearest Railway Station	MarwarMundwa	~3.5 km, SW
Nearest water bodies	PunadhiNadi	~4.5 km, NNW
	KiyarNadi	~7.5 km, SSW
	DendaNadi	~7.5 km, SSE
	RamalwaliNadi	~9.5 km, SSW

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

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	PP reported that no forest land involved within the mine lease area. No National Park and Wildlife Sanctuary in the study area and the Proponent obtained the letter for the same from DCF, Nagaur vide letter no F()Survey/DCF/2022-23/4869 dated 18.08.2022.
National Park	No	
Wildlife Sanctuary & Forest	No	
Eco-Sensitive Zone (ESZ)/Eco Sensitive Area (ESA)	No	
Critically Polluted Areas	No	PP reported that no Critically Polluted areas as notified by the Central Pollution Control Board are located within 10 km from the boundary of mining lease.
Aravalli range	No	PP also submitted the certificate from the Department of Mines and Geology, Rajasthan has been received vide letter dated 26.07.2022 stating that the mine lease area does not fall under Aravalli range.
Schedule-I species	Yes	Pea Fowl and Monitor lizard
Wildlife Conservation Plan	Yes	PP submitted that Wildlife Conservation Plan has been approved by DCF, Nagaur vide letter dated 08.08.2022 with a budget of Rs. 469.4 Lakhs

x. Green belt/plantation details:

Proposed area for green belt/plantation	286.7 ha
Budget for green plant & plantation	Rs. 3078.27 Lakhs

till the end of life of mine.	
Budget for nursery	--
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	9.0 ha under 7.5 m lease periphery.
50 m safety zone of nallah, roads, electric lines	3.7 ha along the safety barrier of roads.
500 m safety zones of nearest habitation villages	-
Additional information (if any)	214 ha area on backfilled area and 60 ha on un-worked area.

- xi. **Baseline Details:** The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Winter Season i.e., December, 2021 to February, 2021. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period	December, 2021 to February, 2022				
AAQ parameters at 11 locations	Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	Standard, $\mu\text{g}/\text{m}^3$	
	PM10	59.2	85.6	100	
	PM2.5	28.6	47.8	60	
	SO2	5.9	15.2	80	
	NOx	12.8	28.9	80	
AAQ modeling	Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard
	PM10	85.6	3.65	89.25	100
	PM2.5	47.8	1.46	49.26	60
	SO2	15.2	1.81	17.01	80
	NOx	28.9	1.68	30.58	80
Noise level at 11 locations	Day Time: 53.4 to 64.2 Leq dB (A) Night Time: 42.5 to 51.5 Leq dB (A)				
Ground water quality at 10 locations	PP submitted that pH ranged from 7.69 to 8.16 indicating slightly alkaline to moderately alkaline nature. The values of total hardness (356.4 to 836.6 mg/l), alkalinity (402.1 to 719 mg/l), chlorides (694.8 to 1423.5 mg/l) and total dissolved solids (1998 to 3542 mg/l) were above the permissible limits.				
Surface water quality at 9 locations	PP reported that pH ranged from 7.20 to 8.09. Total hardness varied from 50.36 to 129.87 mg/l, alkalinity varied from 45.12 to 163.65 mg/l, total dissolved solids varied from 79.0 to 284.0 mg/l, BOD varied from 6.5 to 9.2 mg/l, COD varied from 18 to 27 mg/l.				



	The level of DO is varied from 6.5 to 6.9 mg/l.
Soil quality at 10 locations	PP reported that the soil samples were reddish brown in colour and silty loam in texture. All soil samples are slightly above alkaline having pH range from 7.78 to 8.23; where nutrients remain in available form in the soil. Water holding capacity (36.64 % to 44.34 %) and bulk density (1.34 to 1.47 g/cc) were ideal for the crops. Soil fertility is good with nitrogen and potassium sufficient in some soil samples in the study area. Other nutrients were present in the soil samples, namely calcium (3000.6 to 4884.25 mg/kg), magnesium (410.3 to 737.85 mg/kg) and zinc (30.26 to 36.06mg/kg).
Traffic Survey	PP reported that the total excavated limestone will be 11,667 TPD (Peak production will be 13417 TPD) and will be transported to the crusher located in the mine lease area via dumpers through haul roads. Crushed limestone is transport to the cement plant via overland belt conveyor of length ~3.5 km. No public road is being used for the purpose of transportation.

xii. The Project Proponent submitted that earlier public hearing for existing limestone production capacity of 2.5 million TPA was held on 29.01.2004. Now, the proposal is for grant of Environmental Clearance (EC) under Para 7 (ii) (a) of EIA Notification, 2006 as per MoEF&CC Office Memorandum No IA 3-22/10/2022-IA.III [E 177258] dated 11.04.2022 and 30.05.2022 and as per this said Office Memorandum, public hearing is not required for this project.

xiii. Details of CTE/CTO, Certified Compliance report, Past Production:

Particulars	Letter no., date and details
Consent to Establish (CTE)	PP submitted the Consent to Establish issued by the Rajasthan State Pollution Control Board vide order no: F(Mines)/Nagaur(Nagaur)/ 4072(1)/2019-2020 /3745-3749, Order No: 2019- 2020/Mines/10002, dated 16.01.2020 and this consent was valid for a period from 20.06.2017 to 31.05.2022 or commencement of production whichever is earlier.
Consent to Operate (CTO)	PP submitted the Consent to Operate issued by the Rajasthan State Pollution Control Board vide order no: F(Mines)/Nagaur(Nagaur)/4072(1)/2019-2020/2827 2831, Order No: 2020- 2021/Mines/10174 dated 15.09.2020 for production capacity of 2.50 million metric tons per annum and this consent is valid for a period from 15.09.2020 to 31.08.2025.
Certified EC compliance report	PP submitted the certified compliance report issued by the Integrated Regional Office, Jaipur dated

	04.08.2022 for the EC's dated 18.01.2007 & 20.04.2017. Site visit was conducted on 25.07.2022.																																			
Certified past production	<p>PP submitted the past production details since the inception of mine authenticated by the Asst. Mining Engineer vide Lr No No.-ME/Nagaur/Number/ML No-111/2007//2022-23/2044 dated 23.08.2022 for the period 2017-18 to 2022-23 (31.07.2022).</p> <table border="1"> <thead> <tr> <th>S. No</th> <th>Year</th> <th>Production (MTPA)</th> <th>EC Capacity (MTPA)</th> <th>Excess production</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2017-18</td> <td>-</td> <td>2.5</td> <td>-</td> </tr> <tr> <td>2</td> <td>2018-19</td> <td>-</td> <td>2.5</td> <td>-</td> </tr> <tr> <td>3</td> <td>2019-20</td> <td>-</td> <td>2.5</td> <td>-</td> </tr> <tr> <td>4</td> <td>2020-21</td> <td>0.0008565</td> <td>2.5</td> <td>-</td> </tr> <tr> <td>5</td> <td>2021-22</td> <td>2.01</td> <td>2.5</td> <td>-</td> </tr> <tr> <td>6</td> <td>2022-23 (31.07.2022)</td> <td>1.12</td> <td>2.5</td> <td></td> </tr> </tbody> </table>	S. No	Year	Production (MTPA)	EC Capacity (MTPA)	Excess production	1	2017-18	-	2.5	-	2	2018-19	-	2.5	-	3	2019-20	-	2.5	-	4	2020-21	0.0008565	2.5	-	5	2021-22	2.01	2.5	-	6	2022-23 (31.07.2022)	1.12	2.5	
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xiv. Rehabilitation & Resettlement (R&R):

R & R details	PP reported that the total mining lease area is 699.9 ha which spreads in three villages Rupasar, Inana, Mundwa and Bhadana, out of which, 469.03 ha is Govt. Land and 230.87 ha is Private Land. PP also reported that total no. of Project Displaced Families is 52 and Project Affected Families is 110. All Khatedari land of Mining lease (ML-I) area has been acquired by Rajasthan State Industrial Development & Investment Corporation Ltd. (RIICO), Jaipur under land acquisition act, 1894 and no rehabilitation and resettlement is to be done.
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xv. The Project Proponent reported that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

xvi. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP submitted the Affidavit in a non-judicial stamp paper bearing no: BF 788194 dated 23.08.2022 stating that the company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
Project Proponent submitted an Undertaking vide Letter	PP submitted an undertaking stating that the conditions laid down in Standard Terms of Reference

dated 23.08.2022	prescribed by MoEF&CC, New Delhi have been complied with and the data submitted and the information presented in this report are factually correct.
Consultant submitted an Undertaking dated 23.08.2022	The Consultant submitted an undertaking to the effect that the standard Terms of Reference (ToRs) prescribed by MoEF&CC, New Delhi uploaded on PARIVESH have been complied as per data/details provided by Project Proponent & as per Modification in Review of Mining Plan approved by IBM and the data submitted are factually correct.
Plagiarism Certificate checked on 22.08.2022	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. 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.

xvii. Details of Environment Management Plan (EMP):

S. No.	Activities	Additional	
		Capital	Recurring
<b>Mitigative Measures</b>			
1.	Water Tanker for water sprinkling on Haul Road	0.00	10.00
2.	Fixed Water Sprinkler on Haul Road (Approx 2.0 km length)	105	2.00
3.	Greenbelt on 7.5 m lease periphery (7.0 ha with 14000 saplings) and 3 ha plantation on un-worked area with 6000 saplings	57.0	0.00
4.	Plantation in 271 ha area (214 ha backfilled + 57 ha unworked area) with 542000 saplings till year 2038	0.00	79.15
5.	Protection for Plantation (Fencing around area)	0.00	4.36
6.	Maintenance of Bag filter system & Crusher system	0.00	3.00
7.	Installation of belt curtains at Crusher Hopper	4.0	0.70
8.	Rain water harvesting structure near Mines office (4 nos.)	5.0	0.50
9.	Provision of Construction of Garland Drain (Approx. L*W*H= 2200m x 1m x 0.6m) & Retaining Wall at dump (Approx. L*W*H= 2200m x 1.5m x1m)	5.0	0.30
	Sub total	176.0	100.01
<b>Monitoring</b>			
1.	Installation of continuous Ambient Air Quality Monitoring Station	160	2.5
2.	Ambient Air Quality Monitoring Station & Installation of	0.00	0.12

	AAQMS Station Stand (Manual)		
3.	Ground Water level Analysis (PZ Wells, 3 times in a year) Monitoring	0.00	0.11
4.	Workshop Waste Water Quality Analysis (monthly)	0.00	0.04
5.	Blast Vibration Monitoring Equipment	0.00	0.30
6.	Blast Vibration Monitoring Equipment	0.00	0.5
7.	Work Place Noise Monitoring	0.00	0.03
	Sub total	160.0	3.60
Grand total		336.0	103.61

xviii. Details of project cost and employment:

Particulars	Budget (Rs. In Crore)
Total Cost for EMP (Capital Cost of EMP + capital cost of public hearing)	3.36
Project Cost	25.19
Employment	32 Persons

### **3. Observation and Recommendation of the Committee:**

The EAC noted that the instant proposal is for grant of Environmental Clearance under Para 7 (ii) (a) of EIA Notification, 2006 as per Ministry's OM dated 11.04.2022 and 30.05.2022. The EAC also noted that the EIA report has been prepared for the maximum production capacity of 3.5 million TPA i.e., 40% as per Ministry's OM dated 30.05.2022 and now the project proponent applied for expansion in Limestone production capacity from 2.5 million TPA to 3.0 million TPA i.e., 20% in first phase as per Ministry's OM dated 11.04.2022. The EAC asked the Project Proponent that the EIA report has been prepared for 40% increase in production and whether there will be any increase in production more than 40% in future or not? The Project Proponent informed the EAC that the EIA report has been prepared for the proposed higher capacity i.e., 40% as per Ministry's OM dated 30.05.2022 and there will be not further increase in production in future. The EAC also noted that the Project Proponent has submitted the compliance of the Standard Terms of Reference (ToR) for non-coal mining projects.

The Project Proponent presented the KML before the EAC and informed that that the crusher of 2000 TPH is located in the southern side of the mine lease area. The Limestone mined out from this mine is transported via haul road to the crusher for crushing through dumper capacity of 50 tonnes. The crushed limestone from crusher is directly dispatched to its existing cement plant via overland belt conveyor of length ~3.5 km. Further, the Project Proponent informed that there is no Reserve/Protected Forest, National Park, Wild Life Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/ Elephant Reserves within 10 km radius of the study area. PP also informed that no public road is being/will be used for transportation of limestone to existing cement plant.

The Project Proponent informed the EAC that the total mine lease area is 699.9 ha and there is no change in category of project, no change in mining lease area (699.9 ha) & Mining Technology (Opencast-mechanized) and no additional land acquisition involved. Further, PP informed the EAC that the EIA report has been prepared for expansion in limestone production capacity from 2.5 million TPA to 3.5 million TPA (40%) in two phases. Predicted environmental quality parameters due to expansion projects are within the prescribed norms and the same will be maintained as per prescribed norms. There will be increase in greenbelt/plantation area from 263.42 ha (37.63%) to 286.7 ha (40.96%). Certification of compliance of EC conditions has been issued by Ministry's Integrated Regional Office (IRO) on 04.08.2022 the EC's dated 18.01.2007 & 20.04.2017 and site visit was conducted by IRO on 25.07.2022. Public hearing for the project has been already conducted for the existing limestone production capacity of 2.5 million TPA on 29.01.2004.

The Project Proponent informed the EAC that the predominant wind direction is from NNE-SSW. The EAC noted that the Project Proponent informed that the post project scenario of ambient air quality of PM<sub>10</sub> observed to be 85.9 µg/m<sup>3</sup>, PM<sub>2.5</sub>: 47.8 µg/m<sup>3</sup>, SO<sub>2</sub>: 15.2 µg/m<sup>3</sup> and NO<sub>2</sub>: 28.9 µg/m<sup>3</sup> and are well within the limits of National Ambient Air Quality Standards (NAAQS). The Project Proponent informed the EAC that the maximum production achieved was 2.01 MTPA during the year 2021-22 against the EC capacity of 2.5 MTPA. PP informed that an area of 338.0 ha of excavated area will be converted into water body. The EAC was of the view that the Project Proponent needs to undertake the adequate bench plantation and on the terrace of the waste dump to prevent the soil erosion. The Project Proponent informed the EAC that the Chief Conservator of Forest vide letter dated 22.09.2022 has forwarded the revised wildlife conservation plan to the Principal Chief Conservator of Forests and Chief Wildlife Warden, Jaipur for approval. PP also submitted the copy of letter dated 22.09.2022 vide email dated 28.09.2022.

Based on the above discussions held, the EAC during 28 to 29<sup>th</sup> September, 2022 **recommended** the proposal for grant of Environmental Clearance under Para 7 (ii) (a) of EIA Notification, 2006 as per Ministry's OM dated 11.04.2022 and 30.05.2022 for Marwar-Munda Limestone mine (ML-1) of M/s Ambuja Cement Ltd for expansion in Limestone Production Capacity from 2.5 million TPA to 3.0 million TPA (20%) in first phase with Topsoil: 0.102 million TPA, Waste: 1.030 million TPA (Total excavation: 4.132 million TPA) along with the existing crusher capacity of 2000 TPH in the mine lease area of 699.9 Ha, located at Villages: Rupasar, Inana, Mundwa and Bhadana Tehsil & District- Nagaur, Rajasthan subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects:

- i. The Environmental Clearance will be valid till 20.09.2038 only.

- ii. The real time data generated from the continuous ambient air quality monitoring stations (CAAQMS) should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB. The Project Proponent needs to monitor the air quality, noise level and ground vibration during drilling and blasting at the edge of the mine, near the village, near the agriculture field, crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.
- iii. The Project Proponent needs to avoid the secondary blasting and shall use hydraulic rock breaker for breaking the boulders.
- iv. The Project Proponent shall ensure that the no public road shall be used for the purpose of transportation.
- v. There shall be no permanent external OB dump left created at the end of the life of the mine.
- vi. The Project Proponent shall ensure that the protection and management of the water bodies should include provision of utilizing available water to the villagers by installing solar pumps as well as PP shall explore the possibility for installing floating solar panels for generation of electricity and distribution of power supply to the villagers.
- vii. The Project Proponent needs to analyse the quality of the soil once in six months in the adjoining agriculture field in the vicinity of the mine lease area. The Project Proponent needs to review any damage of the crops due to mining activity and crushing operations and accordingly the Project Proponent needs to undertake necessary steps to prevent any damage.
- viii. The Project Proponent needs to take adequate measures to improve the quality of water by proper treatment. PP needs to provide the RO plant for the purpose of drinking for the people coming under the zone of influence of this mining activity.
- ix. The Project Proponent needs to install the permanent water sprinklers along the haul road of length ~2.0 km.
- x. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 3.36 Cr. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xi. The Project Proponent needs to complete the plantation over an area of 11.0 ha under green belt within one year from this date of issue of grant of EC. The

Project Proponent needs to undertake the adequate bench plantation and on the terrace of the waste dump to prevent the soil erosion and also along the village road.

- xii. The Project Proponent shall ensure the survival rate of 95% for planting the gap plantation and new plantation. 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.
- xiii. 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.
- xiv. The Project Proponent needs to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets.
- xv. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xvi. 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.

**Day 2: 29.09.2022 (Thursday)**

**2.1 Sultanpur Thanda Limestone Mine of M/s NCL Industries Limited for expansion of production of limestone from 0.05 to 1.0 MTPA with Total Excavation of 1.0 MTPA [Limestone – 1.0 MTPA (ROM) and Waste/Reject/IB/OB/Top Soil – Nil] in the mine lease area of 42.83 Ha in Survey No 540 (P), located at Pedaveedu Village, Matampalli Mandal, Nalgonda District, Telangana - File. No: J-11015/159/2016-IA.II(M), Proposal**

**No:IA/TG/MIN/53618/2007 dated 06.02.2019, Consultant: BS Envi-Tech (P) Ltd]  
– Reconsideration of Environmental Clearance (Violation under SOP)**

The instant proposal is for reconsideration of Environmental Clearance for mining of Limestone in Sultanpur Thanda Limestone mine for expansion of production of limestone from 0.05 to 1.0 MTPA with Total Excavation of 1.0 MTPA [Limestone – 1.0 MTPA (ROM) and Waste/Reject/IB/OB/Top Soil – Nil] in the mine lease area of 42.83 Ha located in Survey No 540 (P), at Pedaveedu Village, Matampalli Mandal, Nalgonda District, Telangana.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude:16°42'44.50"N to 16°43'15.60"N and Longitude: 79°50'19.20"E to 79°50'58.20"E. The mine lease area falls under the Survey of India Toposheet No: 56 P/14 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 Telangana-Andhra Pradesh located at a distance of 1.0km, S from the mining lease boundary and appraised at the Central level.
- iii. Details of previous EAC meeting:
  - a. The proposal was earlier considered in the 8<sup>th</sup> EAC Meeting held during August 27<sup>th</sup> -28<sup>th</sup>, 2019 and the PP not able to attend the meeting. The Committee therefore deferred the proposal and was of the view that PP should submit the past production details duly authenticated by DMG for examining the proposal in light of Common Cause Judgment dated 02.08.2017 and S.O. 804(E) dated 14.03.2017. In this regard, the Ministry sought additional details on 25.09.2019. Since the PP did not submit the information, the proposal was delisted from the PARIVESH portal on 20.05.2020. Then, the PP relisted the proposal on 17.02.2021 and submitted the information vide Lr. No: NCL/Mine/EC/MoEFCC/ADS/ 2021 dated 02.02.2021 for the additional details sought in 8<sup>th</sup> EAC Meeting held during August 27<sup>th</sup> -28<sup>th</sup>, 2019.
  - b. The proposal was again considered in 29<sup>th</sup> EAC (Non-Coal Mining) meeting held during 15<sup>th</sup> -17<sup>th</sup> March, 2021. During the EAC meeting, the Project Proponent informed the Committee that there is excess of the production against the EC capacity of 50,000 TPA during the period 2015-16 (52,000 TPA), 2016-17 (51,000 TPA) and 2018-19 (50,021 TPA). The Committee was of the view that this proposal is a violation of the EIA Notification 2006 and subsequent amendments as PP has enhanced the production against the approved EC capacity of 50,000 TPA. The following principle as approved by the Competent Authority with respect to consideration of violation cases to be followed:



- i. Send the matter to the Sector EAC for consideration of the case on merit.
- ii. Take action against the alleged violation as per law.
- iii. Do not wait for either the evidence of action having been started or violation proceedings to finish before taking up the case on merit.
- iv. The EC if given after consideration on merit would be valid from the date it is given and not with retrospective effect. For the period before it, if violation is established by the court or the competent authority, the punishment/penalty as per law would be imposed.

In view of the above, the Committee deferred the proposal for want of the additional information. Then, PP vide letter NCL/Admin//2021-22 dated 30.06.2021 requested additional time for submission of information sought by the EAC in 29<sup>th</sup> EAC Meeting held during 15<sup>th</sup> - 17<sup>th</sup> March, 2021.

- c. Then, the PP resubmitted the proposal vide no: IA/TG/MIN/53618/2007 dated 07.10.2021 along with the information sought by the EAC in 29<sup>th</sup> EAC Meeting held during 15<sup>th</sup> - 17<sup>th</sup> March, 2021 and accordingly the proposal was considered in the 40<sup>th</sup> EAC (Non-Coal Mining) meeting held during 26<sup>th</sup>– 27<sup>th</sup> October, 2021. During the meeting, the Committee noted that the instant case attracts the Hon'ble Supreme Court Judgment dated 02.08.2017, W.P.C 114 of 2014 in the matter of Common cause Vs Union India and violation of EIA Notification, 2006. The procedure adopted to consider the proposal in the EAC meeting dated 15<sup>th</sup> -17<sup>th</sup>March, 2021 was as per the principal, approved by the Competent Authority with respect to consideration of violation cases. After that the SOP on 07.07.2021 was issued by the Ministry for identification and handling of violation cases under EIA, 2006 and the same has been stayed by the Madurai bench of Hon'ble High Court of Madras vide order dated 15.07.2021. Therefore, the Committee returned the proposal in present form and was of the view that PP should approach Ministry after the final adjudication of the Hon'ble High Court.
- d. The Project Proponent vide Letter Ref: NCL/EC/MoEF&CC/MINE/ 2022 dated 07.02.2022 resubmitted the information in PARIVESH portal on 16.02.2022 as sought by the EAC in 29<sup>th</sup> EAC Meeting held during 15<sup>th</sup> - 17<sup>th</sup> March, 2021 and accordingly the proposal was considered in the 48<sup>th</sup> EAC (Non Coal Mining) meeting held during 28<sup>th</sup> – 30<sup>th</sup> March, 2022. After detailed deliberations made by the Project Proponent and the Consultant, the Committee noted that the PP has not submitted the final closure report issued by the Integrated Regional Office for the non-compliances identified in certified EC compliance report vide Lr No ENV/IRO-HYD/CCR-05/A/2021/33 dated 03.07.2021. The Committee observed that the mine lease area does not fall in the Forest area, but the mine lease area is adjacent to the Reserve Forest about 170m and PP has not submitted the authenticated list of flora and fauna in the study area of 10km radius.

Therefore, the Committee deferred the proposal for want of additional information.

- e. The Project Proponent vide Lr Ref: NCL/EC/MoEF&CC/Mine/2022 dated 26.04.2022 submitted the information on 27.04.2022 in PARIVESH portal and accordingly the proposal was reconsidered in the 51st EAC (Non-Coal Mining) meeting held during 30<sup>th</sup> May, 2022 wherein the EAC deferred the proposal and asked the Project Proponent to submit the requisite information. The Project Proponent submitted the information on 19.07.2022 in PARIVESH portal. The Ministry examined the reply of the project proponent and sought additional details on 08.08.2022 to provide the time frame, progress, budget along with photographs as per JNTU study report. Then, the Project Proponent submitted the information on 22.08.2022 in PARIVESH portal and accordingly the proposal was considered in the 4<sup>th</sup> EAC (Non-Coal Mining) meeting held during 28-29 September, 2022.

Based on observation of EAC and the compliance of observation of EAC made by the Project Proponent are detailed below:

S. No	Observation of EAC	Reply by Project Proponent
1	The committee noted that the mine lease area is in close proximity to the river Krishna and noted that there is a drain which allows the backwater into the mining area and the rainfall and surface outflow from the mine drains into the river Krishna. Hence, the Project Proponent needs to submit the detailed report on the engineering design for garland drain, settling tank and check dams and its efficacy through recognized institution for further appraisal of the proposal. The study should also include the per day silt load, settling	<p>The Project Proponent submitted the report carried out by Jawaharlal Nehru Technological University Kakinada (JNTUK), Kakinadaon Hydraulic, Hydrological, Geotechnical and Environmental Study of SulthanpurThanda Limestone Mine.</p> <p>PP submitted that the following conclusions arrived and are categorised in to three groups and the same are presented here:</p> <p><b>A. Hydraulic and Hydrological Studies:</b></p> <p>i. The surface runoff estimated from the rational formula has resulted in a discharge of 1.52 m<sup>3</sup>/s considering a rainfall intensity of 1.55 cm/hr. 1.5 times the leased area is considered as the catchment that contributes to the runoff.</p> <p>ii. The capacity of the drains is checked assuming the design discharge is twice the estimated runoff and it was seen that the two drains whose cross-section was provided at 2m X 1.5 m (with a freeboard of 30 cm) can</p>

<p>velocity of the silt, retention time required based on the annual rainfall with a provision to monitor the turbidity of the overflow from the siltation tank as well as monitoring of the turbidity into the drains.</p>	<p>safety carry this discharge. The discharge carrying capacities are found to be 8.40 m<sup>3</sup>/s and 6.69 m<sup>3</sup>/s for the drain of length 350 m (slope 0.017) and for the drain of length 550 m (slope of 0.0119) respectively.</p> <p>iii. Gradually varied Flow computations have shown that the depth of water in the river near the mining area would be 11.75 m above the bed which corresponds to a level of + 56.75 m assuming the bed level in the river to be + 45.00 m.</p> <p><b>B. Geotechnical Studies:</b></p> <p>iv. The stability calculations performed for the bund has shown that the factors of safety against sliding as well as overturning are greater than 1.5 considering the two possible types of bund material (soft clay) and (medium clay), the bund being formed with a mixture of soft and medium clays. For the purpose of weight calculations of the bund the phreatic line is identified following Casagrande Method considering a homogeneous section without filter.</p> <p>v. The seepage calculations have resulted in a possible discharge of 1.99 X 10<sup>-7</sup> m<sup>3</sup>/s per unit length of the bund which is very much negligible.</p> <p>vi. Considering a continuous seepage for 45 days the total volume of water that will possibly enter the pond is found to be slightly less than 700 m<sup>3</sup>. The capacity of the pond being 726 m<sup>3</sup>, a continuous impounding for 45 days can be allowed without dewatering of the pond.</p> <p><b>C. Environment related Studies:</b></p> <p>vii. The bed mobility computations have shown that the bed shear for the drains is greater than the critical bed shear for various flow conditions and as such the bed is erodible. Hence lining of the drain is recommended.</p> <p>viii. The suspended load calculations have</p>
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		<p>shown that the settling velocity as per Stokes criterion is greater than the friction velocity establishing that there will not be any suspended load.</p> <p>ix. Considering the suspended solids present in the mine discharge water it is found that the pond that is provided will get filled to its full capacity by 65 days for the maximum possible discharge condition. However, when the actual estimated discharge of 1.52 m<sup>3</sup>/s is considered, it will take more than 8 months for the pond to get filled to its full capacity.</p> <p>x. No adverse factors are noted w.r.t. the water in and around the mine area as per the water sample analysis data. The presence of fish population in the backwater establish the fact that the water is not harmful.</p> <p>Further, PP submitted that based on the results of the study and the conclusions arrived, the following recommendations are made towards better management and production:</p> <p>i. The Garland drains are to be formed as per the alignment. The drains should start at a level of + 56 and should end near the pond at + 50 m. The cross-section of the drains should be 2.0 m x 1.5 m and the same should be along the length of the bund. The slope of the drains is to be 0.017 and 0.011 for the parts AB and CD.</p> <p>ii. Both the drains are to start from + 56 m and end up at + 50 m to maintain the slopes of 0.017 and 0.011. The slope surface on the mine side is to be lined with cement and the bund side slope can be protected with rip rap which eventually add to free drainage of seepage water in to the drain which can be conveyed in to the pond with ease.</p> <p>iii. A pond of size 22m x 22 m x 1.5 m is to be provided for collecting the surface runoff from the leased area of the mine</p>
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		<p>and its upland area. The water collected in the pond during the period of rains is to be dewatered through mobile water tankers.</p> <ul style="list-style-type: none"> <li>iv. Since the same pond will accommodate any sediment that enters, from time to time the quantity of silt may be observed and to be removed as per the contingency. However, as mentioned in the conclusions, the period by which the pond gets filled under normal conditions is too long (more than 8 months) and hence no alarming situation will be there.</li> <li>v. The water that gets accumulated in the pond is to be pumped out from time to time at regular intervals and the same can be used for wetting of the roads, dust suppression and for gardening in the plant premises.</li> <li>vi. The sediment being of fine particle size can be used as a manure and for clinkering purpose in the cement plant.</li> <li>vii. It is suggested that the top and sides of the bund are provided with some grass and vegetation to avoid erosion by the direct rain that impinges.</li> </ul> <p>PP reported that the construction of Garland drain work &amp; Settling tank will be completed by October, 2022. PP submitted that the work progress involves</p> <ul style="list-style-type: none"> <li>i. Excavation &amp; cleaning - 30% of the work completed</li> <li>ii. Floor PCC - 28% of the work completed</li> <li>iii. Side wall concreting - 35% of the work completed</li> <li>iv. Settling tank construction – will be started in 6<sup>th</sup> week (Commencing from 12, Sep to 25, Sep)</li> </ul> <p>The settling pit will be constructed at the existing level of 48.50 m RL by this the top of the settling pit will be + 50.50 m RL, so that the water from both</p>
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		<p>south and north side will be collected in the pit. PP estimated that the approximate costing for the excavation &amp; construction of Garland drain of 900 m will be Rs. 93.80 Lakhs</p>
<p>2</p>	<p>The Project Proponent needs to explore the likelihood of river water entering into the mine pit below the RL of the HFL and the measures that are required to be taken for prevention of seepage and in the event of seepage to drain out the water through settling tank.</p>	<p>The Project Proponent submitted that the R.L in the river was at + 51.2 m and no water nor dampness was found at all at + 49.0 m which is the bed level in the mining area. Further, no natural seepage was noted even when water accumulated to a depth of 2.0 m behind the bund indicating that there is no seepage through the bund, establishing that any water found occasionally in mine area could be due to the rainfall occurring directly over the mining zone and its surroundings only.</p> <p>However, considering that there would be some seepage through the bund when the water level gets accumulated to + 56.75 m (which is the expected level as per backwater computations), possible quantity of water that may seep through the bund with its top at + 58.34 m, has been estimated using the phreatic line drawn as mentioned in the earlier section. Darcy's law has been considered for the calculation of the quantity of seepage through the body of the bund. When water level is at + 56.75 m, the sloping length of the bund which is in contact with water is 7.174 m.</p> <p>For the present case the value of <math>q = 1.0 \times 10^{-7} \times (1/3.6) \times 7.17 = 1.99 \times 10^{-7} \text{ m}^3/\text{s}/\text{m}</math> length which is very small and negligible. However, a study is taken up to estimate the quantity of water that is likely to be passed through the proposed drains and the size of a pond to store the seepage water temporarily before dewatering the pond. The seepage calculations have resulted in a possible discharge of <math>1.99 \times 10^{-7} \text{ m}^3/\text{s}</math> per unit length of the bund which is very much negligible.</p> <p>The stability calculations performed for the bund has shown that the factors of safety against sliding as well as overturning are greater than 1.5 considering the two possible types of bund material (soft clay)</p>

		<p>and (medium clay), the bund being formed with a mixture of soft and medium clays. For the purpose of weight calculations of the bund the phreatic line is identified following Casagrande Method considering a homogeneous section without filter.</p> <p>Considering a continuous seepage for 45 days the total volume of water that will possibly enter the pond is found to be slightly less than 700 m<sup>3</sup>. The capacity of the pond being 726 m<sup>3</sup>, a continuous impounding for 45 days can be allowed without dewatering of the pond.</p>
3	The Project Proponent needs to submit the Approval Letter from Directorate General of Mines Safety (DGMS) for safety of bund adequacy.	The Project Proponent submitted the permission obtained letter from the Directorate-General of Mines Safety to work in HFL Zone area of Pulichintala dam H.F.L Line in SultanpurThanda lease area on the eastern side in SultanpurThanda-Gundlapalli Limestone mine of M/s NCL Industries Ltd.

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

Date of application	Proposal No	Consideration	Details	Date of accord
05.03.2005	IA/AP/MIN/ 21458/ 1910	-	Enhanced production capacity of limestone from 200 TPA to 7700 TPA of Limestone (MLA 42.82 Ha)	05.10.2006
22.06.2009	IA/AP/IND/ 23052/ 1910	-	Expansion of Cement Plant (Cement 0.30 MTPA to 0.90 MTPA; Clinker 0.60 MTPA to 1.60 MTPA) and Limestone (0.90 MTPA to 2.55 MTPA) involving 3 mine leases namely i. Mining lease I at Mettapalli- 0.78 to 1.5 MTPA (MLA 114.5 acres) ii. Mining lease II at SultanpurThanda – 0.02 to 0.05 MTPA (MLA – 105.32 acres) iii. Mining lease III at	15.12.2009

			Gundlapalli – 0.10 to 1.0 MTPA (MLA – 322.06 acres)	
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v. The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
10.05.2016	IA/TG/MIN/53620/2016	June 22- 23, 2016	Terms of Reference for expansion in Limestone production from 0.05 to 1.50 MTPA (MLA: 42.83 ha)	24.08.2016
20.01.2017	IA/TG/MIN/53620/2016	Jan 30-31, 2017	Amendment in ToR for reduction of production of Limestone from 1.5 MTPA to 1.0 MTPA (MLA: 42.83 ha)	16.02.2017

vi. Details of Mine lease:

S.no	Lease particulars	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area
1	Initial grant of mining lease vide G.O MS. No. 126 in favour of Sri.K. Ramachandra Raju	22.06.1996	Limestone	29.10.1996 to 28.10.2016	Govt., of Andhra Pradesh	Acres 105.32 Gts
2	Transfer of lease from Sri.K. Ramachandra Raju to M/s NCL Industries Ltd vide G.O MS. No. 265	31.07.1998	Limestone	till 28.10.2016	Govt., of Andhra Pradesh	Acres 105.32 Gts
3	Extension of lease period vide G.O.Ms. No.63	23.08.2017	Limestone	29.10.1996 to 28.10.2046	Govt., of Telangana	Acres 105.32 Gts
4	Proceedings vide No. 2876/M/1998	20.02.2018	Limestone	29.10.1996 to 28.10.2046	Govt., of Telangana	Acres 105.32 Gts



vii. Details of executed mine leases.

S.no	Date of grant of Lease execution	Period of Grant		Details
		From	To	
1	Date of entering into original lease deed.	29.10.1996	28.10.2016	-
2	Date of entering into supplementary lease deed	29.10.1996	28.10.2046	Lease deed executed between the Governor of Telangana and M/s NCL Industries Ltd vide Affidavit bearing 321711 dated 20.02.2018

viii. Land Use/Land Cover of the mine lease area:

Private land	Nil
Government waste Land	42.83 Ha
Total Mining lease area (MLA)	42.83 Ha.
Private land for crusher, workshop & other infrastructure outside the MLA	Nil

ix. Details of Mine Plan:

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period	Details
1	Review of Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Lr no. AP/NLG/MP/LST-31/HYD	08.04.2021	2021-2022 to 2025-2026	Limestone mine, 42.83 Ha

- x. The Project Proponent submitted that the mine will be operated by conventional open cast mechanized method of mining which involves deep drilling and blasting for breaking the rock, hydraulic excavator of 3.1m<sup>3</sup> bucket capacity to handle the broken material and loading into 17 tonners tippers for transporting the limestone to crusher located at a distance of 2.0 km from the mine. Drilling operations are conducted with 115mm dia drills with Compressor. For production of 1.0 MTPA of limestone about 667 kg/day of

explosives will be required. PP reported that the estimated Mineable reserves is 25.75 Million Tonnes and the Life of the mine would be 26 years. Overall pit slope will be 45°. There will be no generation of sub-grade as all the grades are above cut-off grade 46.40% of CaO and 10.81% of SiO<sub>2</sub>. No rejects are generated and the entire ROM Limestone is fed to the cement plant. PP reported that the existing depth of mining is 16m bgl and the ultimate depth of mining will be 30m bgl and the water table ranges between 40-45m bgl during Summer and 30-35m bgl during monsoon season and therefore the water table will not be intercepted due to mining activity.

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

Particulars	Villages	Distance & Direction
Nearest Village	SultanpurTanda	0.1km, S
	NCL Colony	1.0km, W
Nearest Town	Suryapet	73.6km, NW
Nearest Highway	National Highway – (NH-9) connecting Vijayawada – Hyderabad	34.7km, NE
Nearest Railway station	Vishnupuram RS	21.8km, W
Nearest water bodies	Krishna River	0.6 Km, S

xii. Water requirement:

Total water requirement	40m <sup>3</sup> /day		Fresh water	-
	Existing water requirement	10m <sup>3</sup> /day	Treated water	-
Source	NCL's other mine pits and from the recycled water of sewage treatment plant located at cement plant			

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

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	DFO, Suryapet vide Rc.No. 75/2017/S dated: 16.08.2019 confirmed that i. The said location does not fall in the Forest area, but the area is adjacent to the Reserve Forest about 170m and it should comply recent guidelines/ circular from the MoEF. ii. There are no dispute issues with the Forest Department but the Waste material mainly the panel cut portions is
National Park	No	
Wildlife Sanctuary & Forest	No	

		<p>being dumped along road side even in Reserve Forest areas which has to be removed and in future waste disposal to be in designated areas as per mine plan.</p> <p>iii. The area is completely pre-existing mining area of NCL Industries Ltd from 1996. Hence, the green cover other conditions that are in mining plan to be properly implemented.</p> <p>iv. No Sanctuary and National parks does not exist within the study area.</p>
Schedule-I species	No	DFO, Suryapet vide Rc.No. 75/2017/S dated: 16.08.2019 confirmed that there are no endangered species of flora existing in the area and it has neither ecological nor economic importance and normal species of brushes and bushes are only seen.

- xiv. The Project Proponent reported that plantation has been already carried out in 1.5 Ha and planted around 1800 saplings with survival rate in the area of 25%. PP submitted that the further green belt will be developed in a barrier of 7.5m width all along the mining lease boundary (2.37ha, 2718 no. of saplings during plan period) and Safety bund at HFL of Pulichintala project of 887m length (0.81ha, 290 no. of saplings during plan period) over an area of 3.188 Ha. PP earmarked budget of Rs 18.06 Lakhs as Capital cost and Rs 6.05 Lakhs as recurring cost towards for the development of green plant & plantation till the end of life of mine.
- xv. The Project Proponent submitted that one season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Winter Season (December, 2016 to February, 2017). The predominant wind directions during this period were from N-NNE-NE-ENE sector accounting to about 74.26% of the total time and about 2.04 % of the time the winds were under calm condition. The concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> for all the 8 AAQM stations were found between 49.6 to 68.1 µg/m<sup>3</sup> and 21.3 to 30.2 µg/m<sup>3</sup> respectively. The concentrations of SO<sub>2</sub> and NO<sub>x</sub> were found to be in range of 10.3 to 13.9 µg/m<sup>3</sup> and 11.3 to 15.6 µg/m<sup>3</sup> respectively. PP also submitted that post project concentration of air pollutants is also well within the prescribed standards of NAAQS. Ambient noise levels were measured at 8 locations in and around the mine site and Noise levels varied from 49.6 to 65.9 Leq dB (A) during day time and from 38.4 to 62.2 Leq dB (A) during night time. Seven ground water and two surface water samples were collected from the study area and the

parameters thus analyzed were compared with IS-10500:2012. All the parameters were found to be well within the limits. PP submitted that as the baseline data collected and analysed was three years old (Dec-2016 to Feb-2017), PP revalidated the baseline data during summer season (March-May, 2021).

xvi. Public Hearing (PH) Details:

Advertisement for PH with date	29.05.2018 in The New Indian Express (English News Paper) and Namasthe Telangana (Telugu News Paper).
Date of PH	29.06.2018
Venue	Mine site, Pedaveedu Village, Matampalli Mandal, Suryapet District
Chaired by	Joint Collector & Addl. District Magistrate, Suryapet District.
Main issues raised during PH	Greenbelt development, drinking water, employment, road maintenance, social welfare measures, medical facilities, construction of fencing to prevent falling of cattle, restrictions on the speed of the vehicles, water purification plant, library, skill development centre, maintenance of road, provision of hospital, protection of forest, water sprinkling,
Budget proposed for addressing issues raised during PH	Rs 44.45 Lakhs

xvii. The Project Proponent submitted that there was excess production against the EC capacity of 50,000 TPA during the period 2015-16 by 2000 TPA, 2016-17 by 1000 TPA and 2018-19 by 21 TPA. Total excess production in three years is about 3021 T. The maximum excess production of 6 T/Day (2000 TPA) is considered for damage assessment. The assessment carried out on all the environmental aspects showed no impact/negligible impact. PP considered the protocol followed by TS SEIAA to arrive at cost of damage assessment. PP submitted that as the baseline data collected and analyzed was three years old (Dec-2016 to Feb-2017), PP revalidated the baseline data covering summer season (March-May, 2021). PP submitted that 9 attributes are falling in low category and the damage cost is worked out for low level ecological damage. PP also submitted that the equivalent area of damage for excess production of 3021 Tonnes worked out based on mine planning. The area is estimated to be about 100m<sup>2</sup> (0.01 ha). However, for estimation of damage cost, an area of 0.5 ha considered and the damage cost for the same is estimated to be about Rs 60,000. EMP comprising remediation plan and natural and community resource augmentation worked out as Rs 1.03 Lakhs with time schedule of two years. Economic benefits derived due to violation is Rs 1.9 Lakhs. PP submitted that Bank guarantee will be submitted after EAC appraisal on deciding the amount. PP vide email dated 29.03.2022 submitted

that the Bank Guarantee has been revised to an amount of Rs.5.54 lakhs and the penalty amount revised to Rs.6.33 lakhs as per SOP dated 07.07.2021.

Penalty calculation (As per SOP issued vide OM No F. No. 22-21 /2020-IA.III dated 7<sup>th</sup>, July, 2021)

a. Penalty 1 % of project cost of Rs 6.0 Cr = Rs 6.0 Lakhs							
b. Penalty @ 0.25 % of Turnover on Excess production as per SOP of MOEFCC							
Year	Excess Limestone production (Tonnes)	Corresponding Clinker Production (Tonnes)	Corresponding Cement Production (Tonnes)	Number of Bags @50 kg/bag	Price Per Bag (Rs)	Turnover (Rs) on Excess Limestone through Cement Sale	Penalty in Rs @ 0.25 % of Turnover on Excess production as per SOP of MOEFCC
2015-16	2000	1333.333	1400	28000	300	8400000	21000
2016-17	1000	666.6667	700	14000	330	4620000	11500
2018-19	21	14	14.7	294	340	99960	250
Penalty							32750
Project Cost of Excess Production							0
Total							33000
Total Penalty = a) + b) = Rs 6.00 Lakhs (1% of capital cost) + Rs 0.33 Lakhs = Rs 6.33 Lakhs							

**Remediation Plan**

S. No	Particulars	Description
1	Identified area	Development of Plantation in SultanpurTanda Village
2	Number of Saplings	1000
3	Species considered	Gulmohar, Neem, Sisoo, Tangeda, Turayietc
4	Cost per sapling	Rs 150 /- (including soil works)
5	Time of Completion	2 years
6	Total cost of Saplings	Rs 1,50,000/-

**Natural Resource Augmentation Plan**

S. No	Particulars	Items	Amount in Rs
NCL Junior college			
1	Piping length	12 m	20,400 /-
2	Cost /m, Rs /m	1700 x 12	
3	No harvesting pits	10 no.s	1,00,000 /-

4	Cost per pit @ Rs 10000/pit	10 x Rs 10,000 / -	
Sultanpur Tanda Village			
5	No Harvesting pits	8 no.s	
6	Cost per pit @ Rs 10000/pit	8 x Rs 10,000 / -	80,000 /-
	Total		2,04,000

**Community Resource Augmentation Plan**

S. No	Particulars	Description
1	Location	Sultanpurtanda (relocated village) and Pedaveedu villages
2	No. of Solar lights	20 no.s each village
3	Cost @ Rs 5000/- per light	40 x 5000 /-
4	Time period	1 year
5	Total Cost	Rs 2,00,000/-

**Summary of amount for Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan**

S. No	Description	Total amount (Rs Lakhs)
1	Remediation Plan	1.50
2	Natural Resource Augmentation Plan	2.04
3	Community Resource Augmentation Plan	2.00
4	Total	5.54

xviii. The Project Proponent submitted the EC compliance report certified by Integrated Regional Office, Hyderabad vide Lr No ENV/IRO-HYD/CCR-05/A/2021/33 dated 03.07.2021 which is Partially Complied. PP vide Lr Ref. NCL/EC-2009/2021-22 dated 20.07.2021 submitted the action plan to the Integrated Regional Office, Hyderabad in respect of the recommendations given in the certified compliance report dated 03.07.2021. PP submitted the final closure report issued by the Integrated Regional Office, Hyderabad vide E-F.No: ENV/IRO-HYD/CCR-05/A/2021 2158 dated 19.04.2022 against partial compliances/ recommendations. The action taken report submitted by PP was verified at during the revisit on 13.04.2022 wherein the Integrated Regional Office mentioned that the conditions are compiled and being complied. PP also submitted that the Consent for Operation issued by the Telangana State Pollution Control Board vide no TSPCB/CFO/NLG/HO/2017-3266 dated 03.03.2017 for the period up to 31.03.2022 for production of 0.0497 Million TPA.

xix. The Project Proponent submitted the past production details duly authenticated by the Department of Mines and Geology, Government of

Telangana vide its Lr.No. 2876/M2/1998, dated 22.01.2021 for the period from 1998-99 to 2019-20. PP reported that there is excess of the production against the EC capacity of 50,000 TPA (EC dated 15.12.2009) during the period 2015-16 (52,000 TPA), 2016-17 (51,000 TPA) and 2018-19 (50,021 TPA). There is also excess of the production against the CTO capacity of 49,700 TPA (CTO dated 05.01.2015 & 03.03.2017) during the period 2015-16 (52,000 TPA), 2016-17 (51,000 TPA), 2017-18 (50,000 TPA) and 2018-19 (50,021 TPA).

xx. Resettlement & Rehabilitation (R&R):

R & R Plan	NA
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xxi. Court case details:

Court Case	PP submitted that State Government/SPCB has initiated action under the provisions of Section 19 of the Environment (Protection) Act, 1986. A case has been filed in the court of Judicial Magistrate of First Class at Huzur Nagar with CC number 202 of 2021. Credible Action case is pending under EPA, 1986.
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xxii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP submitted the affidavit bearing no H 582237 dated 12.06.2017 that M/s NCL Industries Limited shall comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 <sup>nd</sup> August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
PP submitted an Undertaking dated 28.09.2021	The information and data submitted is factually correct and NCL Industries Limited (NCL) owns the contents of the report.
Consultant submitted an Undertaking dated 04.10.2021	M/s B.S Envi-Tech Pvt Ltd has compiled with all the prescribed Terms of Reference (ToR) issued by Ministry of Environment, Forest and Climate Change in preparation of Revised Final EIA report for the above-mentioned project.
Plagiarism checked on 30.09.2021	The Head of the Accredited Consultant Organization/ Authorized person certified that this Revised Final EIA Report has been evaluated by using online in-house software viz. Plagiarism Checker X – Report

	(Purchased). The report produced has been analyzed by the system and based on it, I certify that the EIA Report produced in accordance with good scientific practice.
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xxiii. Details of the EMP:

S. No.	Particulars	Capital Cost (Lakhs)	Recurring Cost Per Annum (Lakhs)	Total Recurring Cost up to lease period (Lakhs)
1	Air Pollution Control Dust suppression (Through Tanker)	25	0.20	5
2	Environmental Monitoring	0	7	155
3	Green Belt along 7.5 m barrier zone & Safety Bund	18.06	0.50 (avg)	11.52
4	Rainwater Harvesting Bunds for Rainwater Collection	0	0.25	3.75
5	Drain along southern boundary with check dam at discharge end	3	0.3	7.5
6	Watch Guards - 2 no.s to monitor transportation route	1.0	4.80	120
	<b>TOTAL</b>	<b>47.06</b>	<b>13.05</b>	<b>302.77</b>

xxiv. Details of project cost and employment:

Particulars	Budget
Capital Cost for Environment Protection	Rs. 0.4706 Crore
Budget for addressing the Public Hearing issues	Rs. 0.4445 Crore
Total Cost for EMP	Rs. 0.9051 Crore
Recurring Cost for EMP	Rs. 0.1305 Crore
Project Cost	Rs. 6.0 Crore
Employment	Existing - 10 persons, Additional - 18 persons

**Observation and Recommendation of the Committee:**

The EAC noted that the Project Proponent obtained the Terms of Reference (ToR) on 24.08.2016 and the Terms of Reference (ToR) was valid for a period of three years i.e. upto 23.08.2019 for submission of the EIA/EMP reports and accordingly the Project Proponent submitted the application for Environmental Clearance (EC) on 06.02.2019 well within the time period. The EAC also noted that the public hearing was conducted on 29.06.2018 during the validity period of the ToR and at the time of submission of EC proposal, public hearing is not older than 3 years. Further, the EAC noted that the Project Proponent conducted the baseline



study during Winter Season (December, 2016 to February, 2017) and at the time of submission of proposal for environmental clearance, baseline data is not older than 3 years. Since the three years passed, the Project Proponent revalidated the baseline data during summer season (March-May, 2021).

Thereafter, the EAC deliberated on the additional details sought by the EAC in its meeting held on 30<sup>th</sup> May, 2022. The EAC on viewing the KML file noted that the mine lease area is located close to the vicinity of the river Krishna. Project Proponent informed the EAC that the mine pit in the western side part of the lease area is accumulated by rain water. Earlier Sultanpur Thanda village was located at a distance of 200 m, S and it was relocated beyond 2 km by the Govt. of Andhra Pradesh. PP also informed that the HFL zone is falling in the mine lease area of about 7.14 ha due to backwaters of river Krishna. The area of 7.14 ha is occupied with the mineral reserves and in this regard the Project Proponent approached the DGMS and the DGMS suggested to construct a bund all along the mine lease boundary to avoid mine inundation and the bund has been constructed and DGMS gave permission to mine in HFL zone. PP informed the EAC that HFL is 53.34 m and height of the bund is 58.75 m. The EAC opined that the height of the bund shall be uniform all along the mine lease boundary and the Project Proponent shall ensure that the conditions stipulated by the DGMS shall be strictly followed.

Project Proponent informed the EAC that the scientific study has been carried out by Jawaharlal Nehru Technological University Kakinada (JNTUK), Kakinada on Hydraulic, Hydrological, Geotechnical and Environmental Study of Sulthanpur Thanda Limestone mine. PP informed that Surface runoff discharge is 3.0 m<sup>3</sup>/sec by considering the rainfall. PP informed that the average rainfall is 740 mm. Drains start at a level of + 56 m and end near the pond at + 50 m. Design discharge to be carried out is much less than the capacities of the drains AB and CD. Hence the cross-section considered to be provided is sufficient. The EAC asked the Project Proponent whether the construction of bund has been completed or not? The Project Proponent informed the EAC that the construction of bund has been completed and only the finishing works are to be done and will be completed by 15<sup>th</sup> October, 2022.

Based on the above discussions held, the EAC during 28 to 29<sup>th</sup> September, 2022 **recommended** the proposal for grant of Environmental Clearance (EC) under Ministry's SOP dated 07.07.2021 for Sultanpur Thanda Limestone Mine of M/s NCL Industries Limited for expansion of production of limestone from 0.05 to 1.0 MTPA with Total Excavation of 1.0 MTPA [Limestone – 1.0 MTPA (ROM) and Waste/ Reject/ IB/OB/Top Soil – Nil] in the mine lease area of 42.83 Ha in Survey No 540 (P), located at Pedaveedu Village, Matampalli Mandal, Nalgonda District, Telangana subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects:

- i. The Environmental Clearance (EC) will be valid upto 28.10.2046 only.

- ii. EAC recommended for an amount of Rs. 5.54/- Lakhs towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years. The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provisions are mentioned below:

**Remediation Plan**

S. No	Particulars	Description
1	Identified area	Development of Plantation in SultanpurTanda Village
2	Number of Saplings	1000
3	Species considered	Gulmohar, Neem, Sisoo, Tangeda, Turayietc
4	Cost per sapling	Rs 150 /- (including soil works)
5	Time of Completion	2 years
6	Total cost of Saplings	Rs 1,50,000/-

**Natural Resource Augmentation Plan**

S. No	Particulars	Items	Amount in Rs
NCL Junior college			
1	Piping length	12 m	20,400 /-
2	Cost /m, Rs /m	1700 x 12	
3	No harvesting pits	10 no.s	1,00,000 /-
4	Cost per pit @ Rs 10000/pit	10 x Rs 10,000 / -	
SultanpurTanda Village			
5	No Harvesting pits	8 no.s	80,000 /-
6	Cost per pit @ Rs 10000/pit	8 x Rs 10,000 / -	
	Total		2,04,000

**Community Resource Augmentation Plan**

S. No	Particulars	Description
1	Location	Sultanpurtanda (relocated village) and Pedaveedu villages
2	No. of Solar lights	20 no.s each village
3	Cost @ Rs 5000/- per light	40 x 5000 /-
4	Time period	1 year
5	Total Cost	Rs 2,00,000/-

**Summary of amount for Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan**

S. No	Description	Total amount (Rs Lakhs)
1	Remediation Plan	1.50

2	Natural Resource Augmentation Plan	2.04
3	Community Resource Augmentation Plan	2.00
4	Total	5.54

- iii. Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is Rs. 5.54/- Lakhs. Therefore, Project Proponent shall be required to submit a bank guarantee of an amount of Rs. 5.54/- Lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the SPCB prior to the grant of EC.
- iv. Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.
- v. The Project Proponent shall be required to remit the amount of Rs 6.33 Lakhs as per penalty provisions of SOP dated 07.07.2021 into the fund maintained by the concerned State Pollution Control Board. EC shall be issued on submission of proof regarding the same.
- vi. The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- vii. State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- viii. 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/ mining personnel.
- ix. Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

- x. The Project Proponent needs to submit the action taken report on plantation, damage recovery, Natural Resource Augmentation Plan (NRAP), Community Resource Augmentation Plan (CRAP) annually to the Ministry's Integrated Regional Office which should be monitorable and verifiable. The period of addressing these issues is restricted to a period of 3 years.
- xi. The expansion in Environmental Clearance (EC) will be functional only after the completion of the entire work of construction of bund and the same shall be intimated to the Ministry's Integrated Regional Office along with proof of photographs and video.
- xii. The Project Proponent needs to strictly comply with the conditions stipulated by the Directorate-General of Mines Safety to work in HFL Zone area of Pulichintala dam H.F.L Line in Sultanpur Thanda lease area on the eastern side in Sultanpur Thanda-Gundlapalli Limestone mine.
- xiii. The Project Proponent shall use the converted mine pit water for recreational activities such as pisciculture. Fencing shall be done to prevent any inadvertent entry.
- xiv. The Project Proponent needs to monitor the quality of water once in every month before discharging into the natural water bodies and the report shall be submitted to the Ministry's Integrated Regional Office.
- xv. Effective dust suppression system shall be adopted at the transportation site and in the other parts of the mining lease to arrest the fugitive dust emission.
- xvi. The Project proponent shall take necessary other clearances/permissions under various Acts and Rules if any, from the respective authorities / department.
- xvii. The mining lease holder shall, after ceasing mining operations, under take regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to condition which is fit for growth of fodder, flora and fauna etc.
- xviii. The budget of Rs 44.45 Lakhs to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes.

- xix. The Project Proponent shall convert the transport road (Panchayat Road) of 2.0 km from the mines to the plant to concrete road within 2 years. The Project Proponent needs to install the permanent water sprinklers along the road of length 2.0 km. Further, 5 nos. of fog canon/mist sprayer of atleast 40 mtrs throw shall be installed at various location in the mine area.
- xx. The Project Proponent needs to increase the capacity of the trucks of 40-50 Ton capacities to reduce the no. of trips.
- xxi. The Project Proponent shall undertake the three-tier plantation along the bund and green belt, safety zone within one year. PP shall ensure that the survival rate should not be less than 95%.
- xxii. The Project Proponent needs to establish the RO plant for drinking purpose in Sultanpur Thanda-Gundlapalli Villages.
- xxiii. The Project Proponent shall ensure the safety of the nearby Reserve Forest located about 170m from the mine lease area as committed by the Project Proponent.
- xxiv. The Project Proponent shall explore the possibility of using atleast 20 % of electric vehicles instead of diesel operation.
- xxv. 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.
- xxvi. 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.

**2.2 Amendment in EC dated 27.04.2022 for Redi Iron Ore mine of M/s Minerals and Metals with proposed production capacity of 0.2 MTPA of Iron Ore (ROM), 0.025 MTPA Waste/Overburden & 0.0003 MTPA of Topsoil in the mine lease area of 27.4520 ha, located at Villages Redi, Sakhalbhat, Mhartale and Bambadojiwadi, Taluk Vengurla, District Sindhudurg, Maharashtra -**

**[Proposal No: IA/MH/MIN/148253/2020 dated 07.07.2022, F.No: J-11015/27/2020-IA-II(M)] - Amendment in EC**

The instant proposal is for amendment in EC dated 27.04.2022 w.r.t. amendment in Waste/Overburden and Topsoil and Specific Condition 17 A (b) for Redi Iron Ore mine of M/s Minerals and Metals with proposed production capacity of 0.2 MTPA of Iron Ore (ROM), 0.025 MTPA Waste/Overburden & 0.0003 MTPA of Topsoil in the mine lease area of 27.4520 ha, located at Villages Redi, Sakhalbhat, Mhartale and Bambadojiwadi, Taluk Vengurla, District Sindhudurg, Maharashtra.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude 15°44'25.64"N to 15°44'53.28"N and Longitude 73°39' 21.19"E to 73°40'54.18"E. The mine lease area falls under the Survey of India Toposheet No: 48 E/10 and falls in Seismic Zone-III.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and attracts the general conditions as the interstate boundary of Maharashtra-Goa is located at a distance of 1.34 km from the mine lease area and falls under Category "A" and appraised at the Central level.
- iii. The project was granted Environmental Clearance (EC) by the Ministry vide letter dated 27.04.2022 based on recommendation of sectoral EAC meeting held during 28-30 March, 2022.
- iv. The Project Proponent requested for amendment in EC dated 27.04.2022 w.r.t. amendment in Waste/Overburden and Topsoil and Specific Condition 17 A (b) *Since, Block 3 is adjoining the already operating mines of Gogte Minerals, a peripheral plantation in the common boundary area should be carried out to prevent impact of mining on each other as mentioned below:*

S. No	Reference of EC dated 27.04.2022	Description as per EC dated 27.04.2022	Amendment sought by the Project Proponent
1	Subject, Line 3, Pg. No: 2 Clause 1, Line 3, Pg. No: 2 Point No. 1, Clause 1, Line 3, Pg. No: 2 Point No. 3, Clause 6 & 7, Line 1, Pg. No: 3 Point No. 3, Clause 6 &	"....proposed production capacity of 0.2 MTPA of Iron ore (ROM), 0.025 MTPA <b>Waste/Overburden and 0.0003 MTPA of Topsoil</b> in the mine lease area of 27.4520 ha.....".	"....proposed production capacity of 0.2 MTPA of Iron ore (ROM) with a <b>stripping ratio of 1:2.06</b> .It is proposed to <b>generate total 0.05 Million Tonnes of Top soil till the end of the lease period ..."</b>

	7, Line 1, Pg. No: 3  Point No. 16, Para 2, Line 11, Pg. No: 7		
2	Specific condition no. 17 A (b), Pg.No: 7 of 20	Since, Block 3 is adjoining the already operating mines of Gogte Minerals, a peripheral plantation in the common boundary area should be carried out <b>to prevent impact of mining on each other</b>	Since, Block 3 is adjoining the already operating mine of Gogte Minerals, a peripheral plantation in the common boundary area should be carried out <b>immediately after the common boundary work is over</b>

- v. The proposal was earlier considered in the 2<sup>nd</sup>EAC (Non-Coal Mining) Meeting held during 16<sup>th</sup> - 18<sup>th</sup>August, 2022 wherein the EAC deferred the proposal for want of the requisite information. The Project Proponent vide letter dated 05.09.2022 submitted the information on 06.09.2022 in PARIVESH portal. Accordingly, the proposal was reconsidered in the 4<sup>th</sup> EAC (Non-Coal Mining) meeting held during 28-29 September, 2022.

Based on observation of EAC and the compliance of observation of EAC made by the Project Proponent are detailed below:

S. No	Observation of EAC	Reply by Project Proponent
1	The Project Proponent needs to submit the justification that why the mining operation should commence by approaching the common boundary area initially.	The Project Proponent submitted that the approved Mining Plan mandate to work near common boundary during the initial years as the main ore body situated along the common Mine Boundary wherein the blocked iron ore reserves are of the order of 1.2 Million Tonnes (0.8 Million Tonnes of M/s Minerals and Metals and 0.4 Million Tonnes of M/s Gogte Minerals). Since the common mine boundary is away from the dwellings, it is safe to start initial workings along the common boundary. As M/s Gogte Minerals already worked up to the common boundary, a free face is available and this enables easy and safe access for mine workings by extending the existing pit.  PP also submitted that in case working near the common boundary is not permitted, the two lessees compel to work independently leaving 7.5m barrier in respective mines. In

		<p>such case, a high wall will be created at the common boundary, which is unsafe and may lead to slope failure, endangering safety of the workmen and machinery of the respective mines.</p> <p>Further, PP submitted that considering the above aspects, Directorate General of Mines and Safety (DGMS) granted the permission under Regulation 111 (3) of MMR 1961 to work within the 7.5m up to the Mining Lease Boundary. Both the Lessees have already executed the Memorandum of Understanding (MOU) to work Common Boundary. The conditions imposed in the common boundary permission will be strictly implemented by both the Lessees. This will benefit the State and Central Government through Royalty, NMET, DMF, etc., to a tune of about Rs. 106.8 Crores. In view of the above, PP submitted that the commencing the mining operations by approaching the common boundary area initially, is much essential.</p>
2	<p>The Project Proponent needs to submit the details on mining methodology initially in the common boundary and later further widened all along the boundary. Project Proponent should explore the possibility of mining by avoiding drilling and blasting activity in the common boundary area.</p>	<p>The Project Proponent reported that there is no drilling and blasting proposed in the mining operations. The conventional drilling and blasting is replaced by eco-friendly Ripping and dozing.</p> <p>PP submitted that the National Institute of Rock Mechanics (NIRM), an autonomous Research Institute under Ministry of Mines, Government of India conducted the Scientific Study for assessment of safe pit slope angle and safe waste dump for this mine. The recommendations made by NIRM will be implemented and adopt the methodology as suggested.</p> <p>PP reported that in order to maintain the safety and to prevent the impact of mining on each other, the Mining at the common boundary (7.5 meters either side) will be worked by only one lessee at a time in a sequential manner. PP submitted the plan showing common boundary working initially along with the sections depicting the coordinated sequential workings at the common boundary. Mining will be undertaken systematically by maintaining a bench height of 6 m and width will be kept more than the height. Backfilling of the exhausted area will be undertaken immediately on completion of the common</p>



		<p>boundary workings. The slope of the bench will be maintained as proposed in the Approved Mining Plan. Gradient of the haulage road will be maintained as 1:16.</p>
<p>3</p>	<p>The Project Proponent needs to submit the environmental implications for creating the common boundary and the stability of mine benches and the restoration plan for the common boundary.</p>	<p>PP reported that the environmental implications for working at the common boundary was already studied and mitigation measures have been provided in the EIA/EMP. There will not be additional impact on air quality and other environmental components including water and noise. PP reported that the post project concentration is observed to be maximum in Kanyalwadi village i.e., 75.4 µg/m<sup>3</sup> as per the predictions made using ISCST3 modelling and is within the permissible limits. PP appointed National Institute of Technology (NIT), Surathkal for Assessment of dust emissions from mining activities including common boundary workings. After the commencement of mining operations at common boundary, NIT Surathkal will undertake the studies as per the guidelines of CPCB and DGMS.</p> <p>PP reported that there will not be any impact on surface and ground water quality. During monsoon season all mining activities will be stopped, this reduces sediments run-off from the dump plots &amp; mining roads as they remain undisturbed due to non-activity. The protective measures in the form of retention walls/garland trenches/settling ponds will be provided at the toe of the dumps within the lease area and will be stabilized with afforestation . The rain water harvested will be utilized for gainful purposes such as supply for irrigation to villagers, dust suppression and ground water recharge purpose.</p> <p>The total area proposed for working within the 7.5m strip along the common boundary is 0.95 Ha, which is very less. (Admeasuring 0.51 Ha at the side of the Mining Lease of M/s Minerals and Metals and 0.44 Ha. from the M/s Gogte Minerals along the 7.5m strip). Proposed total handling within 7.5 meters on either side of the common boundary for M/s Minerals and Metals is 63.36 (Unit: '000 Tonnes) and M/s Gogte Minerals is 26.95(Unit: '000 Tonnes). Slope design and maintaining the slopes will be strictly adhering to the recommendations of NIRM. PP also submitted that regular slope stability monitoring will be conducted at the common boundary.</p>

		<p>PP reported that tree enumeration within the 7.5m working limits (0.95 Ha) along either side of the common boundary is conducted Team of Botany Department of Shri PanchamKhemrajMahavidyalaya College, Sawantwadi under Dr.UttamDethe, Professor and his team. The Team has recommended the action plan for transplantation of some of the trees and regeneration of trees with compensatory afforestation.</p>										
4	<p>The Project Proponent needs to submit the action plan for transplanting/translocation the existing plantation in the 7.5m width on the mine lease area of M/s Minerals &amp; Metal Ltd. Project Proponent should prepare the plan in such a way that the compensatory afforestation shall be taken up before the safety zone is disturbed with same species having height of 10ft with not less than 95% survival rate in the identified area. An undertaking in this regard needs to be submitted by the Project Proponent.</p>	<p>The Project Proponent reported that the number of trees counted is 28 including fruit bearing and local species, 24 acacia trees and 11 numbers of bushy shrubs within 7.5m strip along the common boundary area of M/s Minerals and Metals. The major tree growth observed is of exotic species like acacia and it is recommended to encourage the plantation of local species during the Progressive Mine Rehabilitation. Considering the health, size and root system of the trees, it is recommended to opt for transplantation of 17 numbers of trees Cashew, <i>Ficusglomerata</i>, <i>Garcinia indica</i>, <i>Gmelinaarborea</i>, <i>Mammealingifolia</i>, <i>Mangiferaindica</i>, <i>Mimusopselengi</i> with a height of 10-15mtr with a girth of approximate in the range of 10cm to 70cm. The local species like cashew, kokum, mango, jackfruit and forestry species like Terminal, Savar, Satan etc. are recommended during afforestation of mined out lands. After care could take anywhere from 3 -12 months to ensure that the transplanted tree have successfully adapted to their new habitat. The benchmark tree survival rate at the end of one year of tree transplantation shall be 95% survival.</p> <table border="1" data-bbox="592 1503 1422 1973"> <thead> <tr> <th data-bbox="592 1503 663 1771">S. No.</th> <th data-bbox="663 1503 815 1771">No of Trees to be felled along the common boundary</th> <th data-bbox="815 1503 1007 1771">No. of trees to be transplanted</th> <th data-bbox="1007 1503 1230 1771">No of trees to be planted as Compensatory afforestation</th> <th data-bbox="1230 1503 1422 1771">No of trees to be planted as Green Belt as part of Reclamation Plan</th> </tr> </thead> <tbody> <tr> <td data-bbox="592 1771 663 1973">1</td> <td data-bbox="663 1771 815 1973">42 (This includes 24 Acacia trees)</td> <td data-bbox="815 1771 1007 1973">17 trees 11 shrubs</td> <td data-bbox="1007 1771 1230 1973">420</td> <td data-bbox="1230 1771 1422 1973">2500plants</td> </tr> </tbody> </table>	S. No.	No of Trees to be felled along the common boundary	No. of trees to be transplanted	No of trees to be planted as Compensatory afforestation	No of trees to be planted as Green Belt as part of Reclamation Plan	1	42 (This includes 24 Acacia trees)	17 trees 11 shrubs	420	2500plants
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1	42 (This includes 24 Acacia trees)	17 trees 11 shrubs	420	2500plants								

		PP earmarked a budget of Rs 3.75 Lakhs towards tree transplantation, Rs 2.5 Lakhs towards compensatory afforestation and Rs 5.5 Lakhs towards reclamation plan. The Project Proponent undertakes to implement the green belt development and restoration plan along with transplantation and compensatory afforestation as recommend by the Team.
5	The Project Proponent needs to submit the Mining Plan of M/s Minerals & Metal Ltd and M/s Gogte Minerals Ltd mentioning the details of mining in the common boundary area.	<p>The Project Proponent submitted the relevant pages of the Mining Plan of M/s Minerals and Metals and M/s Gogte Minerals approved by IBM mentioning the details of mining in the common boundary.</p> <p>Mining Plan of M/s Minerals and Metals:  <i>“Redi Iron Ore Mine of Minerals &amp; Metals shares common boundary along its Southern side of Block 3 with the Iron Ore Mining Lease of M/s Gogte Minerals. Lessee has an understanding with M/s Gogte Minerals for obtaining permission from DGMS to extend workings up to the respective Mine boundaries.”</i></p> <p>Mining Plan of M/s Gogte Minerals:  <i>“Redi Iron Ore Mine of M/s Gogte Minerals shares common boundary along with Iron Ore Mining Lease of M/s Minerals and Metals. Lessee has an understanding with M/s Gogte Minerals for obtaining permission from DGMS to extend workings up to the respective mining lease boundaries.”</i></p>
6	The Project Proponent needs to submit the Memorandum of Understanding (MoU) to work in common boundary area between M/s Minerals & Metal Ltd and M/s Gogte Minerals Ltd as presented before the EAC during the meeting.	The Project Proponent submitted the Memorandum of Understanding (MoU) made on 26.08.2020 between M/s Minerals and Metals and M/s Gogte Minerals to work in common mine boundary.
7	The Project Proponent needs to	The Project Proponent submitted the copy of the Environmental Clearance (EC) of M/s Gogte Minerals Ltd

submit the copy of the Environmental Clearance granted to M/s Gogte Minerals Ltd.	granted by the Ministry vide letter dated 22.04.2010.
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- vi. The Project Proponent submitted the Approval from the Directorate General of Mines Safety vide Lr No: 330538|SCZ|Goa Region|Perm|2022|237429 dated 10.06.2022 to work within 7.5 meters and upto the common Boundary between Redi Iron Ore Mine of M/s Gogte Minerals Ltd and Redi Iron Ore of M/s Minerals & Metal Ltd. This permission shall be valid for five years from the date of issue of this letter or whenever the extraction in the area under consideration is completed, whichever is earlier.

### **3. Observation and Recommendation of the Committee:**

The EAC deliberated on the additional sought details sought by the EAC in its 2<sup>nd</sup> EAC (Non-Coal Mining) Meeting held during 16<sup>th</sup> - 18<sup>th</sup> August, 2022. The EAC noted that the Project Proponent informed that the main ore body situated along the common mine boundary wherein the blocked iron ore reserves are of the order of 1.2 Million Tonnes (0.8 Million Tonnes of M/s Minerals and Metals and 0.4 Million Tonnes of M/s Gogte Minerals). PP also informed that in case working near the common boundary is not executed, the two lessees are forced to work independently leaving 7.5m barrier in respective mines and in such a case, narrow high barrier will be created at the common boundary, which is unsafe and may lead to slope failure, endangering safety of the workmen and machinery of the respective mines. Further, PP informed that since the common mine boundary is away from the dwellings, it is safe to start initial workings along the common boundary. As, M/s Gogte Minerals already worked up to the common boundary, a free face is available and this enables easy and safe access for mine workings by extending the existing pit. The EAC advised the Project Proponent to ensure the safety during mining in common mine boundary.

The Project Proponent informed the EAC that there will not be additional impact on air quality and other environmental components including water and noise. Project Proponent also informed that the post project concentration is observed to be maximum in Kanyalwadi village i.e., 75.4  $\mu\text{g}/\text{m}^3$  as per the predictions made using ISCST3 modeling and is within the permissible limits. Further, Project Proponent informed that there will not be any impact on surface and ground water quality. The EAC opined that as committed by the Project Proponent, after the commencement of mining operations at common boundary, assessment of dust emissions from mining activities including common boundary workings shall be undertaken by National Institute of Technology (NIT), Surathkal as per the guidelines of CPCB and DGMS.

The EAC advised the Project Proponent to amend the Standard Operating Procedure (SOP) for working in common boundary w.r.t. joint survey and supervision

of the mining operation in common mine boundary to avoid any dispute between two project proponent. Based on the above discussions held, the EAC during 28 to 29<sup>th</sup> September, 2022 **recommended** the proposal for amendment in EC dated 27.04.2022 as sought in Para 2 (iv) for Redi Iron Ore mine of M/s Minerals and Metals with proposed production capacity of 0.2 MTPA of Iron Ore (ROM), 0.025 MTPA Waste/Overburden & 0.0003 MTPA of Topsoil in the mine lease area of 27.4520 ha, located at Villages Redi, Sakhalbhat, Mhartale and Bambadojiwadi, Taluk Vengurla, District Sindhudurg, Maharashtra along with the following specific additional conditions: -

- i. The Project Proponent shall ensure that only one proponent will work at the common boundary at a time for excavation of 6m depth/bench and then other proponent will work at the common boundary to achieve the same bottom RL/bench so as to maintain same level at common mine boundary by both the proponents.
- ii. Backfilling of the exhausted area needs to be undertaken immediately on completion of the common mine boundary workings.
- iii. The Project Proponent needs to ensure the safety during mining in common mine boundary.
- iv. After the commencement of mining operations at common boundary, the Project Proponent needs to assess the dust emissions from mining activities including common boundary workings by National Institute of Technology (NIT), Surathkal as per the guidelines of CPCB and DGMS.
- v. The Project Proponent shall strictly adhere to the recommendations of the scientific study on slope stability assessment carried out by National Institute of Rock Mechanics (NIRM).
- vi. The Project Proponent needs to amend the Standard Operating Procedure (SOP) for working in common boundary w.r.t. joint survey and supervision of the mining operation in common mine boundary to avoid any dispute between two project proponents. A copy of the amendment in SOP (duly signed by both the companies) shall be submitted to the Ministry's Integrated Regional Office.
- vii. The Project Proponent needs to desilt the garland drains and retention wall periodically.
- viii. The Project Proponent needs to utilize the rain water harvested for gainful purposes such as supply of water for irrigation to villagers, dust suppression

and ground water recharge purpose and shall maintain the data and record for the same.

- ix. The Project Proponent needs to undertake and implement the green belt development and restoration plan along with transplantation and compensatory afforestation as recommend by the Department of Botany, Shri PanchamKhemrajMahavidyalaya College, Sawantwadi.
- x. The amendment in EC to work within 7.5 meters and upto the common Boundary between Redi Iron Ore Mine of M/s Gogte Minerals Ltd and Redi Iron Ore of M/s Minerals & Metal Ltd shall be valid for five years from the date of issue of this letter or whenever the extraction in the area under consideration is completed, whichever is earlier.

**2.3 Lumshnong Limestone Mine of M/s Star Cement Limited for enhancement in production capacity of Limestone from 9 Lakh TPA (ROM) to 25 Lakh TPA (ROM) with 5 Lacs TPA of waste including soil (Total Excavation: 30.0 Lakhs TPA) in the mine lease area of 70ha, located at village Lumshnong, Tehsil Khliehriat, District East Jaintia Hills, Meghalaya - [File No. J-11015/34/2017-IA.II(M); Proposal No. IA/ML/MIN/283180/2017, Consultant: Perfact Enviro Solutions Pvt Ltd] –Reconsideration of Environmental Clearance (EC)**

The instant proposal is for reconsideration of Environmental Clearance (EC) for Lumshnong Limestone mine of M/s Star Cement Limited for enhancement in production capacity of Limestone from 9 Lakh TPA (ROM) to 25 Lakh TPA (ROM) with 5 Lacs TPA of waste including soil (Total Excavation: 30.0 Lakhs TPA) in the mine lease area of 70 ha, located at village Lumshnong, Tehsil Khliehriat, District East Jaintia Hills, Meghalaya.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude: 25°09'56.134"N to 25°10'34.288"N and Longitude: 92°21'47.340"E to 92°22'26.153"E. The mine lease area falls under the Survey of India Toposheet No: 83C/8 and falls in Seismic Zone- V.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals of the schedule of the EIA Notification, 2006 and attracts the general conditions as the mine lease area is located 4.8 km, S from the Narpuh Wildlife Sanctuary and ESZ boundary is located 2.7 km, SE from the mine lease boundary and falls under Category "A" and appraised at the Central level.
- iii. The project was granted Environmental Clearance by the Ministry vide EC letter dated 01.04.2016 for M/s Cement Manufacturing Co. Ltd. for Limestone

Mine with proposed production capacity of 9,00,000 TPA (ROM) of Limestone in the mine lease area of 70 ha. Then, transfer of EC from M/s Cement Manufacturing Co. Ltd. to M/s Star Cement Limited was obtained by the Project Proponent vide EC letter dated 17.07.2017.

- iv. The Project Proponent obtained Terms of Reference (ToR) vide letter dated 18.07.2017 for enhancement of production from 9,00,000 TPA (ROM) to 25 Lakhs TPA (ROM) in the mine lease area of 70.0 ha. The validity of the Terms of Reference (ToR) has been calculated as per the actual details as given under and approved by the Competent Authority;
- Date of grant of TOR –18<sup>th</sup>July,2017;
  - Validity of TOR for 4 years till 17<sup>th</sup>July,2021(As per Ministry's notification dated17<sup>th</sup>Feb,2022;
  - TOR time period availed by PP before corona notification: 2 years 8 months 13days(18 July, 2017 to 31 March,2020)
  - Remaining TOR time period available for PP = (4 years - 2 years 8 months 13days)= 1 year 3 months 17 days;
  - Time period not to be calculated (corona notification) – 1<sup>st</sup>April, 2020 to 31<sup>st</sup>March 2021;
  - TOR validity period = 2 years 8 months 13 days + 1 year 3 months 17 days(count starts from 1<sup>st</sup>April, 2021) =17<sup>th</sup>July, 2022.
- v. In view of the above, the instant project was considered in the EAC-NCM meeting scheduled during 27-29, July 2022 as EIA/EMP report submitted on Parivesh Portal on 24.05.2022.After the detailed presentation given by the project proponent and the consultant, the EAC observed non-compliance of the Environmental Clearance vide letter no. J-11015/04/2011-IA.II(M) dated 01.04.2016 obtained for enhancement in production capacity of Limestone for 9 Lakh TPA (ROM). A detailed Hydro geological report as stipulated has not been carried out. Water spraying by the water tankers along the approach road and other areas is insufficient. During the meeting, the project proponent submitted the closure of report against ATR of monitoring report on compliance of EC conditions vide letter dated 21.04.2022 by which the Committee was not fully satisfied, as compliance of many conditions still needs to be verified by IRO. Therefore, the Committee deferred the proposal due to want of the requisite information. The Project Proponent submitted the information on 08.09.2022 and accordingly the proposal was reconsidered in the 4<sup>th</sup> EAC (Non-Coal Mining) meeting held during 28-29 September, 2022.

Based on observation of EAC and the compliance of observation of EAC made by the Project Proponent are detailed below:

S . N	Observation of EAC	Reply by Project Proponent

0												
1	<p>The project proponent needs to submit the detailed justification on the delay for carrying out the Hydro-geological study and further progress made therein.</p>	<p>The Project Proponent submitted that as per the EC specific condition viii, it was clearly mentioned that <i>“In case of working below groundwater table, prior approval of the Ministry of Environment, Forest and Climate Change and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out”</i>.PP submitted that the report only comes into picture when groundwater table is intersected by mining operations and the water table will not be intersecting during the life of the mine and hence the report was not required implying that there was no delay for carrying out the Hydro-geological study.</p> <p>Further, PP submitted that however as per the suggestion of MoEF&amp;CC, Shillong vide letter no. 14/18/2011/E-RONE/2305, dated 21.12.2021, hydrogeological study has been carried out and a report was submitted to Integrated Regional Office Shillong.</p>										
2	<p>The Public Hearing was conducted on 29.01.2022 at Village Lumshnong, Tehsil Khliehriat, District East Jaintia Hills, Meghalaya. Project proponentis requested to provide the video of public hearing proceeding via CD.</p>	<p>The Project Proponent submitted that the soft copy (CD) of the Public hearing video to MoEF&amp;CC along with hard copy. PP also provided the link of the public hearing video as given below:  <a href="https://drive.google.com/drive/folders/1vRBBvtbhSIFIQ2F7_q4PxxgJz0wOThEna">https://drive.google.com/drive/folders/1vRBBvtbhSIFIQ2F7_q4PxxgJz0wOThEna</a></p>										
3	<p>The project proponent needs to upload the closure report of the certified compliance report on PARIVESH portal. Project proponent also needs to upload the past production</p>	<p>The Project Proponent uploaded the closure report issued by the Integrated Regional Office, Shillong vide letter dated 05.09.2022 on closure/compliance report against action taken report for compliance of conditions of EC. The Project Proponent also submitted the production details authenticated from the Office of the Divisional Mining Officer, West Jaintia Hills vide letter dated 12.04.2022 from the period 2016-17 to 2021-22 (upto Feb, 2022).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center">S. No</th> <th align="center">Year</th> <th align="center">Production (MT)</th> <th align="center">EC Capacity (Lakh)</th> <th align="center">Excess production</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	S. No	Year	Production (MT)	EC Capacity (Lakh)	Excess production					
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	detail duly authenticated by the DMG on PARIVESH portal.				TPA)												
		1	2016-17	-	9.0	-											
		2	2017-18	8,97,192.41	9.0	-											
		3	2018-19	8,98,721.13	9.0	-											
		4	2019-20	8,99,772.42	9.0	-											
		5	2020-21	8,99,103.10	9.0	-											
		6	2021-22 (upto Feb, 2022)	8,97,834.88	9.0												
4	As per closure report of ATR dated 21.04.2022, the project proponent needs to approach the IRO for verification, as identified by the IRO in the ATR report.	The Project Proponent submitted the verification report issued by the Integrated Regional Office, Shillong vide letter dated 05.09.2022 on closure/compliance report against action taken report for compliance of conditions of EC. Site visit was conducted on 30.08.2022 for the project to confirm the compliance. IRO observed that all non-compliances have been addressed by the project authorities.															
5	The project proponent needs to submit the time frame for completing the construction of conveyor belt along with the complete breakup of the total project cost.	The Project Proponent reported that the conveyor belt installation will be completed by March 2025 and cost breakup of conveyor is given below:															
		<table border="1"> <thead> <tr> <th>Particulars</th> <th>Cost (in Cr)</th> </tr> </thead> <tbody> <tr> <td>Mechanical with drive</td> <td>8.5</td> </tr> <tr> <td>Civil &amp; Structural</td> <td>3.75</td> </tr> <tr> <td>Bag Filters</td> <td>0.75</td> </tr> <tr> <td>Power supply &amp; control system</td> <td>0.25</td> </tr> <tr> <td>Total</td> <td>13.25</td> </tr> </tbody> </table>				Particulars	Cost (in Cr)	Mechanical with drive	8.5	Civil & Structural	3.75	Bag Filters	0.75	Power supply & control system	0.25	Total	13.25
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6	As the seismic zone is V, the project proponent needs to submit the risk assessment and disaster management plan with specific reference to Seismic zone.	The Project Proponent submitted that the possible risks in the case of mining projects are erosion, inundation/floods, accidents due to vehicular movement and accidents during mineral loading and transporting etc.  PP reported that there is always a risk of an earthquake as the project site is located in District-East Jaintia Hill which falls in Seismic Zone V as shown in the map below. During 1897 the state was severely affected by an 8.7 magnitude earthquake which resulted in untold miseries. The earthquake of 8.5 magnitude which occurred in 1950															

	<p>also caused loss of human lives and properties. The State experiences several low to medium intensity earthquakes regularly. As per the District Disaster Management Plan, East Jaintia Hills District, Khliehriat, 2021-22 the probability and history of earthquake is described in the table below:</p> <table border="1"> <thead> <tr> <th>Type of hazard</th> <th>Year of occurrence</th> <th>Area affected</th> <th>Impact on life</th> <th>Livelihood</th> <th>Livestock</th> <th>Damage to crops</th> </tr> </thead> <tbody> <tr> <td>Earthquake</td> <td>Every year</td> <td>Nil</td> <td>Nil</td> <td>Nil</td> <td>Nil</td> <td>Nil</td> </tr> </tbody> </table> <p>PP submitted that the evacuation will be done instantly. Proper training will be given to all employees.</p>						Type of hazard	Year of occurrence	Area affected	Impact on life	Livelihood	Livestock	Damage to crops	Earthquake	Every year	Nil	Nil	Nil	Nil	Nil
Type of hazard	Year of occurrence	Area affected	Impact on life	Livelihood	Livestock	Damage to crops														
Earthquake	Every year	Nil	Nil	Nil	Nil	Nil														

- vi. The Project Proponent submitted that the prospecting licence was granted by the State Govt. vide Lr no: MG/21/2003/163 dated 13.11.2003 over an area of 473.09 ha and the prospecting licence deed was executed on 24.01.2004. Then, the Letter of Intent for grant of mining lease was granted by the State Govt. vide Lr No: MG.54/2009/190 dated 22.12.2009 over an area of 70.0 ha for mining of Limestone. The mining lease was granted by the State Govt. vide Lr No: MG.54/2009/350 dated 04.01.2017 over an area of 70.0 ha for mining of Limestone. Mining lease deed executed on 10.01.2017 for a period of 50 years upto 09.01.2067.
- vii. The Project Proponent reported that the total mine lease area is 70.0 ha, out of which 4.82 ha is a forest land and 65.18 ha is a private land.
- viii. The Project Proponent submitted that the Review of the Mining Plan (Progressive Mine Closure Plan) was approved by the Regional controller of Mines, IBM, Guwahati vide letter no. IBM/GHY/MEG/EJNH/LST/MP-83 dated 27.08.2021 over an area of 70.0 ha for the period 2021-22 to 2025-26. The method of mining will be opencast mechanised mining with drilling and blasting. Presently, the mining is being carried out in a single pit from 567 m RL to 516 m RL with bench height varying from 3 m to 9 m. A minimum bench width of 25 m to 30 m is being maintained for safe operation of mining machinery. PP reported that the mineable reserves is 95.89 million tons and the life of the mine will be 38 years. The material after blasting is loaded by hydraulic excavators of about 2.6 m<sup>3</sup> bucket capacity into tippers of 16 m<sup>3</sup> carrying capacity for its transportation to crusher and waste dump yards. PP reported that the mining will not intersect the water table as the ultimate depth of mining is 423 mRL and the depth of the water table is 323 mRL.
- ix. Water requirement:

Total water requirement	45 KLD	Fresh water	5 KLD
		Treated Water	40 KLD

Source	That water requirement of the project will be fulfilled by tankers from nearby Cement Plant for drinking. STP treated water will be used for sprinkling and plantation. Pit water will also be used for sprinkling purposes.
Permission	PP submitted that the NOC for withdrawal of surface water obtained from the Office of the Chief Engineer (Irrigation) vide letter no. AGRI/IRRI-110/96/2004-05/80 dated 15.09.2004.
Additional information (if any)	Accumulated rain water in the pits will also be used for dust suppression and plantation.

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

Particulars	Particular's Name	Distance & Directions
Village	Lumshnong	0.72 km, NE
Town	Khliehriat	20.04 km, North
Highway	NH-6	Approx. 0.51 km, NE
Railway station	Hilara Railway Station Badarpur railway station-	34.20 km, SE 39 km, SE
Water bodies	Lubha River Seshympa River Wah Lukha River	4.06 km, SSE 4.45 km, WNW 5.50 km, ENE

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

Forest Land/Protected Area/ Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter/Remarks
Forest Land	Yes	4.82 ha is a private forest land for which forest diversion has already been obtained from MoEF&CC vide letter no. 3-MG - B024/2014 -SHI/ 4483-84 dated 11.01.2017.
National Park	No	Not Applicable
Wildlife Sanctuary	Yes	Narpuh WildLife Sanctuary -4.8 Km South
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)	Yes	ESZ- Narpuh WildLife Sanctuary - 2.7 km, SE  PP submitted the letter from the Office of the Principal Chief Conservator of Forest & HOFF, Meghalaya vide letter dated 22.08.2019 stating that the aerial distance between mining lease plot of 70 ha and the boundary of the notified eco sensitive zone of Narpuh WildLife Sanctuary is 2.7 kms.

Schedule-I species	Yes	PP reported that Ten Schedule I Species are found in the buffer zone such as <i>Nycticebus bengalensis</i> (Slow loris), <i>Prionailurus bengalensis</i> (Leopard Cat), <i>Python molurus</i> (Indian Rock Python), <i>Neofelis nebulosa</i> (Clouded Leopard), <i>Buceros bicornis</i> (Great Pied Hornbill), <i>Canis lupus pallipes</i> (Indian Wolf), <i>Manis pentadactyla</i> (Pangolin), <i>Hoolock hoolock</i> (Western hoolock gibbon), <i>Melursus ursinus</i> (Sloth bear) and <i>Capricornis sumatraensis thar</i> (Himalayan serow).
Wildlife Conservation Plan	Yes	<p>PP submitted that the Wildlife Conservation Plan approved with a financial outlay of Rs. 107.80 Lakhs along with Supplementary Plan of Rs. 15 lakhs by the Government of Meghalaya, totalling to Rs. 122.80 lakh. Out of this 122.80 lakh, PP already spent an amount of Rs 110.95 lakh. PP also submitted that during a meeting held on 09.08.21 between the Chief Wildlife warden, Industries, and Government departments, it was decided that a Regional Conservation plan for the East Jaintia Hills district would be prepared under the supervision and guidance of CWLW, Meghalaya and the cost for preparation and implementation of the Regional Conservation Plan may be shared by various project proponents on a proportionate basis keeping in view the likely impacts of each project on the wild life and their habitat. Star Cement Ltd. also confirmed that it shall be part of the regional conservation plan and will pay the fee as determined for our project.</p> <p>PP also submitted the proof of the combined conservation plan submitted to the Principal Chief Conservator of Forest &amp; HOFF, Meghalaya vide letter dated 21.03.2022</p>

- xii. The Project Proponent reported that an area of 1.36 ha area (along the 7.5 safety zone) has been already developed as a greenbelt up to 31.03.2021. At the end of the plan period remaining area of 1.84 ha will be covered under the

7.5 m peripheral area. At the end of life of mine an area of 30.46 ha will be covered under the plantation on backfilled area and mined out benches. PP earmarked a budget of Rs 35.0 Lakhs towards development of green plant & plantation till the end of life of mine.

xiii. The Project Proponent reported that the Baseline study was carried out for the summer season (March 2017 to May 2017), and revalidated baseline study was carried out during October 2017 and again revalidated baseline study was conducted during December 2021.

xiv. Public Hearing (PH) Details:

Advertisement for PH with date	23 Dec 2021
Date of PH	29 Jan 2022
Venue	Community hall, Lumshnong village
Chaired by	Shri A. Bharanwal, I.A.S., Deputy Commissioner, East Jaintia Hills District.
Main issues raised during PH	Impact on agricultural activities, forest land, water bodies, wildlife, population of the area, Employment to locals, Pollution, Ecological degradation, Dust generation during drilling, infrastructure facilities, education facilities, etc.,
Budget proposed for addressing issues raised during PH	Rs 214.0 lakhs

vii. Details of CTE/CTO, Certified Compliance report, Past Production:

Particulars	Letter no., date and details
Consent to Operate (CTO)	The Project Proponent submitted the Consent to Operate issued by the Meghalaya State Pollution Control Board vide letter dated 14.08.2019 for a period of 3 years i.e., upto 31.07.2022.
Certified EC compliance report	The Project Proponent submitted the verification report issued by the Integrated Regional Office, Shillong vide letter dated 05.09.2022 on closure/compliance report against action taken report for compliance of conditions of EC. Site visit was conducted on 30.08.2022 for the project to confirm the compliance. IRO observed that all non-compliances have been addressed by the project authorities.
Certified past production	The Project Proponent also submitted the production details authenticated from the Office of the Divisional Mining Officer, West Jaintia Hills vide letter dated 12.04.2022 from the period 2016-17 to 2021-22 (upto Feb, 2022).

S. No	Year	Production (MT)	EC Capacity (Lakh TPA)	Excess production
1	2016-17	-	9.0	-
2	2017-18	8,97,192.41	9.0	-
3	2018-19	8,98,721.13	9.0	-
4	2019-20	8,99,772.42	9.0	-
5	2020-21	8,99,103.10	9.0	-
6	2021-22 (upto Feb, 2022)	8,97,834.88	9.0	

- xv. The Project Proponent submitted that this is an existing mine. During proposed expansion no additional land will be needed and hence there is no settlement or rehabilitation envisaged.
- xvi. The Project Proponent submitted that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

xvii. Details of the EMP:

S.No	Particulars	Capital Cost (Lakhs)		Annual recurring cost (Lakhs)	
		Existing	Additional Proposed	Existing	After Expansion
1	*Pollution Control (Water Sprinkling, Retaining wall, Check Dams, siltation pond and Garland drain)	68.00	75.00	2.00	6.00
2	Environment monitoring	-	6.00	2.00	4.84
3	Public Health and Safety	-	-	-	6.00
4	Green Belt	11.48	35.00	1.00	3.00
5	Haul Road Maintenance		-	12.00	15.00
6.	Conservation Plan	122.80	150.00	-	-
	Total	202.28	266.00	17.00	34.84

xviii. Details of project cost and employment:

Particulars	(Rs. In Lakhs)
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Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	480.0 Lakh (EMP cost 266 Lakh + Public Hearing budget 214.0 Lakh)
Project Cost	Rs 25.5 crores
Employment	84 (Direct)

### **3. Observation and Recommendation of the Committee:**

The EAC deliberated on the additional sought details sought by the EAC in its EAC meeting held during 27-29, July 2022. The Project Proponent informed the EAC that the ground water table will not be intersecting during the life of the mine and hence the report was not required implying that there was no delay for carrying out the Hydro-geological study. Further, PP informed that however as per the suggestion of MoEF&CC, Shillong vide letter dated 21.12.2021, hydrogeological study has been carried out and a report was submitted to Integrated Regional Office Shillong.

The EAC asked the Project Proponent to show the certified compliance report issued by the Ministry's Integrated Regional Office (IRO). The Project Proponent informed the EAC that the site visit was conducted by IRO on 30.08.2022 for the project to confirm the compliance. Further, the Project Proponent informed that there 6 non-compliances identified by the IRO and all non-compliances have been addressed. The permanent water sprinklers have been repaired and are now fully operational. IRO also observed that all non-compliances have been addressed by the project authorities and issued the verification report vide letter dated 05.09.2022. The Project Proponent also informed that there is no excess of production has been done against the EC capacity of 9.0 Lakh TPA.

The EAC noted that the Project Proponent informed that the conveyor belt installation will be completed by March 2025. The EAC was of the view that the Project Proponent needs to shorten the time for installation of conveyor belt of length 1.1km i.e., not more than 18 months. The Project Proponent agreed to install the conveyor belt by March, 2024. The EAC observed that the proposal is for expansion of production from 9.0 Lakh TPA to 25 Lakh TPA which is 2.7 times the original EC capacity. The EAC also observed that the Project Proponent proposed to dispatch the entire ROM from the mine to the crusher plant located outside mine lease area in SCL cement plant and SCML cement plant at about 3.3 km, North and 7.4 km, East respectively by road. The EAC was of the view that the potential impact of the pollution transporting by road will be higher due to expansion in production capacity. The EAC opined that unless the crusher of 1400TPH capacity along with a conveyor belt of length 1.5 km is in place, the Project Proponent shall not increase the production capacity more than 15.0 Lakh TPA. The EAC suggested that the Project Proponent shall increase the production capacity to 25.0 Lakh TPA only after the installation and commencement of crusher of 1400TPH capacity along with a conveyor belt of length 1.5 km.

The EAC was of the view that since Schedule-I species are found in the study area and as informed by the Project Proponent, priority shall be given to preparation of integrated conservation plan involving all the mines by the Forest Department as to ensure the protection of Schedule-I species in the study area of 10 km radius. The EAC advised the Project Proponent to take adequate measures for protection of water bodies such as Lubha River: 4.06 km, SSE, Seshympa River: 4.45 km, WNW and Wah Lukha River: 5.50 km, ENE. The EAC opined that since the project is located in Seismic Zone V, the Project Proponent needs to monitor the blasting for each blast and shall maintain the record of the monitored data. Also, the Project Proponent needs to carry out the mock drills in case of emergency situation in consultation with Directorate General of Mines Safety (DGMS).

Based on the above discussions held, the EAC during 28 to 29<sup>th</sup> September, 2022 **recommended** the proposal for grant of Environmental Clearance (EC) for mining of Limestone in Lumshnong Limestone Mine of M/s Star Cement Limited for enhancement in production capacity of Limestone from 9 Lakh TPA (ROM) to 25 Lakh TPA (ROM) with 5 Lacs TPA of waste including soil (Total Excavation: 30.0 Lakhs TPA) in the mine lease area of 70ha, located at village Lumshnong, Tehsil Khliehriat, District East Jaintia Hills, Meghalaya under the provisions of EIA Notifications, 2006 and its amendments therein, subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects: -

- i. The expansion of Limestone production from 9.0 Lakh TPA to 25.0 Lakh TPA will be operational only after the commissioning of crusher of 1400TPH capacity along with a conveyor belt of length 1.5 km. Till the time the capacity of the mine will remain up to 15.0 Lakh TPA only with strict air pollution control measures. The commission of new crusher of 1400TPH capacity along with a conveyor belt of length 1.5 km shall be intimated to the Ministry's Integrated Regional Office. Accordingly, State Pollution Control Board shall not grant Consent to Operate (CTO) for the expansion capacity of 25.0 Lakh TPA production till the installation of conveyer belt.
- ii. As agreed by the Project Proponent during the meeting, commissioning of crusher of 1400TPH capacity along with a conveyor belt of length 1.5 km shall be completed by March, 2024.
- iii. The Project Proponent needs to monitor the blasting for each blast and shall maintain the record of the monitored data and shall submit the report to the Ministry's Integrated Regional Office along with six monthly compliance report.
- iv. The Project Proponent shall give priority to preparation of integrated conservation plan involving all the mines by the Forest Department as to ensure the protection of Schedule-I species in the study area of 10 km radius.



- v. The Project Proponent needs to take adequate measures for protection of water bodies such as Lubha River: 4.06 km, SSE, Seshympa River: 4.45 km, WNW and Wah Lukha River: 5.50 km, ENE. PP also needs to monitor the surface water quality once in three months and shall submit the report to the Ministry's Integrated Regional Office. The Project Proponent shall also monitor water quality with specific reference to Langelier Saturation Index to assess the impact of calcium carbonate on water quality.
- vi. The Project Proponent needs to carry out the mock drills in case of emergency situation in consultation with Directorate General of Mines Safety (DGMS).
- vii. The budget of Rs. 214.0 Lakhs to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes.
- viii. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 480.0 Lakhs. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- ix. The Project Proponent needs to perform routine maintenance to ensure the survival rate of the plantation.
- x. The Project Proponent needs to facilitate the online education system by providing Wi-Fi connectivity, smart classrooms and desktops/tablets.
- xi. 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.
- xii. 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.

**2.4 Kurai Limestone block (Auction block) of M/s ACC Limited for mining of Limestone with production capacity of 3.0 MTPA and Topsoil: 0.076 million cum/Annum and Waste: 1.269 million cum/Annum with one no. of crusher of 1500 TPH in the mine lease area of 480.80 ha, located at Village-Kurai, Kurli, Sindola, Tehsil-Wani, District-Yavatmal, Maharashtra - [F.No:IA-J-11015/35/2022-IA-II(NCM), Proposal No: IA/MH/MIN/290566/2022 dated 30.08.2022, Consultant:Perfact Enviro Solutions Pvt Ltd.]- Terms of Reference (ToR)**

The proposal is for grant of Terms of Reference for M/s ACC Limited for mining of Limestone in Kurai Limestone block (Auction block) with production capacity of 3.0 MTPA and 1.345 million cu.m/annum of waste including topsoil with one no. of crusher of 1500 TPH in the mine lease area of 480.80 ha, located at Village-Kurai, Kurli, Sindola, Tehsil-Wani, District-Yavatmal, Maharashtra.

2. Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- i. The mine lease area is located between Latitude: 19°50'36.44"N-19°52'35.26"N and Longitude 80°04'21.03"E-80°11'38.65"E. The mine lease area falls under the Survey of India Toposheet No: 56 I/13 and 56 M/1 and falls in Seismic Zone – III.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals of the schedule of the EIA Notification, 2006 and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. The Project Proponent submitted that the Letter of Intent was issued by the Government of Maharashtra, Industry, Energy and Labour Department, vide Lr. No: MMN-0222/C.R.26/Ind-9(A) dated 07.03.2022 for grant of mining lease for Kurai Limestone Block over an area of 480.80 ha for a period of 50 years and this letter of intent is valid for a period of 03 (three) years from the date of its issuance.

iv. Land Use/Land Cover of the mine lease area:

Forest land	2.94 ha
Government land	0.20 ha
Private land	477.66 ha
Total Mining lease area (MLA)	480.80 ha
Private land for crusher, workshop & other infrastructure outside the MLA	NA

v. Details of Mining Plan:

Mining Plan along with Progressive Mine Closure Plan	Letter No.	YTL/LST/MPLN-01/2022-NGP
	Dated	30.05.2022
	Mineral	Limestone

approved by Indian Bureau of Mines (IBM)	Mine lease area	480.80 ha
	Validity	5 years
Mining Parameters	Quantitative Description	
Method of Mining	Opencast semi mechanized mining with drilling and blasting	
Geological Reserves	89.14 Million Tonnes	
Mineable Reserves	83.30 Million Tonnes	
Life of mine	31 years as of now with given exploration data	
Bench Height	8-10 m	
Bench Width	10-20 m	
Individual bench slope	80° - 90°	
Overall pit slope	<45°	
Crusher	PP proposed to install one no. of crusher of capacity 1500 TPH within the mining lease area.	
RoM output size	-1000 mm	
Transportation details	PP reported that the material will be transported in two scenarios: i. Selling to potential buyers - Transportation by road ii. In case of consumption in own cement plant - material will be transported through tippers/dumpers to nearby ACC Sindola mines (5 km) by village road. From there it will be transported in an enclosed conveyor belt to the cement plant.	
Dumpers capacity	50-55 Tons	
Topsoil	PP reported that the max 0.076 million cu.m/Annum of topsoil will be temporarily stacked and used extensively for plantation.	
OB/Waste	PP reported that the maximum waste generation will be 12,69,562 cu.m per annum in the 5 <sup>th</sup> year of the plan period. Generated waste will be stacked at a designated dump area. For the proposal period of five years there will be no backfilling. Backfilling will be done at the conceptual stage after complete extraction of minerals from the pit.	
Conceptual Land use	PP reported that at the conceptual stage, an area of 328.0 ha will be used for mining, 2.0 ha will be utilized for roads, 1.0 ha area for infrastructure, 35.0 ha for waste & mineral reject dump, and an area of 60.0 ha for plantation upto conceptual period and an area of 54.8 ha will remain undisturbed.	

vi. Water requirement:

**Minutes of 4<sup>th</sup> EAC (Non-Coal Mining) meeting held during 28-29 September, 2022**

Total water requirement	85.0 KLD		Mine operation including dust suppression	35.0 KLD
	Fresh water	5.0 KLD		
	Harvested Water	80.0 KLD	Greenbelt	5.0 KLD
			Domestic	5.0 KLD
			Workshop	10.0 KLD
		Crusher	30.0 KLD	
Source	PP reported that the requirement of water in the initial stages would be met from the adjacent rain harvested mine sump of M/s ACC Ltd or nearby water source/groundwater subject to necessary permission from competent authorities. Subsequently, rainwater will be collected into mined out pit will be used for dust suppression upon haul road and crusher unit, drilling and gardening			
Permission	Permission for ground water extraction will be taken for meeting freshwater demand.			

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

Particulars	Particular's Name	Distance & Direction
Village	Kurai	0.3 km, West
Town	Wani	21.41 km, North
Highway	SH-236 SH-234	Adjacent to the mine lease area 2.56 km, NNW
Railway station	Mukutban Railway Station	15.54 km, SW
Water bodies	Seasonal drain passing through the area	Within mine site
	Nala near Nandgaon	1.02 km, WSW
	Nala near Dhakori	1.30 km, SSW
	Penganga River	3.66 km, SSE
	KhadakiaNala	3.95 km, NE
	Vaidarbha River	4.44 km, SW
	Nala near Pimpri	6.13 km, South
	Nala near Wanoja	6.61 km, SE
	AmalNala	6.70 km, SE
	Shiv Nala	6.75 km, SW
	NirgudNala	8.14 km, NE
	Pond near Naranda	8.77 km, SSE
	Wardha River	9.35 km, NE

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

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	Yes	PP reported that an area of 2.94 ha was part of the auction block and this patch of forest land will be surrendered at the time of execution of lease deed.
National Park	No	Not Applicable
Wildlife Sanctuary	No	Not Applicable
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)	No	Not Applicable
Schedule-I species	No	PP reported that there is no schedule I species reported from the buffer area. However, during the baseline study if any schedule I species found within the study area, an appropriate conservation plan will be prepared.

ix. Green belt/plantation details:

Proposed area for green belt/plantation	PP reported that at the end of the conceptual period, a total 60 Ha will be covered under the green belt. In addition, a backfilled area of 200 Ha & 35Ha of waste dump will also be afforested.
Budget for green plant & plantation till the end of life of mine.	Rs295.0 lacs (Tentative cost)
Budget for nursery	-
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & Non-mineralized zone	9.0 ha 51.0 ha

- x. The Project Proponent reported that are dwellings in the western periphery of the lease area for which land will be acquired as per prevailing laws.
- xi. The Project Proponent submitted that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up.
- xii. The Project Proponent submitted the Affidavit as per Ministry's OM dated 30.05.2018 in an non-judicial stamp paper ZW 321342 dated 19.08.2022 stating that the company will comply with the order of the Hon'ble Supreme Court dated 02.08.2017 in writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
- xiii. The total cost of the project is Rs 493.5 Cr and about 66 persons will be get employment.

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

The EAC noted that the instant mine lease area has been granted under auction for mining of Limestone in Kurai Limestone Block over an area of 480.80 ha. The EAC on viewing the KML file noted that the cement plant is located on the north eastern side. The Project Proponent informed the EAC that the mineral will be transported through tippers/dumpers to nearby ACC Sindola mines by village road to a distance of 5 km and then it will be transported in an enclosed conveyor belt of length about ~8km to the cement plant. PP also informed that the crusher of 1500 TPH will be installed in the mine lease area. The EAC noted that the mineral transportation is passing through the village road and hence asked the Project Proponent to explore the possibility of transporting bypassing the village road and also to explore the possibility of installing conveyor belt from Kurai Limestone mine to ACC Sindola mines to reduce the impact of transportation by road.

The EAC asked the Project Proponent to show the environmental sensitivity in the vicinity of the mine lease area and around 10 km radius in KML file. The Project Proponent informed the EAC that the Kurai Village is located outside the mine lease area but few hutments are located within the mine lease area and will not be disturbed at any stage of mining. The EAC noted that the Kurai Hospital is also located within the mine lease area. The Project Proponent informed the EAC that it is not a hospital and it is a dispensary only. The EAC was of the view that the Project Proponent needs to explore the possibility of shifting the dispensary outside the mine lease area. The Project Proponent informed the EAC that the State Highway SH-236 is running parallelly adjacent to the mine lease area on the western side. The EAC observed that there are two other mines located in the radius of 500m and the EAC asked the Proponent to carry out the cumulative impact assessment by considering all the activity. Further, the Project Proponent informed that there are no National Parks, Wildlife Sanctuary, Eco-Sensitive Zone within 10 km radius of the study area.

The Project Proponent informed the EAC that the total mine lease area is 480.80 ha, out of which 0.2 Ha is Govt. Land, 2.94 Ha is forest land and remaining 477.66 Ha is private agricultural land. PP also informed that an area of 2.94 ha of forest land will be surrendered at the time of execution of the mine lease deed and letter in this regard was already submitted to the State Govt. The EAC asked the Project Proponent to submit the cost benefit analysis study comparing the agricultural production and mineral production at the time of appraisal of EC.

The EAC asked the Project Proponent whether the exploration has been carried out over the entire mine lease area of 480.80 ha or not? The Project Proponent informed the EAC that exploration has been carried out by Director of Geology & Mining, Govt. of Maharashtra, Nagpur and as per the tender document and the geological report made available, the Geological reserves estimated to be 89.14 Million Tonnes and Mineable reserves estimated to be 83.30 Million Tonnes.

Further, the Project Proponent informed that detailed exploration will be carried out during 1<sup>st</sup> five year of plan period. The EAC asked the Project Proponent that how will the location of the crusher and the waste dump will be finalized when complete exploration data is not available? The Project Proponent informed that crusher location has been fixed based on the data available and will be located in the non-mineralized zone. The EAC suggested the Proponent to consider all these facts while finalizing the location of crusher and waste dump.

The EAC was of the view that since dispensary and few hutments of Kurai village are located within the mine lease area. In order to carry out control blasting the Project Proponent needs to carry out the scientific study to arrive at safe charge per delay and also to project the anticipated noise level and the post project scenario of ambient air quality. Based on the above discussions held, the EAC during 28 to 29<sup>th</sup> September, 2022 **recommended** the proposal for grant of Terms of Reference for Kurai Limestone block (Auction block) of M/s ACC Limited for mining of Limestone with production capacity of 3.0 MTPA and Topsoil: 0.076 million cum/Annum and Waste: 1.269 million cum/Annum with one no. of crusher of 1500 TPH in the mine lease area of 480.80 ha, located at Village-Kurai, Kurli, Sindola, Tehsil-Wani, District-Yavatmal, Maharashtra a 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. In view of the prime agricultural land proposed under mining lease area, the Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries.
- ii. The Project Proponent needs to carry out the scientific study to arrive at safe charge per delay to carry out the blasting and also to project the anticipated noise level and the post project scenario of ambient air quality.
- iii. The Project Proponent needs to explore the possibility of transporting bypassing the village road and also to explore the possibility of installing conveyor belt from Kurai Limestone mine to ACC Sindola mines to reduce the impact of transportation by road.
- iv. The Project Proponent needs to explore the possibility of shifting the dispensary outside the mine lease area.
- v. During the submission of EC proposal, the project proponent needs to submit the total excavation in MTPA.

- vi. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution.
- vii. The Project Proponent needs to monitor the ambient air quality and noise level at Village Kurai, predominant downwind direction and at other sensitive receptors such as dispensary and forest. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- viii. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the mines in the study area and should indicate the capacity of 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.
- ix. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years.
- 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.
- 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 shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

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**List of members of Expert Appraisal Committee participated through VC**

S.No	Member Name	Member Address	Designation	28 <sup>th</sup> Sept., 2022	29 <sup>th</sup> Sept., 2022
1	Dr. Dinesh Misra, IFS (Retd.)	Plot No 65, Sector 8, Gandhinagar, Gujarat India, 382 008	Chairman	Yes	Yes
2	Sh. Niranjan Kumar Vasu, IFS (Retd.)	816, Shanti Nagar, Opposite Durgapur Railway Station, Jaipur-Rajasthan, India, 302018	Member	Yes	Yes
3	Dr. Asha Rajvanshi Scientist 'G' (Retd.), WII	B/104/106 Rock Valley Apartments, GMSRoad, 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	Yes	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	No	No
7	Prof.Devesh Walia, Professor, Department of Environmental Studies	Department of Environmental Studies, NEHU, Shillong-793022 Meghalaya	Member	Yes	Yes

**Minutes of 4<sup>th</sup> EAC (Non-Coal Mining) meeting held during 28-29 September, 2022**

8	Dr. Suresh Tiwari Scientist-F	Indian Institute of Tropical Meteorology, Pune, New Delhi Branch, Prof. Ram Nath Viji Marg Rajinder Nagar, New Delhi - 110060	Member	No	No
9	Dr. K.G Asha Manjari, Professor, University of Mysore	10/B, "SPARSHA", 2 <sup>nd</sup> Main, 2 <sup>nd</sup> Cross, Bhogadi Ind 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	Regional Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	No	Yes
13	Shri Nazi	Representative of Directorate General of Mines Safety	Member	Yes	Yes
14	Shri Pankaj Verma	2 <sup>nd</sup> Floor, Prithvi Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.	Member Secretary	Yes	Yes

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