

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

SUMMARY RECORD OF 18th MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 18th meeting of the Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **June, 22-24, 2020 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.

(1.1) Deliberation & Circulation on the Minutes of the 17th EAC Meeting held during May, 28-29, 2020 and 1st June, 2020 and Special EAC Meeting held on 12th June, 2020

The minutes of 17th EAC Meeting held during May, 28-29, 2020 and 1st June, 2020 and Special EAC Meeting held on 12th June, 2020 was placed before the members of the Committee. The committee confirmed the minutes.

2.1 Sukinda Mines (Chromite) by M/s Indian Metals & Ferro Alloys Ltd with expansion of production from 3.51 LTPA to 6 LTPA, change in mining technology from opencast to opencast & underground and establishment of chrome ore beneficiation plant (COBP) of 40 TPH over a lease area of 116.76 ha located at Village- Kaliapani, Tehsil- Sukinda, District- Jajpur, State- Odisha (File No: J-11015/204/2015-IA. II(M); Proposal No: IA/OR/MIN/114264/2007; Consultant: Perfect Enviro Solutions Pvt. Ltd)-Consideration of Environmental Clearance.

1. The proposal of M/s Indian Metals & Ferro Alloys is for enhancement in production of chromite from 3.51 Lakh TPA to 6.0 Lakh TPA with change in technology from opencast to combination of opencast and underground mining and establishment of chrome ore beneficiation plant of 40 TPH feed capacity in the mining lease area of 116.76 ha. The mining lease area of 116.76 ha is situated at Khasra No. 488 (p), 502, 627 (p), 628 (p), 629, 630 (p), 641 (p), 691 (p), 888 (p), 889 (p), 892 (p), 894 (p), 895 (p), 627/1010(p), 627/1011 (p), 883 (p) of Village Kaliapani, Tehsil Sukinda, District Jajpur, Orissa. The mine lease area falls in the Survey of India Topo sheet 73-G/16 (OSM Sheet no. F45N16) with latitude 21°01'45.51"N to 21°2'33.81" N & longitude is 85°45'35.91" E to 85°46'42.03" E.

The Committee previously asked that PP needs to submit details of total

excavation (in same unit) including mineral, overburden (OB), inter-burden (IB), side burden (SB) and waste/topsoil production and etc.

The PP in its reply submitted on 31.01.2020 mentioned that the total excavation is 28.0 LTPA including mineral (6.0 LTPA), and overburden (OB) (22.0 LTPA).

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category “A”, Project or Activity 1(a) as the Mining lease area is more than 100 Ha.

3. The PP applied for ToR vide proposal no IA / OR / MIN / 28526 / 2015 dated 09.06.2015 and the proposal was considered in EAC in its 36th meeting held during July 29–30, 2015. ToR has been granted by the Ministry vide letter No J11015/204/2015-IA-II (M) dated 24th August 2015. PP submitted that the public hearing was completed on 23.06.2017 and submitted EIA report to Ministry for appraisal. The proposal was placed in the EAC meeting held during August 23-24, 2018. However, PP vide email dated 20.08.2018 mentioned that the consultant has been changed and the new consultant may take some time to validate the data and accordingly requested to defer the proposal. Therefore, the Committee deferred the proposal and delisted. Subsequently, PP applied online on 30.08.2018 for extension of validity of ToR for 1 year from 24.08.2018 to 23.08.2019. The proposal was considered in the EAC meeting held during October 23-24, 2018 and the extension in validity of ToR (i.e. 24.08.2018 to 23.08.2019) was granted by Ministry vide letter no. J-11015/204/2015-IA-II (M) dated 29th July 2019. The PP applied for EC vide proposal No IA/OR/MIN/114264/2007 along-with EIA/EMP report to Ministry at PARIVESH Portal on 13.08.2019. The EDS was raised and PP again submitted the proposal on 12.09.2019. The proposal was then placed in EAC meeting held during 21-22 October, 2019 wherein the Committee deferred the proposal for want of requisite information. PP submitted the information online on 31.01.2020 but as the proposal was not available online for inclusion in agenda list the proposal could not be considered. The proposal is now placed in EAC meeting held during 22-24 June, 2020 wherein the Committee deliberated on the following information submitted by PP.

Sl. No.	ADS dated 13.12.2019	Reply
i.	<i>PP collected baseline data during October 2015 - December 2015 which is 3 years old. The Committee asked the PP to collect fresh 1-month baseline data and analysis the data. In addition, the PP needs to submit comparative data and trend analysis</i>	<i>One-month data for the period November 2019 has been collected and analyzed by NABL accredited laboratory. Test reports are attached as Annexure 1 to the letter by PP. Comparative data and trend analysis considering the values obtained during earlier EC appraisal, baseline data collected during Oct-Dec 2015 period, regular monitoring and fresh 1-month baseline data for all relevant</i>

	<p>considering the values obtained during earlier EC appraisal, baseline data collected during Oct – Dec 2015 period, regular monitoring and fresh 1-month baseline data for all relevant parameters</p>	<p>parameters has been carried out which is attached as Annexure 1b to the letter by PP.</p>
ii.	<p>PP submitted certified compliance report from RO, MoEF&CC, Bhubaneswar vide letter no.101-409/EPE dated 20.02.2017 which is about 2 year old and reveals that some of the conditions are in process of complying. The Committee is of the view that EC obtained on 2002 and still in the process of complying the conditions, so PP needs to submit updated compliance report for existing EC conditions.</p>	<p>Updated Certified compliance report has been obtained vide letter no 101-409/08/EPE dated 06.12.2019 and is attached as Annexure 2a to the letter by PP. RO has observations on two points regarding plantation and settling pond vide letter no 101-409/08/EPE Dated 10.12.2019 which has been duly complied with and replied vide letter no IMFA/MPC/SMC/2019/92 Dated 16.12.2019. The letters are attached as 2b and 2c respectively to the letter by PP.</p>
iii.	<p>PP proposed for chrome ore beneficiation plant (40 TPH), so, PP should perform the cumulative effect of mining and beneficiation plant in the EIA studies and submit the report separately. The report should also highlight the techno-economic benefit of beneficiation plant.</p>	<p>Cumulative effect of mining and beneficiation plant and Techno-economic benefit of the Chrome Ore Beneficiation Plant have been prepared and is attached as Annexure 3 to the letter by PP. As per the report the beneficiation plant is viable considering the fact that subgrade chrome ore mining will not incur any cost as it has already been mined out and stacked within the lease area. The sale price of the beneficiated product will outweigh the cost of beneficiation plant. Since beneficiation will be done through wet process hence there will be minimal impact on the environment due to this plant as given in Annexure 3 to the letter by PP.</p>
iv.	<p>Free Silica needs to be analyzed and documented by carrying</p>	<p>Free Silica has been analyzed by NABL</p>

	<i>fresh study from an accredited laboratory</i>	<i>accredited lab and attached as Annexure 4 to the letter by PP.</i>
<i>v.</i>	<i>PP submitted that as part of the existing EC condition, PP made plantation, however, the PP was unable to show/explain the same in KML. PP needs to submit the revised KML file with plantation area and their corresponding coordinates. PP also requires to submit the details of plantation carried out in safety zone and along the lease boundary. PP needs to submit the photographic images of the same. In addition, PP requires to show the compliance status of the existing EC condition (xvi).</i>	<i>Details of plantation carried out in safety zone, overburden dump, other areas in the ML area, photos of plantation and compliance of existing EC condition is attached as Annexure 5 to the letter by PP. KML file showing the plantations in different areas as mentioned above attached.</i>
<i>vi.</i>	<i>PP needs to submit details of total excavation (in same unit) including mineral, overburden (OB), interburden (IB), side burden (SB) and waste/topsoil production and etc.</i>	<i>Total excavation is 28.0 LTPA including mineral (6.0 LTPA), and overburden (OB) (22.0 LTPA).</i>
<i>vii.</i>	<i>The site specific wildlife conservation plan is approved on 18.11.2015, PP needs to submit compliance status of the same from the Competent Authority and also submit the revised approved site specific conservation plan as the proposal for expansion in production.</i>	<i>Compliance status given by DFO Cutback on Approved site-specific conservation plan is attached as Annexure 6 to the letter by PP.</i>
<i>viii.</i>	<i>PP needs to evaluate the performance of ETP and submit the details of corresponding</i>	<i>Details of ETP and sludge management is attached as Annexure 7 to the letter by PP.</i>

	<i>analytical data along with details of sludge management plan for ETP sludge.</i>	
ix.	<i>PP needs to submit details of steps taken for management of surface run off specifically mitigative measures.</i>	<i>Management of surface runoff along with mitigative measure is attached as Annexure 8 to the letter by PP.</i>
x.	<i>PP submitted that water requirement is 3500 KLD, the Committee is of the view that the water requirement is very high. So, the Committee asked the PP to submit water budget for the same and also futuristic approach on decreasing the water requirement as well as rainwater harvesting.</i>	<i>Total water requirement for the project after recalculation is 1240 Cu.m / Day (During peak summer season), in which 240 Cu.m / day for domestic uses and 1000 Cu.m for industrial uses. The freshwater requirement is only 240 Cu.m/day which is only for domestic uses and water requirement for industrial uses i.e. 1000 Cu.m will be met from mine seepage water after treatment. Once underground operation starts, the water requirement will be reduced by 50 percent for industrial uses. Further after full fledged underground operation there will be very less water requirement for sprinkling (dust suppression) to the OB dump, mine haulage roads and mine benches. Details are given at Annexure 9 to the letter by PP.</i>
xi.	<i>PP submitted compliance to the ToR conditions which are generic and not adequate. PP needs to submit the revised compliance status of the ToR conditions.</i>	<i>Revised compliance status with adequate details has been prepared and is attached as Annexure 10 to the letter by PP.</i>
xii.	<i>PP needs to revise the CER budget as per the provisions of OM No. F. No. 22- 65/2017-IA-III dated 01 May 2018.</i>	<i>Revised CER budget as per the provisions of OM No. F. No.22-65/2017-IA-III dated 01.05.2018 attached as Annexure 11 to the letter by PP.</i>
xiii.	<i>PP needs to submit copy of CGWA approval and compliance status of conditions especially on installation of</i>	<i>CGWA approval is attached as Annexure 12 a to the letter by PP. Compliance status of installation of piezometers is attached as Annexure 12 b to the letter by PP.</i>

	<i>peizometers at suitable location for monitoring.</i>	
<i>xiv.</i>	<i>PP needs to submit details of environment management cell, performance including monitoring and their educational backgrounds.</i>	<i>Details of Environment Management Cell, performance including monitoring & educational backgrounds is attached as Annexure 13 to the letter by PP.</i>
<i>xv.</i>	<i>PP needs to submit details of underground mining including precautionary steps planned and other safety procedures as per the government guidelines.</i>	<i>Details of underground mining including precautionary steps planned and other safety procedures as per the government guidelines is given at Annexure 14 to the letter by PP.</i>
<i>xvi.</i>	<i>PP requires to submit reasons for proposing common dumping along the lease boundary with M/s. BAL. PP needs to show the current dumping yard with coordinates and details of handling of dump, if any. In addition, PP needs to submit the copy of permission obtained from Directorate General of Mines Safety vide letter No. BBR-JA/CH-2 & 12/P-111 (3)/2017/235-136, dated 15/02/2017.</i>	<i>Reasons for common dumping and permission letters from DGMS is attached as Annexure 15 to the letter by PP. KML file showing the common dumping attached.</i>
<i>xvii.</i>	<i>PP requires to submit the copy of document for NPV payment.</i>	<i>Copy of document for NPV payment is attached as Annexure 16 to the letter by PP .</i>
<i>cviii.</i>	<i>PP submitted that change in technology from opencast to combination of opencast and underground mining, however, there is no change in the mining plan. Therefore, the Committee asked the PP to submit a letter in the form of affidavit that</i>	<i>Affidavit dated 18.12.2019 is attached as Annexure 17 to the letter by PP.</i>

	<i>there is no change in the mining plan.</i>	
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4. In addition to above, the Committee also deliberated on the other issues such method of mining, backfilling plan, water consumption, compliance of standard ToR for beneficiation, change in the mining plan if any, cumulative impact due to mining and backfilling activities etc. PP also submitted certain information in this regard through email but it has observed the reply submitted in not satisfactory as all the issues are not addressed properly and the same needs to be upload online on PARIVESH Portal for public viewing. The Committee therefore **deferred** the proposal for want of following information:

- a) Compliance of Standard term of reference as published by Ministry for beneficiation activity.
- b) Status of extension of mining lease copy of letter if any issued in this regard needs to be submitted.
- c) The Committee is of the view that PH was conducted on 23.06.2017 and the modified mining plan that was placed in PH was approved on 23.09.2016. Thereafter, two review of mining plan was approved and PP needs to submit whether there are any changes made in the recently approved mining plan or not. The copy of recent mining needs to be uploaded on PARIVESH and changes if any made with justification needs to be submitted. The land use mentioned at conceptual stage needs to be submitted.
- d) PP in the mining plan is mentioned that mined out area of band-1 will be backfilled, but it is not clear from the same whether the IBM has allowed dumping over the mineralised area. Further in EIA Report the impact due to additional material handling for backfilling is not mentioned. It is not clear whether the dump will be re-handled or waste material from opencast and underground will be directly backfilled in the band-1. Therefore, a letter in this regard that IBM has approved the proposal of backfilling considering the fact that the band-1 is having mineral at the time of backfilling. In addition to this cumulative impact due to all the activities needs to be submitted.
- e) In the EC granted on 24.12.2002 it has mentioned that no forest land is involved but now PP has submitted that there is forest land for which Forest Clearance was obtained on 22.06.2018. The reason for change in land classification needs to be submitted.
- f) PP shall ensure that the document uploaded on the Parivesh Portal is illegible, it has found that some of the documents including past production details authenticated by DMG is not illegible.

2.2 Proposal for change in excavation & dispatch pattern of Bolani Iron Ore Mine [ML Area 1321.45 ha] of M/s Steel Authority of India Limited,

located at Village Bolani, Tehsil- Barbil, District Keonjhar, Odisha [File No. J11015/418/2008-IA. II(M); Proposal No: IA/OR/MIN/139447/2020, Consultant: M/s MECON LTD]-EC Consideration under Para 7(ii) of EIA 2006.

1. The proposal of M/s. Steel Authority of India Limited is for grant of EC under para 7(ii) of EIA Notification 2006 (as amended) for change in excavation & dispatch pattern by increasing excavation and despatch of iron ore fines from existing Fines Dumps up to 3.0 MTPA (from present 0.5 MTPA) and Modification of Mining parameters including updating of reserves and waste generation keeping total production within approved EC capacity of 12 MTPA. Bolani Iron Ore Mine (1321.45 HA) is located at Villages Bolani & Balagoda and Karo Reserve Forest (R.F.) in Barbil Tehsil, Champua Sub-division, Keonjhar District of Odisha. The lease area forms part of Survey of India topo-sheet no: 73 F/8 (F45H/8) and is bounded by latitude 22° 05'11.65848" N & 22° 07'46.2869"N & longitudes 85° 16'52.81330" E – 85° 20'13.85260"E.

2. The PP applied online vide proposal No. IA/OR/MIN/139447/2020 dated 31.01.2020 under para 7(ii) of EIA Notification 2006 (as amended) and submitted Form-2, approved Review of Mining Plan, letter of Intent(LOI) along with the Lease deed execution and Order of Ministry of Mines. The proposal was earlier placed in EAC meeting held during 26-27 February, 2020.

3. PP submitted that Bolani Ore Mines comprises of two adjacent leases; Bolani 5.1 Sq. Mile Lease (area: 1321.45 ha) and Bolani 6.9 Sq. Mile Lease (area: area: 1786.74 ha). 5.1 Sq. Mile lease is the main iron ore mining lease. 6.9 Sq. Mile Lease is a manganese ore mining lease. The two leases are adjacent to each other and have common infrastructure such as Railway siding, loading plant, crushing & screening, conveyors, power-lines, magazine, township, office, guest house, hospital, roads, Tailing Dam etc. The lease comprises of 1312.86 ha Forest Land and 8.59 ha Non-Forest Land under the villages of Bolani and Balagoda. The 5.1 Sq. Mile ML was granted for 30 years with validity from 11.04.1960 to 10.04.1990. The lease has been renewed up to 09-04-2030 vide express order of Govt. of Odisha, Steel & Mines Department. Stage-II Forest clearance exists for the total forest land within the Mining Lease.

4. PP submitted that previously EC was obtained vide letter no. J11015/418/2008-IA.II(M) dated 21st December, 2012 for increasing the production from the mine from 5.65 million tonnes per annum (MTPA) to 12.00 MTPA of Iron Ore (ROM), increasing the beneficiation plant's capacity to 12 MTPA and installing a new 4 MTPA pelletisation plant.

5. Project Proponent informed that Ministry of Mines, Gov. of India have noted in their Order F.No. 16/30/2019-M.VI dated 16th September, 2019 that vast stocks of slimes and sub-grade ore are lying at mine pit heads of captive mines of SAIL and are liable to cause environmental hazards. Accordingly, Ministry of Mines, Govt. of India have accorded permission for selling of these low grade mineral (tailings and sub-grade ore) in the open

market to maximise the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making and to protect the environment such that mineral can be exhausted and environmental hazards can be mitigated. The disposal of such stockpiles would enhance the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making. Further, Ministry of Mines, Govt. of India has also directed concerned State Governments to allow SAIL to sell fresh iron ore up to 25% of total previous year production to mitigate the risk of possible shortage of iron ore on account of expiry of mining leases pertaining to merchant mining on 31.03.2020.

6. PP submitted that due to the above reasons, it has proposed the following amendments:

- i. Excavation of iron ore from Bolani 5.1 Sq. Miles Mining Lease at 12 MTPA including a provision for excavation of maximum up to 3 MTPA iron ore fines from the existing Fines Dumps for selling in the open market. The excavated iron ore fines will be dispatched through rail/road or road & rail combination. 1.0 MTPA of excavated fines will be dispatched from SAIL's Bolani railway siding by transporting through internal road over 0.8 km. About 1.0 MTPA of fines will be dispatched from Bolani Public Siding by transporting through public road over about 2 km and 1 MTPA by public road over about 8 km to Barbil Public Siding or beyond by NH (NH – 520) as per prevailing condition. Since pellet plant is yet to be installed, option for dispatching of the excavated fines to external pellet conversion agencies and use the converted pellets by SAIL plants is also proposed.
- ii. Installation of mobile in pit crushing and screening plants of capacity up to 300 TPH, one no. in each D, Panposh, F, G and B & C Quarry for achieving the maximum production within the approved EC capacity.
- iii. Updation of mineral reserves from 137.72 MT (with life of mine 12 years) to 315 MT (with life of mine 26 years), which has been established through exploration.
- iv. Updation of waste quantity after detailed exploration from 13.729 Mm³ to 56.042 Mm³ till the end of conceptual period as per the updated reserves. Accordingly, change in land use area under OB dumping from 38.02 ha to 64.81 ha till conceptual period to accommodate additional quantity of waste.

7. The Project Proponent reported that the Scheme of Mining for the period 01.04.2015 to 31.03.2020 was approved by IBM, Bhubaneswar vide letter no. MS/FM/31-ORI/BHU/2014-15, dated 03.08.2015 and subsequent modification of Review of Mining Plan for the period 2018-2020 approved by IBM, Bhubaneswar vide letter no. MSM/FM/17--ORI/BHU/2018-19/1086, dated 06.08.2018 valid up to 31.03.2020. The review of the mining plan for the period 2020-2025 has already been approved by IBM vide letter no. RMP/A/19-ORI/BHU/2019-20 dated 13.11.2019 covering the above

proposed changes. Consent to Operate has been obtained from OSPCB, Bhubaneswar vide letter no. IND-I-CON-242 dated 28.03.2019 which was valid till 31.03.2020 and subsequently it has been renewed upto 31.03.2021 by OSPCB vide letter No. 3840/IND-I-CON-242, dated 27.03.2020. Certified Compliance report of Environmental Clearance has been obtained from the Regional Office, MoEF&CC, Bhubaneswar vide letter no. 101-570/09/EPE dated 29.01.2020. Stage-II Forest clearance exists for the total forest land within the Mining Lease.

8. Project Proponent submitted that in order to assess the likely impacts, if any, on the local road infrastructure and air quality of the area, due to the proposed above mentioned changes in the scope of work, specific environmental studies viz., Traffic Density Study and Air Quality Impact Prediction Study have been carried out and incorporated in the enclosed addendum to EIA/EMP Report. It has been observed that adequate road capacity is available to undertake additional traffic load due to iron ore transportation by road from fine dumps located in 5.1 Sq. Mile lease as proposed. Further, the air quality impact predication also shows the quality of air within the permissible limit. The proposed liquidation of fines will not only result in effective utilization of these low grade minerals, but also eliminates environmental hazards associated due to storage of fines besides meeting the iron ore demand during scarcity period of the country. PP reported that the Installation of in-pit crushing and screening plant (fixed/mobile) of capacity up to 300 TPH, one no. in each D, Panposh, F, G and B & C Quarries for achieving the maximum production (Earlier provision was for Installation of pit head crushing plant at D & Panposh Quarries) within the approved EC capacity and Updation of mineral reserve from 137.72 MT (with life of mine 12 years) to 315 MT (with life of mine 26 years), which has been established through the exploration. Updation of Waste generation quantity after detailed exploration from 13.729 Million m³ to 56.042 Million m³ till the end of conceptual period.

9. The Project Proponent has reported that Subsequent to the judgment of Apex Court dated 02.08.2017, the Governments of Odisha vide letter dated 23.10.2017 issued a demand notice for payment of Rs. 47,49,46,999/-. Against this demand, SAIL had filed a Writ Petition bearing WP (C) No-24279/2017 before High Court of Orissa at Cuttack. The matter was heard and Hon'ble High Court had passed the stay order on 04.04.2018 & matter is sub-judice.

10. The proposal was appraised in the 14th EAC Meeting held during February 26-27, 2020. Based on the discussion held and document submitted the Committee deferred the proposal for want of a) PP need to conduct the dump stabilisation studies, b) Transport scenario to be properly calculated and resubmitted, c) Traffic density and road carrying capacity to be calculated, d) Excavation plan to be properly delineated, d) Mass balance to be prepared and quantitative despatch scenario for lump, fines to be submitted, e) impact on pollution load (increase/decrease) due to proposed excavation & dispatch plan needs

to be submitted. The Committee is of the view that proposal may only be consider after the submission of above information, and site visit by EAC Members & MoEF&CC officials.

11. Based on the ADS raised above, PP vide its letter dated 29.05.2020 has submitted the requisite information/clarification with a request as follows:

“During above EAC meeting, honorable committee members suggested for a site visit by EAC members and MOEF&CC, GoI, New-Delhi to understand the proposed logistic arrangement for selling of fines as the present proposal involves despatch dump fines by rail or road or both rail & road. Accordingly, as desired by EAC, the desired information has been reviewed by SAIL and its consultant MECON with the help of internal arrangement and technical information related to dump stabilization studies, Transport scenario, Traffic density & toad carrying capacity, Excavation plan, Mass balance & quantitative dispatch scenario for lump/fines and Impact on pollution load (increase/decrease) due to proposed excavation & dispatch plan have been reassessed. All information is properly delineated in the attached report. In the present lock down situation across the country, to take preventive measures to prevent spread of COVID - 19, we would like to request the committee to reconsider the proposed visit plan to mines at this juncture.

It may be appreciated that Bolani Ores Mines of SAIL is located in the tribal dominated area in Keonjhar District of Odisha and is playing major role in improving the socio-economic development of the area. The proposed excavation and despatch of the fines from old fines dumps will not only help in effective utilization of the low grade resources but also help in elimination of environmental hazards associated with storage of the fines.”

Further PP has submitted the Point wise reply to additional details sought as follows:

a) Point 1-PP need to conduct the dump stabilization studies.

Bolani Ores Mines comprises of two adjacent mining leases; 5.1 Sq. Mile Mining Lease (over an area of 1321.45 ha for iron ore) and 6.9 Sq. Mile Mining Lease (over an area of 1586.36 ha for Manganese ore) and has been working for production and despatch of iron ore since 1960. The low grade iron ore fines generated from the 5.1 Sq. Miles Mining Lease (ML) till mid-eighties (before installation & commissioning of fines washing plant and poor off-take of fines) was stacked near the railway siding coming inside both 5.1 Sq. Miles ML and 6.9 Sq. Miles ML. Since installation of fines washing plant / beneficiation plant at Bolani, generated low grade fines are being washed and being dispatched to Steel plants.

There are five old iron ore fines dumps containing about 7.073 million tonnes and lying unutilized since long. To eliminate environmental hazards associated with the storage of fines as well as for effective utilization through beneficiation & pelletisation, Ministry of Mines, Govt. of India vide order dated

16.09.2019 allowed sale of the low grade iron ore fines lying at captive mines of SAIL. In this regard, the old iron ore fines dump(s) at Bolani Ores Mines have been jointly inspected and surveyed the quantities stacked in each of the fines dumps by officials from Dept. of Mines & Geology, Govt. of Odisha, Indian Bureau of Mines, Bhubaneswar & SAIL during February, 2020. The details of these iron ore fines dumps at the Bolani Ores Mines are given in the following tables.

Table 1- Iron Ore Quantities stacked in Dumps at Bolani Ores Mines

Sl. No	Dump	Quantity In fines dump (in million tonnes)		
		5.10 sq. mile ML	6.90 sq. mile ML	Total
1	Dump 1	1.197	3.066	4.263
2	Dump 2	0.898	1.057	1.955
3	Dump 3 (Near DH-5)	0.556	-	0.556
4	Dump 4 (Near MRS)	0.212	-	0.212
5	Dump 5 (Near MRS)	0.087	-	0.087
	Total	2.950	4.123	7.073

Table 2- Size of Dumps at Bolani Ores Mines

Sl.	Dump	5.10 sq. mile ML			6.90 sq. mile ML		
		Bottom Area (m ²)	Max. Height (m)	Avg. Height (m)	Bottom Area (m ²)	Max. Height (m)	Avg. Height (m)
1	Dump 1	24965	35	25	82765	35	34.6
2	Dump 2	19904	28	28	27779	28	28
3	Dump 3	26328	25	17.5	-	-	-
4	Dump 4	4196	14	13.2	-	-	-
5	Dump 5	16123	10	8.2	-	-	-

It can be observed from the above tables that all these dumps are very low height ranging from 10 m to 35 m occupying over areas ranging from 0.4 ha to 10.7 ha. A map showing plans and sections of the iron ore fines dumps at Bolani Ores Mines is also given.

The iron ore fines dump(s) are very old and stable for more than 3 decades. In order to stabilize the fine dumps and control of erosion, the following measures have been undertaken under the guidance and association with of IIT Kharagpur:

- Plantation with grasses / vetiver over these dumps.
- Terracing, grass seeding and application of coir matting over steep dump slopes
- Retaining walls and garland drains with settling pits to control the surface runoff

PP has further submitted Photographs showing the dump stabilization

measures at fines dumps of Bolani Ores Mines.

All the aforementioned measures and lying unutilized since more than three decades, the iron ore fines dumps are stable and intact. Under the instant proposal, it has been proposed to excavate the iron ore fines from the top of the dumps by deploying small capacity excavators and dumpers / trippers combination maintaining proper height & width of benches without involving drilling and blasting for selling in open market or dispatch to external pellet conversion agents. Further, it has been planned to excavate the fines up to 3 MTPA and liquidate the entire old fines dump at the earliest.

It can be observed from the above photographs and filed positions that the iron ore fines dumps at Bolani Ores Mines have been stable over more than three decades and no sign of slope failure has been observed till date. Hence, keeping in view of the stable dumps having low height ranges from 10 m to 35 m, excavation of fines from the top slicing method with proper benching by deploying small capacity excavators and trippers can be done safely without any slope failure issues. During the process of excavation, due care will be taken towards abatement of environmental conditions and ensure safety in working.

b) Point 2- Transport scenario to be properly calculated and resubmitted

In the present proposal, it has been proposed that 3 MTPA fines will be excavated from the old fines dumps and dispatched for selling in open market or pellet conversion. 1 MTPA of the excavated fines will be transported through SAIL's own roads to the existing mechanized loading facilities at nearby SAIL's Bolani Railway Siding for final dispatch by rail. The rest 2 MTPA will be dispatched by 18 t tipper trucks up to Public Sidings at Bolani / Barbil and thereafter by rail or directly by road as decided by the successful buyers / pellet conversion agencies. The following roads will be used for transport of excavated fines from the Fines Dumps:

- SAIL's own internal road from fines dump to SAIL's Bolani Rly Siding
- Public Road from Bolani-Barbil PWD Road up to W.Hutting Chowk
- Public Road to Bolani Public Siding
- Public Road from Bolani to Barbil Rly. Siding & beyond

PP has submitted the photographs of the Road from Bolani- Barbil PWD Road up to W.Hutting Chowk and Public Road from Bolani to Barbil Rly. Siding & beyond. PP has further submitted the proposed ore transport routes from the fines dumps to SAIL's Bolani Siding and Bolani Public Siding as well as route to Barbil are shown.

It has been planned to transport the excavated fines from the dumps for about 309 days in a year and 12 hours per day. The expected traffic scenario over the proposed ore transport roads for transport of the excavated fines under

the present proposal are given in the following tables.

Table 3 -Expected Traffic Over internal road leading to SAIL's Bolani Siding

Transportation of fines from Fines Dumps to SAIL's Bolani Siding	:	1.0 million tonnes per annum
No. of working days per annum	:	309 days
No. of working hours per day	:	12 hrs
Length of transport road from Dumps to SAIL's Bolani Railway Sidings	:	about 0.8 km
Quantity of fines transportation per day	:	About 3250 TPD
Capacity of trucks to be deployed for transportation of excavated dump fines	:	18 t
No. of truck trips per day	:	180 per day (one way) 360 per day (both ways)
Hourly traffic per hour	:	30 per hour (both ways)

Table 4 -Expected Traffic Over Bolani-Barbil PWD Road upto W.HuttingChowk

Transportation of fines from dumps over the road	:	2.0 million tonnes per annum
No. of working days per annum	:	309 days
No. of working hours per day	:	12 hrs.
Length of transport PWD Road upto W Hutting Chowk	:	1.5 km
Type of Road	:	Two lane block topped
Quantity of fines transportation per day	:	About 6,500 TPD
Capacity of trucks to be deployed for transportation of excavated fines	:	18 t
No. of truck trips per day	:	360 per day (one way) 720 per day (both ways)
Hourly traffic per hour	:	60 per hour (both ways)

Table 5-Expected Traffic Over Road from W Hutting Chowk to Bolani Public Siding

Maximum expected transportation of fines to Bolani Public Siding	:	1.0 million tonnes per annum
No. of working days per annum	:	309 days
No. of working hours per day	:	12 hrs.
Type of Road	:	Intermediate lane
Length of transport road from Bolani-Barbil Road near W.Huttings to Bolani Public Siding	:	1.0 km
Quantity of dump excavation & transportation per day	:	About 3250 TPD
Capacity of trucks to be deployed	:	18 t

No. of truck trips per day	: 180 per day (one way) 360 per day (both ways)
Hourly traffic per hour	: 30 per hour (both ways)

Table 6–Expected Traffic Over Bolani-Barbil Road up to Barbil Rly Siding Or beyond

Expected transportation of fines to Barbil Public Siding or further by road	: 1.0 million tonnes per annum
No. of working days per annum	: 309 days
No. of working hours per day	: 12 hrs.
Type of Road	: Two lane block topped
Length of transport road from Bolani-Barbil Road near W.Huttings to Barbil Rly Siding	: 8 km
Quantity of dump excavation & transportation per day	: About 3250 TPD
Capacity of trucks to be deployed for transportation of dump fines	: 18 t
No. of truck trips per day	: 180 per day (one way) 360 per day (both ways)
Hourly traffic per hour	: 30 per hour (both ways)

c) Point 3- Traffic density and road carrying capacity to be calculated

The major impact on public transport infrastructure is from the proposed dispatch of 2 MTPA from the Dumps to Public Sidings at Bolani or Barbil. The fines from the dumps to the tune of 2 MTPA will be dispatched in 18T capacity tipper trucks upto Public Sidings at Bolani or Barbil and thereafter by rail or directly road beyond Barbilas per the suitability of the successful bidders/buyer or pellet conversion agents. The existing traffic levels, carrying capacity of the roads and expected increase from the proposed transport of fines over the public roads are as follows:

Bolani – Barbil Road (Two Lane Black Topped Road)

As per IRC:64 Guidelines for Capacity of Roads in Rural Areas”, the recommended design service volume for two lane roads on plain terrain with low curvature (<510/km) is 15000 Passenger Car Units (PCUs) per day and the reduction factor for 3.5 m wide lane and shoulder width of 1.2 m is 0.92. The Bolani – Barbil Road can be classified under this category. Accordingly, the recommended design service volume comes down to 13800 PCUs/day. The present average traffic on the Bolani – Barbil Road is 5290 PCUs/day with max of 7425 PCUs/day. Even considering the maximum existing traffic, the road has additional capacity of 6375 PCUs/day i.e. 2125 trucks/day can ply on the road. Therefore, even assuming entire 2 MTPA is transported to

Barbil (i.e. worst scenario), the expected increase in traffic will be 720 trucks per day i.e. 2160 PCUs per day. Therefore, the road will be able to handle the additional truck traffic to & from Bolani.

Even in the worst scenario, the transport of fines from Bolani will take place over 12 hours during day time, the capacity of the road may be reduced to 6900 PCUs over 12 hours. The traffic as measured over 0600 – 1800 hrs varied from 1762 to 4549 PCUs (Average ~2985 PCUs). The resultant traffic on the Bolani-Barbil Road due additional load from transport 2 MTPA fines will thus increase to ~6710 PCUs maximum over 12 hours which is still within the recommended design service volume. Therefore, the road will be able to handle the additional truck traffic to & from Bolani.

Public Road from W Hutting to Bolani Public Siding (Intermediate Lane)

The road going to Bolani Public Siding is an Intermediate Lane Road. Accordingly, as per IRC:64, the recommended design service is 5520 PCUs/day. The traffic on this road varies from 769 to 3735 (average: 1886) PCUs/day. Even in the worst scenario, the transport of fines from Bolani will take place only over 12 hours during day time, the capacity of the road may be reduced to 2760 PCUs over 12 hours.

The approach road to Bolani Public Siding is a short stretch of intermediate lane road which is used by private operators to approach Bolani Public Siding as and when required. It is expected that maximum about 1 MTPA may be transported from the Bolani Public Siding, which is expected to increase 180 trucks per day i.e. 1080 PCUs per day. The traffic as measured over 0600 – 1800 hrs varied from 591 to 1453 PCUs (Average ~783 PCUs). The resultant maximum traffic will be 2533 PCUs during 0600 – 1800 hrs which is still within the recommended design service volume. Therefore, the road will be able to handle the additional truck traffic to & from Bolani.

d) Point 4- Excavation plan to be properly delineated.

Bolani 5.1 Sq. Mile ML of Bolani Ores Mines is spread over an area of 1321.45 ha. The Mining Lease comprises of F, G, D, Panposh and B&C mining blocks along with Ore Processing plants, material dispatch facilities (loading plant along with railway siding) and other ancillary infrastructures existing within SAIL's adjoining Bolani 6.9 Sq. Mile ML. MoEFCC granted environmental clearance for 5.1 Sq. Miles ML of Bolani Ores Mines vide their letter no. J-11015/418/2008-IA.II(M) dated 21st December, 2012 for annual production capacity of production of 12 MTPA (which includes excavation of 0.5 MTPA fines from fines dump) along with setting up of beneficiation plant of 12 MTPA capacity and a palletisation plant of 4 MTPA capacity.

The Bolani Ores Mines is open cast fully mechanized mines and fall under Category-A (Fully Mechanized category) as per the IBM guidelines. Mining is being done by conventional open cast mining method with shovel dumper combination as per the calendar plan of excavation as approved in the Review of Mining Plan.

In compliance to directions of Ministry of Mines, GoI for effective use of these low grade mineral, Bolani Ores Mines has planned for excavation of fines from old Fines Dumps maximum up to 3.0 MTPA and dispatch through rail / road or road & rail combination for selling in open market / dispatch to external pellet conversion agents keeping total production within the approved EC limit of 12.0 MTPA. The planned and IBM approved excavation plan during 2020-21 to 2024 -25 from 5.1 Sq. Miles Mining Lease of Bolani Ores Mines is given in the following table.

Table 7- Approved Excavation Plan of Bolani Ores Mines (5.1 Sq. Miles Lease)

Year	ROM (million tonne)			Excavation of fines from old Fines Dump (max.)(million tonnes)	Total excavation (ROM+Fines) (million tonnes)	Overburden (million m ³)
	Ore	Sub-grade	Total ROM			
2020 - 21	6.49	2.43	8.92	3.0	11.92	1.80
2021 - 22	8.95	3.02	11.97	-	11.97	1.04
2022 - 23	11.83	0.13	11.96	-	11.96	0.76
2023 - 24	9.95	2.04	11.99	-	11.99	0.80
2024 - 25	9.15	2.78	11.93	-	11.93	0.88

It is submitted that it has been planned to excavate and dispatch the about 3 MTPA fines stacked in the 5.1 Sq. Mile lease during 2020-21. However, in case the planned 3 MTPA iron ore fines from the Fines Dump will not be excavated completely / partially due to certain unavoidable reasons, the remaining left out iron ore fines from Fines Dumps in the 5.1 Sq. Miles Lease will be excavated and dispatched during subsequent years keeping the total iron ore production i.e. ROM from mines & fines from the Fine Dumps within the EC capacity of 12 MTPA.

e) Point 5- Mass balance to be prepared and quantitative dispatch scenario for lump, fines to be submitted: -

Mass balance for quantitative dispatch scenario for lump, fines from in suite reserves and fines from fines dumps before and after the present proposal shall be as follows:

Table 8 – Comparative Mass balance as per Original EC Configuration and proposed excavation & dispatch of fines

Attribute	As per Original EC	As per Present Proposal	Remarks
Lease Area	1321.45 ha	1321.45 ha	No Change

Production Capacity	12 MTPA (including 0.5 excavation from fines dumps)	12 MTPA (including excavation of fines from fines dumps maximum up to 3 MTPA)	No Change in total iron ore production but change in product mix
Excavation of fines from fines dumps	0.5 MTPA	3 MTPA	Increase by 2.5 MTPA till liquidation of fines
Method of Mining	Conventional Open Cast Mining by Shovel-Dumper Combination and including drilling & blasting for ROM. Only excavation without drilling & blasting for fines from the Fines Dumps.	Conventional Open Cast Mining by Shovel-Dumper Combination and including drilling & blasting for ROM. Only excavation without drilling & blasting for fines from the Fines Dumps.	No Change
OB Generation	1.12 Mm ³ /Year	0.84 Mm ³ /Year	Reduction by up to 25% till liquidation of fines
Production	Processed Ore : Iron Ore Lumps + Fines ~10 MTPA(Lump proportion: ~ 30%)	Processed Ore : Iron Ore Lumps + Fines ~ 7.5 MTPA(Lump proportion: ~ 30%) & low grade fines: 3 MTPA (max.)	Change in product mix till liquidation of fines from the Fines Dumps.
Explosives Consumption	1500 ton/yr	1200 ton/yr	Up to ~25% reduction till liquidation of fines
Make-up water requirement for ore beneficiation	8000 m ³ /day	6000 m ³ /day	
Area covered by exposed Fines dumps in 5.1 Sq. Miles Lease	9.15 ha	-	After liquidation of fines, reduction in generation of dust and surface runoff
Mode of material dispatch of ore	100 % by rail	Processed lumps + fines by rail. 1 MTPA excavated fines by rail & 2	Increase in road dispatch by up to 2 MTPA max till

		MTPA by road, rail and road & rail.	liquidation of fines.
PM ₁₀ Pollution Load	20.02	19.57	Decrease
<p># Less water consumption by beneficiation plant which will process less amount of ore. It is to be noted that proposed 4 MTPA Pelletisation Plant is still under planning stage.</p>			

f) Point 6- Impact on pollution load (increase/decrease) due to proposed excavation & dispatch plan needs to be submitted.

Impact prediction has been carried out for the following two scenarios

1. Configuration as per existing EC i.e. Mining of 12 MTPA of ore from pit area and transport via conveyor/rail.
2. Future scenario i.e. mining of 9.0 MTPA of ore from pit area and excavation of 3.0 MTPA of fines from the old fines dumps and transport via road/rail.

Table 9 – Input Data

Parameter	Unit	Quantity at present	Quantity in future after proposed changes till liquidation of fines
Annual Production (Mining)	MTPA	12	9 ROM + 3 fines from old fines dumps
Transport of fines from Dumps	MTPA	-	3.0 (via Road/Rail)
ROM/Waste Ratio (Avg. : 2020-21 to 2024 -25)	t/m ³	10.73	10.73
OB generation	Mm ³ /Yr	1.12	0.84
Operating Hrs	hrs/Day	24	24 (Mining) 12 (for fines transport minimum)
Days of Operation	Days/Year	309	309
Lease Area	km ²	13.2145	13.2145

Loader volume	m ³	8	8
Dumper Capacity	T	100	100
Truck Capacity (For fines transport)	T	-	18
Avg Speed of Dumper	Km/hr	15	15
Waste Moisture	%	15	15
Waste Silt Content	%	5	5
Waste Drop Height	m	2	2
Ore Moisture	%	10	10
Ore Silt Content	%	3	3
Ore Drop Height	m	2	2
Haul Road Moisture Content	%	20	20
Haul Road Silt Content	%	15	15
Mean wind Speed	m/s	2	2

After the proposed changes, in addition to mining of 9.0 MTPA of ore (existing 12 MTPA), fines from dumps shall be excavated and material will be transported by road/railways at the rate of 3.0 MTPA maximum. Total iron ore production shall remain 12.0 MTPA as per EC. The estimated PM10 pollution load from all the activities Bolani 5.1 Sq. Miles Mining operations before and after the proposed changes are as follows.

Table 7 – PM Emission Load from various Mining Activities

Sl. No.	Area/Activity	Emission rates (g/s)	
		(Existing)	(After Proposed changes)
1	Bolani 5.1 Mine including Emissions from Pits, OB Dumps and material handling	2.75	2.45
2	Emissions from haul roads during material transportation in and around mine pit	17.27	16.22
3	Excavation and Dispatch of fines form fines dumps (@3 MTPA)	-	0.91
	Total	20.02	19.57
	Net Change	-0.44 g/s (-2.22%)	

An overall decrease in PM pollution load is anticipated due to present proposal. On liquidation of fines form the old fines dumps, the environmental hazards associated with the iron ore fines dumps is likely to be eliminated.

12. The Committee is of the view that site visit could not be conducted due to COVID-19 pandemic and it may further take some time to become the situation to normal. In the meanwhile it is suggested that proposal may be consider based on the information and technical studies, so far submitted by the PP and a compliance visit/re-confirmation from RO may be done withn a year.

13. Based on the discussion held and document submitted the Committee

recommended the proposal for grant of EC under para 7(ii) of EIA Notification 2006 for the amendment in EC as proposed in para 6 above subject to the following additional specific conditions:

- i. This amendment is valid for a period of one year and the same may be extended after the site visit or compliance monitoring by Regional Office, which ever is earlier.
- ii. Fines from the tailing dam shall not be excavated during the monsoon period.
- iii. Mitigative measures proposed for excavation and transportation of mineral shall be complied with including moist and covered.
- iv. The PP shall monitor the fugitive emissions by installing at least two AAQ monitoring stations along the transportation route.
- v. The stripping ratio and total excavation for each year shall remain same as approved in the previous EC. Any change in the same is with prior approval of the Ministry.

2.3 Sub:Proposal for change in excavation & dispatch pattern of Kiriburu Meghahatuburu Iron Ore Mining project [ML Area 2897.499 Ha] of M/s Steel Authority of India Limited (SAIL), located at Villages Kiriburu, Meghahatuburu & Karampada Reserve Forest, Tehsil-Noamundi, District West Singhbhum, Jharkhand [File No. J-11015/272/2007-IA. II (M); Proposal No: IA/JH/MIN/139875/2020, Consultant: M/s MECON LTD].- Consideration of EC under Para 7(ii) of EIA 2006.

The proposal of M/s. Steel Authority of India Limited is for grant of EC under para 7(ii) of EIA Notification 2006 (as amended) for change in excavation & dispatch pattern by including excavation and dispatch of iron ore of tailings from tailing ponds of Kiriburu & Meghahatuburu Iron Ore Mine up to 2 MTPA (1MTPA each) keeping total production within approved production capacity of 16 MTPA. Kiriburu & Meghahatuburu Iron Ore Mine (amalgamated lease area 2897.499 ha) is located in Noamundi Tehsil, West Singhbhum District of Jharkhand and Karampada Reserve Forest (R.F.). The amalgamated lease under Kiriburu- Meghahatuburu Iron Ore Mine forms part of Survey of India topo-sheet no: F45H8 and F45H4 and is bounded by latitudes 22°02'10.71490" N& 22°07'51.23635" N and longitudes 85°13'51.19803" E - 85°18'11.08104" E.

2. The PP applied online vide proposal No. IA/JH/MIN/139875/2020 dated 31st January, 2020 under para 7(ii) of EIA Notification 2006 (as amended) and submitted Form-2, approved Review of Mining Plan, letter of Intent(LOI) along with the Lease deed execution and Order of Ministry of Mines. The proposal is placed in EAC meeting held during 26-27 February, 2020.

3. PP submitted that two of SAIL's captive iron ore mines are Kiriburu Iron Ore Mine and Meghahatuburu Iron Ore Mine which are located in Noamundi Tehsil, West Singhbhum District of Jharkhand and Karampada Reserve Forest (R.F.). Earlier there were 3 leases (three Leases); Lease-I, Lease – II and Lease III (having two operating Mines - Kiriburu & Meghahatuburu) which have been amalgamated into one lease with area 2897.499 ha vide letter no. Kha .Ni (Chai)-31/2005 / 1750/M/Ranchi dated 23.10.2019 of Director Mines & Geology, Jharkhand Govt. of 2897.499 ha. The two mines continue to operate separately for administrative purposes and have their own quarries, beneficiation plants, material dispatch facilities and other infrastructure. Subsequent to promulgation of MMDR Amendment Act, 2015 and Mineral (Mining by Government Company) Rules, 2015, Department of Mines and Geology, Govt. of Jharkhand has extended the lease period of amalgamated lease of Kiriburu – Meghahatuburu Iron Ore Mines up to 27.03.2030 vide letter no ख-(चई).नि.31/2005/1255/एम., Ranchi dated 30.07.2019. Subsequently, lease deed of the amalgamated lease for the period up to 27.03.2030 has been executed on 25.10.2019. PP reported that the Stage-I FC over 247.5 ha for development of South and Central Blocks was granted by MoEFCC vide F. No. 8-537/1988-FC(pt.) dated 18.10.2010 and grant of Stage – II FC is under consideration by MoEFCC.

4. PP submitted that previously Environmental Clearance was obtained vide their letter no. J-11015/272/2007-IA.II(M) dated 23rd September, 2014 for proposed expansion included Increasing ROM iron ore production capacity to 16 MTPA (8.5 MTPA from Meghahatuburu and 7.5 MTPA from Kiriburu), Expansion and Modernisation of the existing iron ore beneficiation plants capacities to 16 MTPA, Modernisation of existing material handling facilities commensurate with increased production and Slime Beneficiation Plants for iron ore recovery from tailings.

5. Project Proponent informed that Ministry of Mines, Govt. of India have noted in their Order F.No. 16/30/2019-M.VI dated 16th September, 2019 that vast stocks of slimes and sub-grade ore are lying at mine pit heads of captive mines of SAIL and are liable to cause environmental hazards. Accordingly, Ministry of Mines, Govt. of India have accorded permission for selling of these low grade mineral (tailings and sub-grade ore) in the open market such that mineral can be exhausted and environmental hazards can be mitigated. The disposal of such stockpiles would enhance the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making. Further, Ministry of Mines, Govt. of India has also directed concerned State Governments to allow SAIL to sell fresh iron ore up to 25% of total previous year production to mitigate the risk of possible shortage of iron ore on account of expiry of mining leases pertaining to merchant mining on 31.03.2020.

6. PP submitted that due to the above reasons, it has proposed the following amendments:

- i. Excavation of iron ore from Kiriburu Iron Ore Mine at 7.5 MTPA including a provision of excavation of maximum upto 1 MTPA

tailings from the tailing pond of Kiriburu for selling in the open market. The excavated tailings will be transported from the tailing pond to stacking yard and subsequently transported to SAIL's Kiriburu Railway Siding through internal roads over total 3.3 km distance and loading into wagons using payloaders for dispatch by rail.

- ii. Excavation of iron ore from Meghahatuburu Iron Ore Mine at 8.5 MTPA including a provision of excavation of maximum up to 1 MTPA tailings from the tailing pond of Meghahatuburu for selling in the open market. The excavated tailings will be transported from tailing pond to the stacking yard and subsequently transported to SAIL's Meghahatuburu Railway Siding through internal roads over total 6.5 km distance and loading into wagons using payloaders for dispatch by rail.
- iii. Despatch of excavated tailings by rail to external pellet conversion agencies for beneficiation & pelletization on conversion cost basis and consume the same in SAIL Steel Plants.

7. The Project Proponent reported that Indian Bureau of Mines, Ranchi has approved the Review of Mining Plan for the period from 2020-21 to 2024-25 vide letter no. RAN/WSB/Fe/MP-09/2019-20 dated 27.01.2020 covering the above proposed changes under amalgamated lease of Kiriburu & Meghahatuburu Iron Ore Mines. Consent to Operate has been obtained from JSPCB, Ranchi vide letter no. JSPCB/HO/RNC/CTO-5913229/2019/2540 dated 24.12.2019 which is valid from 24.12.2019 to 31.12.2024. Certified Compliance report of Environmental Clearance has been obtained from the Regional Office, MoEF&CC, Ranchi vide letter no. 103/232/09/EPE/3698 dated 31.12.2019. Out of the total amalgamated lease of 2897.499 ha, presently the mining and allied activities are confined over 726.09 ha for which Stage – II Forest Clearances have been obtained from MoEFCC.

8. PP submitted that the proposed change in scope of work does not have any significant adverse impacts on environment as revealed by the studies undertaken. Further, proposed pollution prevention control measures under the current proposal will further improve environmental quality and land use of the area and also maintain & improve socio-economic aspects of the region.

9. Project Proponent submitted that in order to ascertain the likely impacts, if any, on the road infrastructure & air quality of the area, due to the proposed changes in the scope of work, specific environmental study viz., Air Quality Impact Prediction Study have been carried out through our environmental consultant M/s MECON Ltd. and incorporated in the enclosed addendum to EIA/EMP Report. It has been noted that the air quality impact prediction shows the resultant quality of air shall be within the permissible limits specified in the National Air Quality Standards. The proposed utilization of tailings from the tailing ponds of Kiriburu & Meghahatuburu will not only result in effective utilization of these low grade minerals/mineral rejects but will also eliminate environmental hazards associated with bulk storage of tailings.

Observation of EAC: The Committee during the EAC Meeting held during 26th 27th February, 2020 was of the view that a site visit may be conducted by EAC Members and officials of MoEF&CC for ground truthing of EC Compliance.

10. Project Proponent has reported that Subsequent to the judgement of Apex Court dated 02.08.2017 in the matter of Common Cause vrs Union of India and Ors., the Government of Jharkhand issued demand of Rs. 308,36,46,118/- to Kiriburu Iron Ore Mine on 07.09.2017 and demand of Rs. 184,79,04,782/- to Meghahatuburu Iron Ore Mine on 07.09.2017 & 08.03.2018. Against this demand, SAIL had filed a Writ Petition bearing WP (C) No. 7016/2017 before Hon'ble High Court of Jharkhand at Ranchi. The matter was heard and Hon'ble High Court vide order dated 21.02.2018 referred the matter to Division Bench of the Jharkhand High Court since it involves substantial question of law. The matter is sub-judice before Division bench of the Hon'ble High Court of Jharkhand.

11. The proposal was appraised in the 14th EAC Meeting held during February 26-27, 2020. Based on the discussion held and document submitted the Committee deferred the proposal for want of a) *PP need to conduct the tailing pond stability studies, b) Transport scenario to be properly calculated and resubmitted, c) Traffic density and road carrying capacity to be calculated, d) Excavation plan to be properly delineated, d) Mass balance to be prepared and quantitative despatch scenario for lump, fines from in suite reserves and tailing pond needs to be submitted, e) impact on pollution load (increase/decrease) due to proposed excavation & despatch plan needs to be submitted. The Committee is of the view that proposal may only be consider after the submission of above information, and site visit by EAC Members & MoEF&CC officials.*

12. Based on the ADS raised above, PP vide its letter dated 15.05.2020 has submitted the requisite information/clarification with a request as follows:

“During the EAC meeting honourable committee members suggested a site visit of EAC members and MOEFCC to understand the proposed logistic arrangement as the present proposal is to dispatch of tailings by road. In this connection we iterate and assure that transportation of entire excavated tailings from Tailings Ponds to respective Railways Sidings of Kiriburu and Meghahatuburu Mines will be done exclusively through SAIL's internal roads on which there is no other traffic other than SAIL's own vehicles. Further these internal roads do not cross any public road or come anywhere near any human habitation. In the present lock down situation across the country to take preventive measures to contain spread of COVID -19, we would like to request the committee to reconsider the proposed visit plan to mines at this juncture.

It may be appreciated that Kiriburu — Meghahatuburu Iron Ore Mines of SAIL located in predominantly dominated tribal population in West Singhbhum District of Jharkhand is playing major role in improving & maintaining the socio-economic development of the area in particular and

State of Jharkhand in general. The proposed excavation and dispatch of the tailings from the Tailings Ponds will not only help in effective utilization of the low grade resources & management of the tailings ponds but also help in further improving and maintaining the socio-economic aspects of the local tribal population.”

Further PP has submitted the Point wise reply to additional details sought as follows:

g) Point 1- PP need to conduct the tailing pond stability studies.

There are two tailing ponds one each for Kiriburu Iron Ore Mine and Meghahatubutu Iron Ore Mine for storage of tailings generated from ore beneficiations plants and solid- liquid separation. The Tailing ponds areas at both the mines are shallow natural depression surrounded by natural ridges. These Tailings Ponds were constructed by means of earthen dams joining the hillocks. The details of the tailing ponds at these mines are as follows:

Tailings Pond at Kiriburu Iron Ore Mine:

The tailings generated from Kiriburu Ore Beneficiation Plant are conveyed through 12” dia and 2.4 km long pipe line by gravity to the tailings pond. The tailings pond at Kiriburu Mine was constructed during early seventies with a catchment area of 107 ha.

It is submitted that the site for the tailings pond was selected taking into account of topography, geology & catchment area. Considering local geology and soil characteristics, earthen dam was considered suitable. Since it is possible to keep on raising the dam height to a certain extent, it was planned to execute the tailings dam work in two stages to keep down the expenses and also to keep the door open for taking advantage of any technological advances for use of tailings. In 1st phase, the dam height was kept at 29 m at which about 2.4 million cubic metres tailings can be stored. In final stage the dam was proposed to be raised to a height of 40 m, when it will have an ultimate capacity of 4.35 million cubic metres.

Presently, the tailings dam is in 1st phase with a capacity to hold 2.4 million cubic metres with dam height of 29 m. As stability of the earthen dam is largely influenced by construction and process, special attention was paid while constructing the dam to safe against (i) over topping (ii) seepage (iii) sudden draw down and (iv) horizontal sliding. Further, the dam to be safe against the over topping, the height of the dam was kept at 32 m to prevent over-topping and sufficient spill-way capacity of 45 m² by taking into consideration of the maximum flood water that will flow when the reservoir is full. The salient features of the tailings dam are as follows:

Catchment area	:	1.07 sq. km or 107 ha.
Rainfall intensity (max)	:	90 mm per hour
Bottom Level	:	592 m RL
Dam Top Level	:	624 m RL

Top Length and width	:	230 m & 6 m
Capacity of the dam	:	2.4 million m ³ (about 4.8 million tonnes)
Bottom width	:	233 m
Maximum D/ s	:	143 m
Maximum U/s	:	90 m
Side Slopes (U/s and D/s)	:	1 in 2.5
Maximum depth from top:		
Upstream	:	32 m
Downstream	:	39 m

Filter blankets in successive layers were provided over foundation of tailings pond to facilitate seepage of water and to prevent erosion of soil or damage of over lying structures from uplift pressures. A spillway of 30 m x 1.5 m with a slope of 1 in 100, at 3 m free board has been provided and pitched with cement grouted laterite boulders of 300 mm thickness. A curtain wall on the lower side to avoid damage due to erosion to the lower end pitched surface is also provided.

Presently, the tailing pond is mostly filled and contains about 4.5 million tonnes of tailings. In order to increase the holding capacity of the pond and to facilitate de-silting of tailings, internal bunds have been made within the pond. Further, system for recovery and recycling of clear water from tailings pond has also been implemented. This reclamation of water is being done by setting up pumping station at tailing pond in two stages through a pipeline of 400 mm diameter pipes. Two sets of pumps with all the accessories have been installed with capacity of each set 250 m³/hr i.e., 500 m³/ hr for reclamation & recycling of clear water from the tailing pond.

Since inception the tailings dam at Kiriburu Iron Mine is very stable and further, regular maintenance of the dam & implementation of the system for clear water reclamation and recycling have been resulted in improving the stability of the dam.

Tailings Pond at Meghahatuburu Iron Ore Mine:

The tailings produced from the Meghahatuburu ore beneficiation plant are fed through a pipeline to Rang-Ring Tailings Pond by gravity about 2.4 km. The tailings pond was constructed during 1987 with a catchment area of 405 ha.

The site for the tailings pond over Rang – Ring Nalla was selected taking into account of geology & topography of the area and stable base. Considering local geology and soil characteristics, earthen dam was considered suitable. The Rang-Ring Tailings Dam was planned and designed to construct in two

stages. In the first phase, the dam height was kept at 23 m (Elevation: 528 m RL) with tailings storage capacity of 2 million cubic metres. It was planned that the dam will be further raised to its ultimate maximum height of 37 m (Elevation: 542 m RL) when it will have an ultimate additional capacity of 9.4 million cubic meters. The salient features of the Rang-Ring Tailings Dam are as follows:

Table 1 - Salient features of the Rang-Ring Tailings Dam

Parameter	1st Phase	2nd Phase
Agency of Design	Central Water Commission, New Delhi	-
Catchment area	405 ha	405 ha
Bed level	505 m RL	505 m RL
Top of the Dam	23 m height (Elevation : 528 m RL)	37 m height (Elevation : 542 m RL)
Length of the dam	474 m	650 m
Full tank level	524 m RL	539 m
Impervious fill	4,00,000 m ³	11,00,000 m ³
Capacity of the dam	2.0 million m ³	9.4 million m ³ (addl.)

Presently, the Rang-Ring tailings dam is in 1st phase with a capacity to hold 2 million m³ (4 million tonnes) with dam height of 23 m. A spill channel has been provided to discharge about 16.6 cumecs and stone protection on the bed and sides of spill channel has been provided at the entrance as well as exit.

Presently, the tailing pond is partly full and accumulated about 3 million tonnes of tailings. In order to improve stability of the dam, internal bunds have been made within the pond. Except in rainy season, there is no direct overflow through spill channel from the tailings pond, but seepage from the earthen dam exist. Since inception the Rang-Ring tailings dam at Meghahatuburu Iron Mine is very stable except seepage in few occasions, which have been successfully controlled.

It can be summarized that the Tailings dams at Kiriburu and Meghahatuburu Iron Ore It can be summarized that the Tailings dams at Kiriburu and Meghahatuburu Iron Ore Mines have been constructed over stable bed rocks and in operation since last 50 yrs and 30 yrs respectively and no sign of failure of these dams was observed till date. The mine project area falls under Seismic Zone – II as per the ISI Seismic Zone Map i.e. it experiences very low seismic intensity. Further, both these tailing dams have been designed and foundations were constructed with stability aspects considering the dam height at ultimate 2nd Phase levels. As both the tailings dams at Kiriburu and Meghahatuburu are presently under 1st Phase of operation and being maintained properly, these dams are very much safe against over topping, horizontal sliding and foundation failures. It is submitted that the present

proposal of desilting and dispatch of tailings from these tailings dams to the tune of 1 MTPA maximum from each tailings pond will not only facilitate in effective management of tailings ponds but also improve the stability of the dams and delay / completely avoid increasing height of the tailings dam up to its ultimate capacities as envisaged in 2nd Phase.

Keeping in view of the above stated aspects and presently these tailings dams are only in 1st phase of the operation, tailings pond stability studies at this juncture may not be required. Further, due to declared lockdown to take preventive measures to contain spread of COVID – 19 across India, any studies on tailings ponds stability by engaging experts agencies not be feasible. At this juncture. If however, EAC desires, the same may be carried out and submitted to MoEFCC in due course of time.

h) Point 2- Transport scenario to be properly calculated and resubmitted

The entire quantity of excavated tailings up to 1 MTPA (maximum) each from tailings ponds of Kiriburu and Megahatuburu Iron Ore Mines will transported by trucks to Kiriburu and Meghahatuburu Railway Sidings exclusively through SAIL’s internal roads on which there is no other traffic other than SAIL’s own. These roads do not cross any public road or come anywhere near any human habitation. These roads link only SAIL’s installations (tailings dam, tailings pump houses) and traffic is usually limited to few small vehicles (2-wheelers, Jeeps, Marshall, Bolero etc.) and an occasional truck. These roads were constructed and being maintained by SAIL. PP has submitted the Photographs of the internal roads leading to the Tailings Ponds (Road Leading to Kiriburu Tailings Pond & Road Leading to Meghahatuburu Tailings Pond).

Under the present proposal about 1 MTPA Tailings (maximum) each will be transported from the two tailings ponds. Excavation of tailings will be done only during the dry season i.e. October to June. It has been planned to transport the excavated tailings from the ponds for about 225 days in a year and 12 hours a day i.e. during day time only. The expected traffic scenario for transport of the tailings from the Tailings dams are as follows:

Table 2 - Expected Traffic Scenario for Tailings Transport

Maximum excavation of tailings per annum from each tailings pond	:	1.0 million tonnes
No. of working days per annum	:	225 days
No. of working hours per day	:	12 hrs.
Length of transport road from Tailings Pond to respective Railway Sidings	:	Kiriburu : 3.3 km Meghahatuburu: 6.5 km
Quantity of tailings excavation & transportation per day	:	About 4,500 TPD
Capacity of trucks to be deployed for transportation of excavated tailings	:	30 t
No. of truck trips per day	:	150 per day (one way)

	300 per day (both ways)
Hourly traffic per hour	: 25 per hour (both ways)

The tailings from the Railway Sidings of Kiriburu and Meghahatuburu Iron Mines will be finally dispatched by rail either for selling in open market or to external pellet conversion agents for beneficiation & pelletisation on conversion cost basis for captive use in SAIL Plants.

i) Point 3- Traffic density and road carrying capacity to be calculated

As discussed above, the tailings excavated from the Tailings Ponds of both Kiriburu and Meghahatuburu Iron Ore Mines will be transported exclusively through SAIL's internal roads on which there is no other traffic other than SAIL's own to Railway Sidings. These internal roads are about 6 m width with shoulder on both sides. These roads can be considered as intermediate lane roads as per the IRC guidelines. At present the traffic on the road to Kiriburu Tailings Pond may be considered max. 40 Passenger Car Units (PCUs) per day. The traffic on the road to Meghahatuburu Tailings Pond is less than 30 PCUs per day.

As per IRC:64 "Guidelines for Capacity of Roads in Rural Areas", the recommended design service volume for intermediate lane roads on rolling terrain with high curvature (>1010 /km) is 5600 Passenger Car Units (PCUs) per day. In this case since vehicle movement will take place only over 12 hours per day, the service volume per day may be considered as 2800 PCUs per day. It has been estimated that max. 300 truck trips will ply on each of the two roads per day. This is equivalent to 900 PCUs per day i.e. the resultant vehicular traffic will be hardly about a one third of the design service volume. Hence, the internal roads can easily handle the proposed transport of the tailings from the tailings ponds to Railway Sidings.

j) Point 4- Excavation plan to be properly delineated.

The Kiriburu and Meghahatuburu Iron Ore Mines have been developed in a single amalgamated iron ore mining lease over 2897.499 ha. MoEFCC had granted Environmental Clearance to Kiriburu-Meghahatuburu Iron Ore Mines for enhancement of production of iron ore from 10 MTPA to 16 MTPA (ROM) i.e. 8.5 MTPA from Meghahatuburu & 7.5 MTPA from Kiriburu and enhancement of mineral beneficiation plant from 10 MTPA to 16 MTPA.

The Kiriburu-Meghahatuburu Mines are open cast fully mechanized mines and fall under Category-A (Fully Mechanized category) as per the IBM guidelines. In compliance to directions of Ministry of Mines, GoI for effective use of these low grade mineral, SAIL has planned to excavate the tailings @ 1 MTPA (max.) from each of the two tailing ponds of Kiriburu and Meghahatuburu Iron Ore Mines for selling in open market / dispatch to pellet conversion agents keeping total production within the approved EC sanctioned capacity of 16 MTPA (ROM + Tailings) i.e. 7.5 MTPA from Kiriburu Iron Ore Mine and 8.5 MTPA from Meghahatuburu Iron Ore Mine.

The planned and IBM approved excavation plan during 2020-21 to 2024 -25 from Kiriburu and Meghahatuburu Iron Ore Mines are given in the following tables.

Table 3 - Excavation Plan from Kiriburu Iron Ore Mine (Unit: million tonnes)

Year	ROM Excavation			Excavation of tailings from Tailing Pond (max.)	Total excavation ROM +Tailings	OB + topsoil
	Ore (FE : +55%)	Sub Grade (Fe : 45 - 55%)	Total			
2020-21	4.81	1.56	6.37	1.0	7.37	3.52
2021-22	5.34	1.03	6.37	1.0	7.37	3.55
2022-23	5.16	1.20	6.36	1.0	7.36	3.05
2023-24	4.03	0.98	5.01	1.0	6.01	2.99
2024-25	4.52	1.83	6.35	1.0	7.35	3.04

Table 4 - Excavation Plan from Meghahatuburu Mine (Unit: million tonnes)

Year	ROM Excavation			Excavation of tailings form Tailing Pond (max.)	Total excavation ROM +Tailings	OB + topsoil
	Ore (FE : +55%)	Sub Grade (Fe : 45 - 55%)	Total			
2020-21	4.50	0.82	5.32	1.0	6.32	5.23
2021-22	4.60	0.64	5.24	1.0	6.24	4.64
2022-23	4.85	0.30	5.15	1.0	6.15	6.66
2023-24	4.93	0.53	5.46	1.0	6.46	6.95
2024-25	4.60	0.17	4.77	1.0	5.77	9.92

k) Point 5- Mass balance to be prepared and quantitative despatch scenario for lump, fines from in suite reserves and tailing pond needs to be submitted:-

Mass balance for quantitative despatch scenario for lump, fines from in suite reserves and tailing pond before and after the present proposal shall be as follows”

Table 5 – Comparative Mass balance as per Original EC Configuration and after the present proposal

Attribute	As per Original EC	As per Present Proposal	Remarks
Lease Area	2897.499 ha	2897.499 ha	No change

Production Capacity	16 MTPA ROM	16 MTPA (ROM + Tailings not exceeding 2 MTPA) (Within the approved EC capacity)	Total production & handling of Mineral remain unchanged.
Method of Mining	Category-A (Fully Mechanized category) as per the IBM guideline- Drilling, blasting, loading, mineral beneficiation & transportation	No change in Method of Mining form ROM. Only excavation from tailing pond for iron ore recovery for selling in open market / dispatch to outside pellet conversion agencies. No drilling & blasting for excavation of tailings from the Tailings Ponds.	Change in product mix by including excavation and despatch of tailings from tailing ponds about 2 MTPA (max.) keeping total production within approved EC capacity of 16 MTPA (7.5 MTPA from KIOM & 8.5 MTPA from MIOM) under Para 7(ii) of EIA Notification 2006.
OB Generation	~5.66 million m ³ /yr	~ 4.96 million m ³ / yr	Decrease in OB generation
Tailings Generation	~0.65 MTPA	~0.57MTPA	Decrease by 0.08 MTPA
Tailings excavation	Installation of Slime beneficiation plant & process	2 MTPA excavation for selling/pellet conversion	The disposal of tailings would enhance the availability of iron ore for the purpose of beneficiation and palletisation and useful for iron & steel making. Also, reduce the environmental load and effective management of Tailings Ponds.

Excavation: Tailings	0.6 MTPA	2 MTPA	Increase by 1.4 MTPA
Production	Processed Ore : Iron Ore Lumps + Fines ~13 MTPA (Lump proportion: ~ 20%)	Processed Ore : Iron Ore Lumps + Fines ~11 MTPA (Lump proportion: ~ 20%) & Tailings: 2 MTPA (max.)	Change in product mix.
Explosives Consumption	2430 t/yr	2125 t/yr	Decrease by 305 t/yr
Peak Water Consumption	11540 m ³ /day	10580 m ³ /day	Decrease by 960 m ³ /day #
Mode of material despatch	100% by railway wagons	100% by railway wagons	No change
PM ₁₀ Pollution Load	19.22 g/s	18.70 g/s	Decrease
<i># Less water consumption by beneficiation plants which will process less amount of ore</i>			

1) Point 6- Impact on pollution load (increase/decrease) due to proposed excavation & dispatch plan needs to be submitted.

Impact prediction has been carried out for the following two scenarios-

1. Configuration as per existing EC i.e. Mining of 16 MTPA of ore from pit area and transport via road /conveyor/rail.
2. Proposed Scenario i.e. mining of 14 MTPA of ore from pit area and excavation of 2.0 MTPA (max.) of tailings from tailings pond and transport of the same via road/rail.

Table 6 – Input Data

Parameter	Unit	Quantity as per the present EC	Quantity in future after proposed changes
Annual Production (Mining)	MTPA	16	14 ROM + 2 MTPA Tailings
Tailings transport	MTPA	0	2.0 (via Road/Rail)
ROM/Waste Ratio (Avg. 2020-21 to 2024-25)	t/m ³	2.82	2.82
OB	Mm ³ /Yr	5.66	4.96

Operating Hrs	Hrs/Day	24	24 (Mining) 12 (for subgrade transport)
Days of Operation	Days/Yr	300	300 (Mining) 225 (for subgrade transport)
Lease Area	km ²	28.972	28.972
Loader volume	m ³	8	8
Dumper Capacity	T	100	100
Truck Capacity	T	-	30
Avg Speed of Dumper	km/hr	15	15
Waste Moisture	%	15	15
Waste Silt Content	%	5	5
Waste Drop Height	m	2	2
Ore Moisture	%	10	10
Ore Silt Content	%	3	3
Ore Drop Height	m	2	2
Haul Road Moisture Content	%	20	20
Haul Road Silt Content	%	15	15
Mean wind Speed	m/s	2	2

After proposed changes, in addition to mining of 14 MTPA of ore (existing 16 MTPA), Tailings pond shall be excavated and material will be transported by road/railways at the rate of 2.0 MTPA maximum (1.0 MTPA max. each from Kiriburu and Meghahatuburu tailings ponds). Total iron ore production shall remain 16 MTPA as per EC. The estimated PM10 pollution loads from all the activities of Kiriburu and Meghahatuburu Mining operations before and after the proposed changes are as follows.

Table 7 – PM Emission Load from various Mining Activities

Sl. No.	Area/Activity	Emission rates (g/s)	
		(Existing)	(After Proposed changes)
1	From Kiruburu Mine including Emissions from Pits, OB Dumps and material handling	3.52	3.35
2	Meghahatuburu Mine including Emissions from Pits, OB Dumps and material handling	3.67	3.50
1	Emissions from haul roads during material transportation in and around mine pit	12.03	11.63

Sl. No.	Area/Activity	Emission rates (g/s)	
		(Existing)	(After Proposed changes)
2	Tailings Excavation and Dispatch (@2 MTPA)	-	0.22
	Total	19.22	18.70
	Net Change	-0.52 g/s (-2.71%)	

An overall decrease in PM pollution load is anticipated due to present proposal.

13. The Committee is of the view that site visit could not be conducted due to COVID-19 pandemic and it may further take some time to become the situation to normal. In the meanwhile it is suggested that proposal may be considered based on the information and technical studies, so far submitted by the PP and a compliance visit/re-confirmation from RO may be done within a year.

14. Based on the discussion held and document submitted the Committee recommended the proposal for grant of EC under para 7(ii) of EIA Notification 2006 for the amendment in EC as proposed in para 6 above subject to the following additional specific conditions:

- i. This amendment is valid for a period of one year and the same may be extended after the site visit or compliance monitoring by Regional Office, whichever is earlier.
- ii. Fines from the tailing dam shall not be excavated during the monsoon period.
- iii. Mitigative measures proposed for excavation and transportation of mineral shall be complied with including moist and covered.
- iv. The PP shall monitor the fugitive emissions by installing at least two AAQ monitoring stations along the transportation route.
- v. The stripping ratio and total excavation for each year shall remain same as approved in the previous EC. Any change in the same is with prior approval of the Ministry.

2.4 Redi Iron Ore Mine of M/s Minerals and Metals with proposed production capacity of 0.2 Million Tonnes per annum of iron ore in the mine lease area of 27.452 Ha., located at Redi Village (including Sakhalbhat, Mhartale and Bambadojiwadi), Taluka Vengurla, District Sindhudurg, State Maharashtra. [Proposal No: IA/MH/MIN/148253/2020, File No: J-11015/27/2020-IA.II(M)]- Terms of Reference regarding.

1. The Proposal of M/s Minerals and Metals for Iron Ore mining with production capacity of 0.2 Million Tonnes per annum of iron ore in the mine lease area of 27.452 Ha., located at Redi Village (including Sakhalbhat, Mhartale and Bambadojiwadi), Taluka Vengurla, District Sindhudurg, State Maharashtra. The project area falls under topo sheet No. 48 E/10 covering Latitude N 15°44'25.64" to 15°44'53.28" and Longitude E 73°39'21.19" to 73°40'54.18". The PP applied online vide proposal No. **IA/MH/MIN/148253/2020** and submitted the Form-1, Pre-feasibility Report.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, this mining project falls under Category 'A Project or activity 1(a) as the project attract general condition as mining lease falls at 1.36 Km from the Goa State boundary.

3. Project Proponent has reported that 'M/s Minerals and Metals', was granted Mining Lease 'Redi Iron Ore Mine', with an area of 27.452 Ha., located at Redi Village (including Sakhalbhat, Mhartale and Bambadojiwadi), Taluka Vengurla, District Sindhudurg, State Maharashtra and the said Mining Lease is now valid up to 20/8/2029. PP has submitted the letter issued from DMG, Government of Maharashtra issued vide No. MLR-1847/2019/2114 dated 29.08.2019 w.r.t. grant of extension of Mining lease. PP has reported that the mining lease deed has been executed. Mining lease area falls in Topo sheet no 48 E /10 of Survey of India. Now, as per the DGPS plan duly certified by the Department of Geology and Mines, Government of Maharashtra, the Mining Lease area is 27.0374 Ha. Accordingly, the Planning of Mining and allied activities is limited to the said 27.0374 Ha area only. The Lease is in three blocks namely Block 1 (1 & 1A), Block 2 and Block 3. Block 1(1 & 1A) is falling under CRZ and the other two blocks (Block 2 & 3) fall outside the CRZ. The lessee will work in the Block 2 and Block 3 falling outside the CRZ. The western most part of the Mining Lease, called Block 1 (1 & 1A) is located near the sea coast, Block 2 forms the central part and Block 3 is the eastern most part of the Mining Lease. The western and eastern part is relatively flat, while the central part is along the slope of the plateau. The highest contour is 24 m and the lowest is 10 m. No specific drainage pattern is observed in the area. There are no perennial sources of water within the mining lease area. However, rain water during monsoon season, drains along the natural courses towards north to Shiroda creek. The ground water table in the area is around +6 m MSL. Shiroda creek is beyond 422m from the lease boundary. A water reservoir is located at south eastern part of the lease area, called Kanyal tank at a distance of 1.10Km from the Mine Lease Boundary.

4. PP has submitted that on an average, the quantity of overburden/waste generated will be about 3.0 Lakh Tonnes per annum. Mining operations will be by way of mechanized opencast method without drilling & blasting, complying with all the statutory requirements using Heavy earth moving machineries like Rippers and Dozers, shovels, dumpers, wheel loaders, and tippers. Rippers and Dozers will be used for ripping of hard material and wheel loaders are used for loading and levelling. The excavation will be done by

hydraulic excavators bucket capacity of 2.45 cubic meter and hauling by 25 to 35 Tonnes capacity dumpers and 10 tonner tippers. Water tankers of capacity of 8000 to 10,000 liters are used for dust suppression. Redi Port is at a distance of about 1.4 to 4.0 Km by road from the lease. Finished product (Lumps & Fines)/ROM will be sold to the domestic buyer for further export or domestic consumption. The ore transportation by the buyer will be done by tippers with the capacity of 10Tonnes as well by dumpers with higher capacity. Mine will be worked by forming systematic benches in ore and overburden maintaining a maximum optimum pit slope 30°. The height of the benches maintained will be 6 meters and width will vary between 8 to 11 meters. Based on size and capacity of the machinery, mine approach road and mine haulage road with a width of 11 meters and with an average gradient of 1:16 will be maintained.

5. PP submitted that the no forest land is involved in the mining lease. However, the Lease is in three blocks namely Block 1 (1 & 1A), Block 2 and Block 3. Block 1(1 & 1A) is falling under CRZ and the other two blocks (Block 2 & 3) fall outside the CRZ. The **project requires the grant of EC and CRZ**. The Lessee had uploaded the application for CRZ clearance and is under examination. Sawantwada reserve forest of fairly dense mixed jungle exist at 8.52 km NE of the lease boundary (Block- 3) in the buffer zone. Shiroda Creek which meets the sea. High Tide Line of Shiroda creek is beyond 422 m N from the lease boundary (Block-3). Terekhol creek is located towards SE located at 2.50 km from lease boundary (Block-2). A water reservoir is located at southeastern corner of Redi village, called Kanyal tank, at a distance of 1.10 km SSE from the Lease boundary (Block-3). Arabia.

6. PP submitted that during the lease period the proposed afforestation will be carried out to fill up the gaps in the areas of existing plantation and also along the 7.5m safety barrier wherever feasible. About 500 saplings are proposed to be planted every year.

7. PP has submitted that there is no abstraction or transfer of water from surface water body is envisaged. However, the mining activities will go below the ground water table. The abstraction of the ground water will be done on obtaining necessary permission from the CGWA. Total water requirement shall be 165 m³/day. (Dust suppression - 150 m³/day Green belt - 10 m³/day Domestic & drinking - 5 m³/day).The drinking water to office and canteen will be supplied by drawing it from well water in the nearby areas through contractor. During rainy season most of the water from broken up area proposed will be diverted to the proposed pit. The pit acts as settling pond and the clean water will be supplied to the villagers for Irrigation and other utilities in fair season. Also a part of pumped out water will be utilized for dust suppression. No sewage is generated from the mine. The waste water generated during the washing and maintenance of machineries will be treated in Eco Tanks and will be recycled for washing. The domestic waste water will be treated in the septic tank and soak pit.

8. PP has submitted that it will draw the R & R plan as per the statutory requirements and mutually agreed compensation to the home oustees, land

outstees etc. before commencing the operations in the habitation areas.

9. PP submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

10. PP submitted that the estimated cost of the project is Rs. 890 Lakhs. The mine shall provide employment to 360 people, in direct and indirect way. About 60 families in direct way and 300 families will benefit indirect way with this project

11. After detailed deliberations, the committee observed the following: -

- i. The Lease is having non-contiguous blocks namely Block 1, Block 1A , Block 2 and Block 3;
- ii. The western most part of the Mining Lease, called Block 1 and Block 1A is located near the sea coast;
- iii. Block 1 and Block 1A are falling under CRZ. However, PP informed that no mining is proposed in these blocks;
- iv. A public road passes at a distance of about 145m in the Southeast direction of the mining lease area (Block 3);
- v. The CRZ boundary is about 40m of the block-2 (as informed by the PP);
- vi. Shiroda creek is about 422 m from the lease boundary;
- vii. A water reservoir is located at south eastern part of the lease area;
- viii. Total Reserves and Resources is 1.8614 MT in Block 3 and 0.897 MT in Block 2;
- ix. The committee observed that good green belt is available within the ML area; and
- x. The committee also noted that the habitations are also just adjacent to the boundary of the ML area of block-2.

12. The committee after detailed deliberations on the proposal in respect of ecological sensitivity of the proposed location and availability of scanty reserves in the proposed ML area is of the view that PP shall submit the following information before consideration of the proposal. The Committee therefore deferred the proposal.

- i. On viewing the KML file it has observed that location of the mine is such that it is very close to water bodies, creek, area have good forest cover. The Committee observed that total mineral reserves are only 1.57 Million Tonnes and with a rated capacity of 0.2 Million Tonnes per annum, the life of the mine will be 8 years. As the mineable reserves are not much therefore PP needs to submit the cost-benefit analysis of

the project in respect of the value of the mineral via-a'-vis the ecological services rendered by the area.

- ii. The Committee also observed that there are dumps inside the mining lease area and the same needs to be investigated by the concerned mining department. Therefore, a certificate from the DMG to the effect that no mining activities have been carried out by PP in the said lease area needs to be submitted.
- iii. PP submitted that they have already applied for CRZ Clearance. The Comments of Division handling the CRZ Clearance may also be obtained on the issue that whether the project can be considered or not as per prevailing notifications w.r.t to requirement of CRZ Clearance.
- iv. PP submitted that the mining lease is falling outside the ESA Area villages as mentioned in the Ministry's direction vide letter No F.No. 1-4/2012-RE(Pt) dated 13.11.2013. But it has come to the notice that recently a writ petition filed before Hon'ble Supreme Court on the issues related to Western Ghat. The PP needs to submit whether there is any possible impact of the said W.P(Civil) on the instant proposal.
- v. Specific recommendation of the CRZ division based on the inputs from the SCZMA on the proposal. The representative of CRZ Division also shown her concern about the demarcation of area and suggested that PP should submit the demarcation details as approved by MCZMA.
- vi. PP is required to submit the copy of application for obtaining permission from CGWA for intersection of ground water and withdrawal of ground water if any.
- vii. PP needs to provide the details of the existing tree density, the number of trees that is going to be cut due to the said proposal and protection against the sensitive areas.

2.5 Aridongri Iron Ore Mine of M/s Godavari Power & Ispat Limited at Village Kachche, Tehasil Bhanupratappur, Dist. Uttar Bastar (Kanker)- Enhancement of iron ore production from 1.405 MTPA to 2.35 MTPA (incl. 0.55 MTPA BMQ) along with setting up of beneficiation plant of 0.60 MTPA capacity for beneficiation of Banded Magnetite Quartzite (BMQ), setting up of 250 TPH Iron Ore Screening Plant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA at Kachche Aridongri Iron Ore Lease within existing leasehold area of 138.96 ha, located at village: Kachche, Tahsil: Bhanupratappur, District: Uttar Bastar (Kanker), State: Chhattisgarh [Proposal No: IA/CG/MIN/130756/2019; F.No. J-11015/384/2012-IA.II(M), Consultant: Vardan Environet]- Consideration of ToR.

1. The proposal of M/s Godavari Power & Ispat Limited is for enhancement of iron ore production of Kachche Aridongri Iron Ore Mines from 1.405 MTPA

to 2.35 MTPA (incl. 0.55 MTPA BMQ) along with setting up of beneficiation plant of 0.60 MTPA capacity for beneficiation of Banded Magnetite Quartzite (BMQ), setting up of 250 TPH Iron Ore Screening Plant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA at Kachche Aridongri Iron Ore Lease within existing leasehold area of 138.96 ha, located at village: Kachche, Tahsil: Bhanupratappur, District: Uttar Bastar (Kanker), State: Chhattisgarh. The site falls between Latitude 20°24'09.33642"N to 20°25'01.51454"N and longitudes 81°03'33.73692"E to 81°04'13.28954"E & is covered under the Survey of India toposheet no. 64H/3.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha.

3. PP has submitted that earlier, there were have two leases namely 106.60 ha lease & 32.36 ha. lease in Kachche Aridongri Iron Ore Mines. Lease deed for 106.60 Ha lease was initially executed on 30.09.2008 for a period of 20 years i.e. up to 30.09.2008. Subsequent to the enactment of Mines and Minerals (Development and Regulation) (Amendment) Act, 2015, the period of mining lease of 106.60 ha. lease was extended up to 29.09.2058. Lease deed for 32.36 Ha lease was executed on 12.05.2015 for a period of 50 years i.e. up to 11.05.2065. These two leases were amalgamated in the year 2015. Thus, total lease area of Kachche Aridongri Iron Ore Mines is 138.96 Ha, as on date. Lease deed for amalgamated Kachche Aridongri Iron Ore Lease was executed on 03.09.2015 for a lease area of 138.96 ha. for a period of 50 years. The lease is valid up to 29.09.2058. PPhas submitted lease agreement of amalgamation of mining leases dated 03.09.2015.

4. PP has submitted that Government of India, MoEF, accorded EC under the provisions of EIA Notification dated 14th September, 2006 on 25th June, 2007 for lease area 106.60 Ha for production capacity of 0.705 Million Tonnes per Annum. Environment clearance for expansion of lease area from 106.60 ha. to 138.96 ha. and enhancement of production capacity from 0.705 to 1.405 MTPA was granted by MoEF&CC vide letter no. J11015/384/2012-IA.II (M) dated 12.12.2014. Environment Clearance was amended on 26.05.2016 vide Letter No. J-11015/384/2012-IA.II (M) for installation of 400 TPH Crushing & Screening facility within 138.96 Ha mine lease area for sizing of ore.

PP had applied earlier vide Proposal No. IA/CG/MIN/130715/2019. The proposal was placed in EAC meeting held during 06.05.2020 wherein the Committee observed that PP has proposed for both mining of mineral and beneficiation but applied only under schedule 1(a) in addition to this PP also proposed for mining of dolerite. The Committee after detailed deliberation returned the proposal in present form and ask the PP to apply under schedule 1(a) & 2(b). In addition to this past production details duly authenticated by DMG for all the mineral and all the mining leases and amalgamated mining lease needs to be submitted. PP shall examine and confirm whether there is a violation of S.O. 804(E) dated 14.03.2017 & Common Cause Judgment

dated 2.08.2017 or not.

The PP has now applied online vide proposal No. IA/CG/MIN/130756/2019 dated 21.05.2020 and has submitted the Form-1, Pre-feasibility Report for enhancement of iron ore production of Kachche Aridongri Iron Ore Mines from 1.405 MTPA to 2.35 MTPA (incl. 0.55 MTPA BMQ) along with setting up of beneficiation plant of 0.60 MTPA capacity for beneficiation of Banded Magnetite Quartzite (BMQ), setting up of 250 TPH Iron Ore Screening Plant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA at Kachche Aridongri Iron Ore Lease within existing leasehold area of 138.96 ha.

Consent to establish (CTE) under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 was obtained for 0.705 Million Tonnes per Annum capacity on 18.09.2007. CTE was granted by Chhattisgarh Environment Conservation Board (CECB) vide letter no. 3027/TS/CECB/2015 dated 05.10.2015 for expansion of lease area from 106.60 ha. to 138.96 ha. and enhancement of production capacity from 0.705 to 1.405 MTPA. CTE for the amendment for installation of 400 TPH Crushing & Screening facility within 138.96 Ha mine lease area was issued by CECB vide letter no. 4928/TS/CECB/2016 dated 7.12.2016.

Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 was obtained for 0.705 Million Tonnes per Annum capacity on 08.09.2008. Renewal of CTO was made from time to time. Last CTO granted by CECB vide letter no. 7993/TS/CECB/2019 dated 11.12.2019 is valid till 05.01.2021.

PP has submitted the EC compliance Report duly authenticated by the Regional Office of the Ministry vide letter dated F.No. 3-8/2015(ENV)/4513 dated 22.10.2018.

5. PP has submitted that out of the total 138.96 Ha Lease Area, 127.40 Ha is forest Land. The lessee has obtained forest clearance for entire forest land within the lease area. Forest clearance for the 106.60 Ha Lease has been granted by MoEF&CC vide letter no. 8-5/2007-FC dated 04.08.2008. Forest clearance for the 32.36 Ha Lease has been granted by MoEF&CC vide letter no. 8-36/2012-FC dated 19.02.2015. There is no wild life sanctuary, national park or eco sensitive zone and critically polluted area within 10 Km radius of the mine lease area.

6. PP has submitted that the 1st Mining Plan for Kachche Aridongri Iron Ore Mine, over an area of 106.60 Ha was approved by IBM Nagpur vide letter no. KNK/Fe/MPLN-939/NGP, dated 24.07.2006. Scheme of Mining for Kachche Aridongri Iron Ore Mine , over an area of 106.60 Ha was approved by IBM Nagpur vide letter no. KNK/Fe/MPLN-939/NGP, dated 29.06.2015. 1st Mining Plan & Progressive Mine Closure Plan for adjoining Kachche Aridongri Iron Ore Mine, over an area of 32.36 Ha was approved by IBM Nagpur vide letter no. 314(3)/2010/MCCM(CZ)/MP/PMCP-35 dated 23.05.2011. Subsequently upon amalgamation of both the leases, Mining

Plan for amalgamated Kachche Aridongri Iron Ore Mine , over an area of 138.96 Ha was approved by IBM Nagpur vide letter no. KNK/FE/MPLN-1151/NGP, dated 03.07.2015. Review of Mining Plan & Progressive Mine Closure Plan under Rule 17 (2) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 prepared under rule 23 of MCDR 2017 for an area of 138.96 Ha has been approved by Indian Bureau of Mines, Raipur (C.G.) vide letter no. Durg/Chup/Khayo-1227/2019-Raipur dated 09.01.2020 for production capacity of 2.35 MTPA alongwith BMQ beneficiation plant of 0.6 MTPA capacity, 250 TPH screening plant with Magnetic Separators and 2 MTPA Capacity Dolerite Crushing & Screening Plant.

7. PP has submitted that presently, fully mechanised opencast mining with deployment of drills, and shovel dumper combination is being used at Aridongri Iron Ore Mines. There will be no change in existing method of mining. Method of mining will be fully mechanized opencast mining method with formation of benches by drilling and blasting. ROM (iron ore), BMQ and Dolerite produced from the quarry will be transported by 25t/31 t capacity tippers/dumpers up to feed hopper of respective plants. Processed ore from loading silo in mining lease will be transported up to end-use plant of GPIL located at Siltara by tarpaulin covered trucks. Total Mineable reserve of Iron ore is 21.538 million tonnes and that of Banded Magnetite Quartzite (BMQ) is 8.713 million tonnes. Thus total mineable reserve of the deposit is 30.251 million tonnes. Rated capacity of the mine will be 2.35 Million Tonnes/annum. Life of the mine is 15.84 years based on present reserve of Iron Ore and BMQ and proposed rated capacity. A total of 27.27 Mm³ of wastes will be generated from entire Aridongri Iron ore lease upto conceptual stage. Out of which, 6.373 Mm³ waste will be dumped in the proposed waste dump WD1 Between 506218E to 506850E & 2256836N to 2257622N in the Northern part of the lease. 6.809 Mm³ waste will be dumped in the proposed backfill BF2 Between 506585E to 507057E & 2256204N to 2256492N in the southern part of mined out area, 0.806 Mm³ waste will be dumped in the proposed backfill BF1 Between 506218E to 506850E & 2256836N to 2257622N in the northern part of mined out area Balance 11.791 Mm³ of Dolerite Produced from year 2021-22 to conceptual stage has been proposed to be stacked separately and will be utilized after due crushing and screening.

8. PP has also provided year-wise Iron Ore Production (2008-09 to 2019-20 upto Dec, 2019) alongwith approved production as per Environmental clearance (EC) & Consent to Operate (CTO) from Kachche Aridongri Iron Ore Lease since inception of Mines. Further, PP has provided Year-wise proposed production as per approved Review of Mining Plan for the period from 2020-21 to 2024-25.

9. PP has submitted the past production details duly authenticated by the Department of Mines and Geology, State Government for the period from 2008-09 to 2019-20 vide its letter No. 90/Khanij/Kh.P./2020-21, dated 20.05.2020.

10. PP has submitted that total water requirement at Kachche Aridongri

Iron Ore Mine is 414 m³ /day out of which domestic and industrial water requirement are to the tune of 40 m³ /day and 374 m³ /day respectively. Domestic water requirement of 40 m³ /day has been planned to be met from borewells. Out of the 374 cu.m/day Industrial water requirement, 260 m³ /day industrial water requirement has been planned to be met through borewell and balance 114 m³ /day from mine water. The lessee has ground water drawl permission of 300 m³ /day from CGWA.

11. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

12. PP has submitted that the estimated project cost is Rs. 6147 Lakhs. Existing manpower of the Kachche Aridongri Iron Ore Mines is 1091. Additionally, 50 persons will be required thus the total manpower shall be 1141 persons after the proposed expansion. Out of the total manpower, about 1065 shall be through contracting. Most of the workers will be sourced from the local villages and nearby towns. Indirect employment will be around 2000.

13. PP has reported that Environmental monitoring for base line data generation is under progress for the summer season March, April & May 2020.

14. Based on the discussion held and document submitted the Committee **deferred** the proposal due following reasons and for want of following documents.

- i. PP did not submit the valid mining lease/LOI for the mineral Dolerite which will be used for non-captive purpose. Therefore, the same needs to be submitted.
- ii. After verification of the KML file on the Google Earth, the Committee is of the view that the PP has not carried minimum plantation along the boundary of the mining lease. The committee expressed its dissatisfaction on the status of the plantation that even after 12 years of grant of EC, PP did not make any efforts for development of greenbelt. Further, the committee observed that accumulation of dust in the crusher area. The committee advised the PP to carry out plantation with atleast 12 Feet height saplings of native species during the ensuing monsoon, and may approach the Ministry, along with the certification from the local DFO in respect of the plantation along the ML boundary and inside the mining lease boundary. The DFO should also mention the no of trees/saplings, height of the sapling, species planted etc, for both along the lease boundary and within ML area in its certificate.
- iii. Water utilization as against the previous EC, and why there is an increase in waster demand needs to be submitted.

- iv. Location of proposed beneficiation plant, crusher plant needs to be shown on KML file and map.
- v. Affidavit submitted by the PP is not as per O.M dated 30.05.2018 the revised affidavit needs to be submitted.

2.6 Sedam Limestone Mine of M/s. Dalmia Cement (Bharat) Ltd. with Limestone Production Capacity 5.2 Million TPA, Soil 0.062 Million TPA and Waste 0.98 Million TPA; (Total Excavation 6.242 Million TPA) along with 1500TPH capacity of crusher (13 ha outside the lease area), in the mine lease area of 995.97 ha, located at Villages: Beeranahalli, Arebammanahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam), Taluka: Sedam, district: Kalaburagi, Karnataka. [Proposal No: IA/KA/MIN/154994/2020; F.No. IA-J-11015/26/2020-IA.II(M)] - Consideration of ToR.

1. The proposal of M/s. Dalmia Cement (Bharat) Ltd. is for Sedam Limestone Mine (ML Area: 995.97 ha) with Limestone Production Capacity 5.2 Million TPA, Soil 0.062 Million TPA and Waste 0.98 Million TPA; (Total Excavation 6.242 Million TPA) along with 1500TPH capacity of crusher (13 ha outside the lease area) at Villages: Beeranahalli, Arebammanahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam), Taluka: Sedam, district: Kalaburagi, Karnataka. The site falls between Latitude: 17°11'03.2"N to 17°12'55.0"N and Longitude: 77°12'14.2"E to 77°15'55.8"E & is covered under the Survey of India toposheet no. E43R3, E43R4, E43R7 & E43 R8. The site falls in Zone – II as per IS: 1893 (Part-I): 2002.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha. PP applied vide Proposal No: IA/KA/MIN/154994/2020 dated 31.05.2020 and submitted Form-1 & PFR. The proposal is now placed in EAC meeting held during 22-24 June, 2020.

3. PP has submitted that Government of Karnataka, had granted prospecting license over an area of 1221.88 hectare and same was executed on 21.08.2007 vide PL no. 3363. The prospecting operations commenced on 01.03.2008. Further, DCBL applied for mining lease for an area admeasuring 995.97 ha on 09.05.2008. The State Govt. has issued Letter of Intent vide letter no 736AML 08-09/158, dated 08.04.2009. The Central Govt. exercise of the powers conferred under provisions of 6(1) (b) of MMDR act 1957 has accorded approval to increase the area limit to 25 sq.km. for mining lease for mineral limestone in the state of Karnataka. Govt. of Karnataka has granted mining lease vide Govt. order no. CI 98 CMC 2018, Bengaluru, dated 16.07.2019 over an area of 995.97 ha in favor of DCBL.

4. PP has submitted that the Mining Plan with Progressive Mine Closure Plan has been approved by IBM vide letter no 279/1107/2019/BNG/144, dated 23.01.2020. PP has submitted that Mining operations will be carried out by fully mechanized opencast method. Drilling will be carried out by crawler mounted DTH/Top hammer Drill machine. Conventional blasting will

be done using SME/ ANFO. DCBL will be adopted NONEL (Non- Electrical Initiation system) for blasting. Loading will be done by Hydraulic Excavators and transport of mineral will be done by dumper to crusher via road (A 1500 TPH capacity of crusher will be installed outside the lease area in the Southern side). Crushed limestone will be transported to interlinked Cement Plant via covered conveyor belt of ~ 3.7 km length /via dedicated company owned road of ~3.5 km length.

The Committee is of the view that reason for installing the crusher outside the mining lease is not clear; a large mining lease area is already granted which is sufficient enough to accommodate the ancillary mining activities including crushing.

5. Limestone mine spreads over an area of 995.97 ha. As per the initial exploration carried out, total reserves and resources are estimated to be about 315.67 million tonnes, out of which total mineable reserves (proved & probable) are about 145.53 million tones and balance geological resources are estimated to be about 170.14 million tones. The mineable reserves i.e. 145.53 million tones will last for 32 years with proposed production capacity of 5.2 MTPA from the 6th year onwards. The life of mine may increase after proposed exploration. Till the conceptual period it is estimated that about 0.513 million tons of soil and 9.92 million tones of waste (OB/IB/SB) will generated.

The Committee is of the view that level of exploration and target for the same needs to be defined by the PP.

6. PP has submitted that no Forest land is involved within the lease area. PP also reported that No National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, Wildlife Corridors, etc. falls within the study area.

7. PP has submitted that Total **Greenbelt/Plantation** will be covered over an area of 198.52 ha. Greenbelt will be developed along the ML periphery in 7.5m covering about 11 ha and plantation will be done in 50 m safety zone of nallha, roads, electric lines covering 76.5 ha area and Safety zones of 500m from the nearest habitation villages covering 111.02 ha area. Native species will be planted as per CPCB guideline and in consultation with the local forest department.

8. PP has submitted that about 70 KLD of water is required for domestic (5 KLD), workshop (5 KLD), green belt (10 KLD) & dust suppression (50 KLD) of the mines. The water will be sourced from the interlinked cement plant which in turn has obtained permission of 3,148 KLD water withdrawal from Kagina River vide letter dated 19.04.2016 from Govt. of Karnataka. It will be further augmented with rain water harvesting and mine sump water as & when developed. Wastewater (4KLD) generated from workshop will be treated using oil-water separator and treated wastewater will be used in dust suppression and vehicle washing. Sewage (4 KLD) generated from the mine office, rest shelters etc. will be treated in Modular STP (Capacity 7 KLD) and treated waste water will be used for plantation.

The PP in the EIA Report needs to bring out the target for reduction in water consumption and timeline within which the mine will become self-sufficient for its water requirement.

9. PP has reported that there are no home oustees present within the ML Area. There is a MehboobSubhani Samadhi present within the ML Area and the same will not be disturbed and it may be relocated in future after getting approval from the concerned family, if mutually agreed. However, sufficient safety barrier and approach road is currently proposed. Land oustees are involved in the ML Area. About 137 ha Pvt. land has been purchased within the ML Area and 13ha area earmarked for infrastructure outside the ML Area has also been purchased till date with mutual consent in line with Government Policy.

10. PP submitted that about Rs. 3.275 crore will be allocated under CER activities. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

11. PP has submitted that the estimated project cost is Rs. 185 crores. The total manpower for this project will be 100 persons. Beside this, the mining activity creates lot of indirect employment opportunities to the local people in various activities like afforestation, canteen, transportation, workshops and other petty shops etc. Further, there would be a lot of indirect employment opportunities arising due to the proposed cement project. Preference will be given to the locals as per their eligibility.

12. Based on the discussion held and document submitted the Committee **recommended** the proposal of M/s. Dalmia Cement (Bharat) Ltd. for grant of Term of Reference for production of 5.2 MTPA of Limestone with total excavation 6.242 MTPA (5.5 MTPA Limestone, Soil 0.062 Million TPA and Waste 0.98 Million TPA) along with installation of 1500TPH capacity of crusher in the mine lease area of 995.97 ha, located at Villages: Beeranahalli, Arebammanahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam), Taluka: Sedam, district: Kalaburagi, Karnataka. In addition to standard ToR the committee also prescribed the following additional ToR for this project:

- 1) The total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- 2) PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017-IA.II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court

dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- 3) PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- 4) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- 5) PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this plantation in the safety zone at lease boundary the plantation should be completed within 2 years only.
- 6) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- 7) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- 8) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility needs to be submitted. The capital and recurring expenditure to be incurred needs to be submitted.

- 9) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- 10) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- 11) PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst case and control case scenario needs to be submitted. The cumulative impact of other activities needs to be considered in EIA/EMP Report.
- 12) The PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation.
- 13) PP should clearly bring out that what is the specific diesel consumption (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- 14) PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- 15) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- 16) The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- 17) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to

this PP should submit the original test reports and certificates of the labs which will analyze the samples.

- 18) All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- 19) Feasibility of installation of crusher inside the mining lease boundary needs to be explored. Target for completion of exploration needs to be submitted.

2.7 Stone Mines of M/s Starnet Marketing Private Limited proposed production capacity of 495285.12 TPA in the mine lease area 8.397 Ha located at Village Madurna, Tehsil- Chainpur, District- Kaimur, State Bihar. [File No: J-11015/63/2019-IA.II(M); Proposal No. IA/BR/MIN/109225/2019] - Consideration of ToR.

1. The Proposal of M/S Starnet Marketing Private Limited is for grant of Term of Reference for production of 495285.12 TPA of Stone from mine lease having area of 8.397 Ha located at Village Madurna, Tehsil- Chainpur, District- Kaimur, State- Bihar. The site falls between Latitude 25°01'34.30"N to 25°01'46.8"N and longitudes 83°28'48.80"E to 83°29'02.7"E.

2. PP submitted that they have applied to the Ministry as Cat 'A' project as the general condition is applicable for the project as the Kaimur WLS is coming within 10 km of the project site.

The Committee previously asked the PP to submit the cluster certificate as per S.O. 2269 (E) dated 1.07.2016.

PP is its reply dated 20.04.2020 submitted Letter No. 344/Khanan, Kaimur dated 05.03.2020 issued by District Mining Office, Kaimur (Bhabhua) wherein it has mentioned that there is no other mining lease within 500 meters of the said mining lease.

3. PP applied for Term of Reference (ToR) vide proposal No. IA/BR/MIN/109225/2019 dated 27.12.2019 and the proposal was placed in EAC meeting held during 30-31 January, 2020 and the Committee deferred the proposal for want of requisite information. The PP submitted the information online on 20.04.2020 and the proposal is now placed in EAC meeting held during 22-24 June, 2020.

4. PP has submitted that the State Government granted LoI vide letter No. 1033 dated 26.07.2016 over an area of 20.75 Acre (8.397 Ha) for stone mining.

The Committee previously observed that "In LoI time period of 120 days was given for submission of certain documents and that has already been expired, thus PP needs to submit the revised valid LoI"

PP in its reply submitted on 20.04.2020 submitted a letter issued vide Letter No. 343/Khanan, Kaimur dated 05.03.2020 from District Mining Office, Kaimur (Bhabhua) wherein PP was asked to submit the requisite documents and no time restriction is mentioned.

5. PP has submitted that the Mining Plan is being submitted Under Rule 22(1) of Bihar Minor Mineral Concession (Amendment) Rules, 2014 & its amendments. PP submitted that method of mining will be opencast mine with drilling & blasting. Drilling is being carried out with 25mm dia jack hammer drill rids & blasting material is explosive. The blasted material broken by machinery up to sized 2ft & loaded into tippers manually or machinery dispatch to crusher plant which is about near boundary wall of mine site. Mining is being carried thought the formation of one bench. The height of bench was kept 6m width of benches was kept 6m with face slope 60° . Approach road having width 5 m & gradient 1:16 was provided to mining faces for the transportation of mineral. No raw material will be required in the proposed project. The operation involves only the excavation of Stone in its existing form and transported to the end users/ market. Minimal amount of Solid Waste will be generated at the site by the local workers, hired for the project. Soil shall be generated during course of mining & stacked separately. No waste shall be generated therefore no proposal has been given for its disposal & management. Mining will be done up to 160mRL to 88mRL. After completion of mining the outer periphery of mining pit shall be fenced. During plan period & by the end of conceptual period negligible waste shall be generated. All quantities of Stone to be exploited shall be used for making aggregates. Therefore it is not possible to rehabilitate the mined out benches. The mined out pit shall remain open & rain water will accumulate in the pits. A water body in the area will be boon to local people for improving their life style.

6. PP submitted that no **forest land** is involved. **Kaimur WLS** is coming within 10 km of the project site. Banda Protected Forest Approx. 4.00 Km towards W Narwa Protected Forest Approx. 4.5 Km towards NW Makrihoh Protected Forest Approx. 9.3 Km towards SW.

The Committee previously asked PP to submit the Proof of distance of mining lease from protected area duly authenticated by concerned authority.

PP in its reply dated 20.04.2020 submitted the letter issued vide letter No. 892 dated 19.03.2020 by DFO, Kaimoor Forest Division, Bhabhua stating that the said mining lease area is at a distance of 4.8 km from Kaimur Wildlife sanctuary and 3.2 km from the Reserved Forest.

The Committee also asked the PP to submit the applicability of NBWL Clearance.

The PP vide its letter dated 29.06.2020 submitted that *the Mine lease area (Latitude 25° 1'34.33"N & Longitude 83°28'52.80"E) is outside the Eco-sensitive Zone of the Kaimur Wildlife Sanctuary as per the notification S.O. 3549(E) dated 30th December 2015. As per the Office Memorandum of MOEF &CC dated 8th*

August 2019. The project is not required prior NBWL Clearance. Although we have applied for distance certificate from Chief Wildlife Warden. A letter from Divisional Forest Officer (DFO) Kaimur Forest Division Bhabua regarding distance from the Kaimur Wildlife Sanctuary. Copy of letter is attached for your kind reference. A map is also attached showing distance from Eco-sensitive Zone of the Kaimur Wildlife Sanctuary for your reference.

The Committee observed that as per map submitted by the PP the mining lease is at a distance of 0.63 KM from the boundary of Eco-Sensitive Zone. However, a distance certificate from the concerned authority may be submitted in the EIA Report.

7. PP has submitted that it is proposed to plant of local trees per year as per consultation with local authorities. Density of plant will be 2500 plants per hectare. Native species will be planted during plan period.

8. PP has submitted that the total water requirement will be 7.64KLD which will be used for dust suppression (1.5 KLD), domestic purpose (1.14 KLD) and Green Belt development (5.0 KLD). This water will be supplied from the nearby sources through tankers, after due permission. No ground water abstraction or transfer is envisaged in proposed mining as it will not intersect ground water table.

9. PP has submitted that an amount of Rs. 13 Lakhs has been earmarked as capital cost towards Environmental management Plan. This will include 1) Air Pollution (Water Sprinkling) – Rs. 4.0 Lakhs, 2) Green Belt Development – Rs. 5.0 Lakhs and 3) haul Road Development – Rs 4.0 Lakhs.

10. PP has submitted that the yearly CSR cost of the project i.e. Approx. 1100000/- will be used for the welfare of people residing nearby the lease area in consultation with the local authority

11. PP has submitted that R&R Plan is not applicable as no person or family will be up rooted. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

12. PP has submitted that the estimated project cost is Rs. 550 Lakhs. The proposed mining activity will provide direct employment to about 38 workers. The workers will be hired mostly from the nearby villages.

13 During the meeting the Committee observed that KML file shows that there is already excavated pit and PP needs to submit a certificate to the effect that the said mining is not done by the PP. PP vide its email dated 23.06.2020 submitted letter no 980 dated 23.06.2020 issued by Mining department wherein it has mentioned the mining was done by previous lease holder and not by the current LoI holder.

14. Based on the discussion held and document submitted the Committee **recommended** the proposal of M/S Starnet Marketing Private Limited for grant of Term of Reference (ToR) for production of 495285.12 TPA Stone (ROM)

in the mine lease area 8.397 Ha located at Village Madurna, Tehsil- Chainpur, District- Kaimur, State Bihar. In addition to Standard ToR the Committee also prescribed following additional ToR for this project:

- 1) The total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- 2) PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017-IA.II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- 3) PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- 4) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- 5) PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this plantation in the safety zone at lease boundary the plantation should be completed within 2 years only.
- 6) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water

harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.

- 7) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- 8) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility needs to be submitted. The capital and recurring expenditure to be incurred needs to be submitted.
- 9) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- 10) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- 11) PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst case and control case scenario needs to be submitted. The cumulative impact of other activities needs to be considered in EIA/EMP Report.
- 12) The PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation.
- 13) PP should clearly bring out that what is the specific diesel consumption (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.

- 14) PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- 15) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- 16) The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- 17) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- 18) All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- 19) Application for NBWL Clearance if applicable or distance certificate and map from chief wildlife warden regarding distance of mining lease from the protected area and final eco-sensitive zone.
- 20) District Survey Report as per Ministry's Notification S.O. 3611(E) dated 25.07.2018 needs to be submitted.
- 21) Location of crusher and cumulative impact due to mining, transportation, crushing, re-handling of material, and other activities in the surrounding area needs to be submitted. In case at later stage there may be cluster situation then EIA/EMP for entire cluster needs to be submitted.

2.8 Lunghar Chromite Mines of M/s Sarvesh Refractories Private Limited with the production capacity of 10,531 TPA in the mine lease area of 132.781 Ha located in Village- Lungar, Sub-division- Ukhurl Central, DistrictUkhrul, Manipur. [Proposal No: IA/MN/MIN/130344/2019; File No: J-11015/07/2020-IA. II(M)] -

Consideration of ToR.

1. The proposal of M/S Sarvesh Refractories Private Limited is for the production capacity of 10,531 TPA in the mine lease area of 132.781 Ha. The mine lease area is located in Village- Lungar, Sub-division-Ukhurl Central, District-Ukhrul, Manipur. The ML area located in survey of India toposheet No. 83 K/8. The mine lease area falls in between Latitudes 25° 09' 52.35" N to 25° 09' 51.35" N and Longitudes 94°28' 10.67" E to 94°27' 43.67" E and feature in the toposheet No. 83 K/8. The area falls in Seismic Zone-V.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha.

3. PP has submitted that M/s Sarvesh Refractory Private Limited had applied for grant of Mining Lease for Chromite over 132.781 ha situated in village Shirohi-Lunghar in Ukhrul district of Manipur State. The State Government has issued approval vide letter No. 43/11/2006-Com & Ind dated 30/08/2007 with the prior approval of the Central Government vide letter No. 5/93/2006-MIV dated 10/08/2007, issued its previous approval, in favour of the M/s Sarvesh Refractory Private Limited under sub-section (1) of section 5 of the Mines and Minerals (Development and Regulation) Act, 1957 and rule made thereunder for grant of a mining lease. M/s Sarvesh Refractory Private Limited has completed the conditions specified under Govt. approval Letter no. 43/11/2006-Com & Ind dated 30/08/2007 and Ministry of Mines, Govt. of India order No. S.O 27 (E) dated 4/1/2017 without submission of Environmental Clearance (EC). Thereafter, the Director of Trade, Commerce & Industries has issued a letter No. D(5)-65/IND/2005 (Pt) dated 4/8/2018 to M/s Sarvesh Refractory Private Limited for grant of Mining Lease. M/s Rourkela Minerals Company Private Limited has submitted the a Performance Security as specified in the letter no. No. D(5)-65/IND/2005 (Pt) dated 4/8/2018. M/s Sarvesh Refractory Private Limited has signed the Deed for Grant of Mining Lease from Director of Trade, Commerce & Industries, Government of Manipur on 23.02.2019.

4. PP has submitted that the ML area is devoid of any forest land or agricultural land; entire land is categorised as unclassed Govt. land. PP has reported that there is no Wildlife sanctuary, national park, biosphere reserve, elephant reserve and tiger reserve within 10 km radius of the ML area. Shirui Lily habitat (Shirui Community Conserve Area) is approximately, 4.5 km (aerial distance) from the ML area

5. PP has submitted that the operation of mine will be fully manual by opencast method of mining with an objective to produce 10531 (maximum) tones per annum. Dumper/ trippers will be utilized for shifting ore and overburden to respective sites. Drilling and blasting will be conducted to dislodge the OB and ore body. Geological Proved reserve of exposed ore bodies is estimated to be 1134 tonnes. The geological probable reserve of float ore zone is estimated to be 91674 tones. Therefore, total demonstrated reserve (Proved and Probable reserve) is 92,808 tones. The total mineable reserves is

92,808 tones. The production capacity of the mine is 10531 tons per annum. Based on current exploration data, the life of the mine is 9 years. At the end of life mine, the broken up area will be reclaimed and rehabilitated.

In response to EDS, PP vide letter dated 17.01.2020 has submitted the following

Plan period: Total volume of excavation will be 48234 m³ , vol. of ROM ore- 14717 m³ , quantity of ore- 44044 tonnes, vol. of IB- 35 m³ and vol. of OB - 33482 m³ .

Conceptual Period: Total volume of excavation will be 53766 m³ , vol. of ROM ore- 16178 m³ , quantity of ore- 50581 tonnes, vol. of IB- 7 m³ and vol. of OB -37581 m³ .

6. PP has submitted that the safety zone around the ML area and dead end of the OB dump will be utilised for plantation. It is proposed to plant of 4.005 ha land and 6408 sapling in the Plan period. PP has prepared an annual plantation plan which will be for a period of 5 years.

7. PP has submitted that the average water requirement is 6.5 KLD and peak demand is 10.25 KLD. Water will be sourced from ground water. Sewage generated from the mine will be treated through septic tank and soak pit. The mine accumulated water (during monsoon season) will be treated through sedimentation tank.

8. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

9. PP has submitted that the estimated project cost is Rs. 20 crores. About 48 miners are proposed to be appointment. Apart from this, 19 numbers of personnel is also required for this mine.

10. PP applied vide proposal No IA/MN/MIN/130344/2019 on 13 Jan 2020 and submitted Form-1 & PFR. The proposal was placed in EAC meeting held during February 26-27, 2020 wherein the Committee observed that the mining lease area is mentioned as 132.781 Ha in Form-1 but as per the letter no 43/16/2005- Com&Ind/577 dated 1st October, 2007 submitted by the PP which obtained from the Secretariat: Commerce & industries Department, Government of Manipur the mine lease area is 85 Ha. Due to ambiguity in the mining lease area the Committee deferred the proposal and is of the view that PP in case it is Category 'B' mines then PP shall withdraw the application and apply to concern SEIAA else submit the document to in support of the fact that that the mining lease area is 132.781 Ha.

11. In view of above ADS, PP vide its letter No. SRPL/MS/20-21 dated 04.05.2020 has submitted the following information/clarification:

"In the PFR, few documents have been submitted as evidence stating that the Lunghar Chromite Mines encompassing a mining lease area of 132.781 ha were granted to M/S Sarvesh Refractories Private Limited. The

documents and corresponding page number in the PER is as provided below:

- *Mine Development and production agreement between Director (Trade, Commerce and Industry) of Manipur and M/S Sarvesh Refractories Private Limited on 28th February 2019 in Page 20 of PFR;*
- *Page 59 of PFR contains the geo-coordinates and total leased area of 132.781 hectares in Schedule VII (Format of Mining Lease);*
- *Page 64 of PFR contains a letter from the Secretariat: Commerce and Industries Department to the Director, Commerce and Industries, Manipur. In the letter, the grant of mining lease area of 132.78 hectares in Lunghar Village for a period of twenty years has mentioned.*

The EAC Committee has referred to a letter dated 1st October 2007 that was also provided in the PFR (Page 65) to intimate that along with Lunghar mines measuring 132.781 ha. Rourkela Minerals Company Pvt. Ltd — a sister company of Sarvesh Refractories Private Limited was also granted lease of another mine of 85 ha in Shingcha Gaman Village, Ukhrul District, Manipur (Same is enclosed by PP).

Further, the document showing the grant of mining lease for chromite deposit over an area of 132.781 ha in Lunghar Village, Ukhrul District, Manipur for a period of twenty years by Directorate of Commerce and Industries, Government of Manipur, dated October 27, 2007 vide Letter No. D (5)- 65/IND/2005/26 has been retrieved and is also attached for your reference (Appendix -1 submitted by PP).

In the current circumstance PP request to overlook this document dated 1st October 2007, which was issued for Singcha Gamnam mine of Rourkela Minerals Company Pvt. Ltd. Also, it is to be noted that Rourkela Minerals Compacy Pvt. Ltd have already applied for Environmental Clearance at the SEIAA Manipur.

PP has submitted the PFR for scoping and a modified PFR excluding the document dated 1st October 2007.”

12. The committee after deliberations observed that the PP did not submit the revised mining plan as advised by the committee in the EAC meeting held during February 26-27, 2020. The committee is of the view that in order to remove the ambiguity and to appraise the proposal for prescribing the ToR, PP shall submit the revised mining plan along with the protection measures planned against the National Highway and Road passing through the ML area. Therefore, the proposal was deferred.

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2.9 Production of 5.50 MTPA of Limestone total excavation from the mines will be 6.54 MTPA (Limestone: 5.5 MTPA, Soil: 0.56 MTPA and Waste: 0.48 MTPA) from Sonadih Limestone Mine (ML-1; Area : 294.160

Ha) located near Villages - Sonadih, Dhabadih, Raseda, Keshdabri, Baloda Bazar Tehsil & Balodabazar - Bhatapara District, Chhattisgarh by M/s Nuvoco Vistas Corporation Limited [File No.: J-11015/184/2016-IA.II(M); Proposal No IA/CG/MIN/72229/2016; Consultant: B.S. Envi – Tech Pvt. Ltd] - EC Regarding.

1. The proposal of M/s. Nuvoco Vistas Corporation Limited is for total excavation from the mines will be 6.54 MTPA (Limestone: 5.5 MTPA, Soil: 0.56 MTPA and Waste: 0.48 MTPA) for production of 5.50 MTPA of Limestone from Sonadih Limestone Mine (ML-1; Area 294.160 Ha] located near Villages - Sonadih, Dhabadih, Raseda, Keshdabri, Baloda Bazar Tehsil & Balodabazar - Bhatapara District, Chhattisgarh. The mine lease area lies between the 21°43'10.0"- 21°45'0.0" North latitude and 82°10'50.0"-82°12'20.0" East Longitude with an average altitude of 243-259m above MSL on the Survey of India Toposheet No. 64/K/2.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A or Activity 1(a) as the mining lease area is greater than 100 ha.

3. The Project Proponent [then M/s. Lafarge India Pvt. Limited] applied vide proposal no IA/CG/MIN/58559/2016 for prescribing Term of Reference (ToR) and submitted Form-1 and Pre-feasibility report. The proposal was considered in EAC meeting held on September 19-20, 2016, and EAC in its meeting held on November 23-25, 2016 recommended the proposal for prescribing Term of Reference (ToR). The ToR letter was issued on 16.12.2016 in the name of M/s. Lafarge India Pvt. Limited.

The Project Proponent then applied for transfer of Terms of Reference (TOR) from M/s. Lafarge India Pvt. Limited to M/s. Nuvoco Vistas Corporation Limited and submitted the requisite information and documents. The Ministry accorded transfer of TOR to M/s. Nuvoco Vistas Corporation Limited on 06.03.2018.

PP vide proposal no. IA/CG/MIN/72229/2016 applied for grant of EC online on 06.08.2018 and submitted the EIA Report after conducting the Public Hearing. EDS was raised on 11.09.2018 for submission of requisite information as follows:

- i. Please submit Valid executed lease document or valid LOI in the name of M/s. Nuvoco Vistas Corporation Ltd. showing valid executed lease document or valid LOI as on date.
- ii. Valid Mine plan approval letter in the name of M/s. Nuvoco Vistas Corporation Ltd.
- iii. Letter from state forest department stating that there is no forest land involved in the mine lease area.

- iv. Letter from state forest department stating that there is no schedule-1 species found in the mine lease area.
- v. Please upload valid kml file.
- vi. English translation of PH minutes
- vii. Please state whether ground water intersection will take place, if so, NOC from CGWA.

Due to delay in submission of information by the PP, the proposal was deleted from the PARIVESH portal on 02.03.2019 stating the reason that *“The EDS which were sought from PP and noted that PP has not submitted the information and requisite documents yet. It seems that PP is not interested to submit the information accordingly the proposal was delisted from the list”*. PP resubmitted the application vide proposal no. IA/CG/MIN/72229/2016 on 18.11.2019, thereafter, the Ministry raised EDS on 10.12.2019 for submission of requisite information as follows:

- i. The TOR issued to M/s. Lafarge India Private Limited on 16.12.2016 but EC application submitted in the name of M/s. NUVOCO VISTAS CORP. LTD. SONADIH UNIT. PP needs to clarify the same.
- ii. Copy of affidavit needs to be submitted by PP in compliance of the Ministry’s OM no. 3-50/2017-IA.III (Pt.), dated 30th May 2018.
- iii. Authenticated English translated copy of LOI/Lease document.
- iv. All documents are submitted in the name of M/s. NUVOCO VISTAS CORP. LTD. PP needs to clarify the same.

PP *uploaded* the information w.r.t. EDS on 19.12.2018 and the Ministry revalidated the proposal and raised EDS on 14.12.2020 as follows:

- i. The said proposal PP accorded the TOR on 16.12.2016 and PP Submitted the EIA/EMP report seeking the EC on 28.12.2019 after completion of validity of TOR, thus PP is requested to submit the proof that they have submitted the application before expire the TOR.
- ii. Also it is requested to submit the appropriate reply for the Previous EDS.

PP has submitted the reply to EDS dated 14.02.2020 on 20.02.2020. Meanwhile, it is also noted by Ministry that the said proposal of PP for grant of EC has been running in duplication with the same proposal number on PARIVESH portal and thereby creating ambiguity w.r.t. EDS raised and reply submitted by PP from time to time. In view of the same, PP was asked to withdraw one of the proposals. One of such proposals has been withdrawn on 24.03.2020 which has been accepted by the Ministry.

The PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the reply w.r.t. EDS raised on 10.12.2019 and thereafter on 14.02.2020 and uploaded the same on 20.02.2020 which is as follows:

- i. PP has submitted the information in its letter w.r.t. the chronology of actions taken in respect of making application for grant of EC.
- ii. With respect to EDS raised on 10.12.2019, PP has submitted the following:

Point-1: TOR was initially issued in the name of M/s. Lafarge India Private Limited on 16.12.2016. Subsequently, MoEF&CC has transferred the Terms of Reference in the name of NUVOCO vide letter no. J-11015/184/2016-IA.II (M) dated 6th March, 2018. (Copy of TOR letter is provided by PP). EC application is submitted in the name of M/s. Nuvoco Vistas Corp. Ltd.

Point-2: Copy of affidavit by compliance of the Ministry's O.M. no. 3-50/2017-IA.III (Pt.), dated 30th May, 2018 is submitted by PP.

Point-3: Authenticated English translated copy of LOI/Lease document is submitted by PP.

Point 4: Nuvoco Vistas Corporation Ltd. (NUVOCO) confirms that all the documents are submitted in the name of Nuvoco Vistas Corporation Limited.

Further, PP has submitted the replies to earlier EDS points raised on 11.09.2018 along with their resubmission.

4. PP reported that The Government of Chhattisgarh vide letter dated 15.06.2016 issued LOI/lease in favour of M/s Lafarge India Private Limited. Total mine lease area is 294.160ha, out of which is 277.025 ha is patta land and 17.135 ha is Govt. Land. Further PP, submitted that Department of Mines and Geology, Government of Chhattisgarh has approved transfer of LOI(Letter of Intent) from M/s. Lafarge India Pvt. Limited to Nuvoco Vistas Corporation Limited vide letter no 3- 86/2007/12(2) dated 03.11.2017 for Sonadih Limestone Mine (ML-1) mining project with production capacity of 5.50MTPA. The mine is located in Villages- Sonadih, Dhabadih, Raseda, Keshdabri, Baloda Bazar, Tehsil- & Balodabazar-Bhatapara District, Chhattisgarh in 294.160 ha.

Comment of PD: 1. Ministry raised EDS on 11.09.2018 for submission of "Valid executed lease document or valid LOI in the name of M/s. Nuvoco Vistas Corporation Ltd. showing valid executed lease document or valid LOI as on date." PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the requisite document.

2. Ministry raised EDS on 10.12.2019 for submission of "Authenticated English translated copy of LOI/Lease document." PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted Authenticated English translated copy of LOI/Lease document.

5. PP submitted that Mining Plan along with Progressive Mine Closure Plan of above area was approved by Indian Bureau of Mines (IBM) vide letter No. Balodaba/Chup/khayo-51/2016-Raipur dated 3rd October 2016. Thereafter IBM approved the name change for approved mining in the name NUVOCO vide letter No. RPR-1309/02/2017-MINING PLAN-VolI-II/192 dated 09.05.2018.

The total mineral resources of the mine are estimated to be about 156796437 tonnes (156.80 million tonnes) out of which the probable reserves are estimated as 97264403 tonnes (97.264 million tonnes) of limestone, which will last for 18 years with the average rate of production of 5.5 million tonnes per annum. At the end of the mine about 176.98 ha up to a maximum depth of 30 m (upto a level of 205 mRL) from surface level in the form of five benches will be mined. After the exhaustion of entire mineable limestone, Block 2 will be backfilled by generated OB/waste and remaining mined out pit will be converted in to water tank for utilization in irrigation purpose. The water reservoir will be properly fenced by barbed wire or a bund will be constructed outside the water reservoir during the closure of the mine Part of the Mined-out area will be converted into a water reservoir for storing storm/rain water which would help to recharge the ground water table in the area and balance area will be backfilled as mentioned above. Any side/ inter burden / sub-grade mineral generated will be utilized in blending with high grade material Hence there will be no left over OB or reject dump at conceptual stage. Prior to the final closure of mine, mined out area will be protected by fencing and green belt will be developed all around it by planting suitable species of trees.

Comment of PD: Ministry raised EDS on 11.09.2018 for submission of “Valid Mine plan approval letter in the name of M/s. Nuvoco Vistas Corporation Ltd.” PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the requisite document as letter letter No. RPR-1309/02/2017-MINING PLAN-VolI-II/192 dated 09.05.2018 from IBM.

6. The PP submitted that the mine is proposed to operated by the conventional open cast method of mining, which includes drilling, blasting, loading and transportation by deploying heavy earth moving machineries. The machinery and other infrastructure planned ML-1 (294.16 ha) is inclusive of the equipment available at the present mine. The excavated limestone will be transported by dumpers to crusher located in the cement plant which is adjacent to the ML area. The drilling of holes will be done by 104 mm crawler mounted drill. The quantity of rock broken/hole of 8 m depth with sub-drilling of around 10%. During the blasting, all Rules, Regulations and Precautionary and safety measures will be taken. The blasting area will be covered by red flags at appropriate safety distance. Operators and workers will be removed to safety distance and blasting will be conducted by a qualified / certified blaster. Loading will be carried out by hydraulic excavators of 5.1 cu. m bucket capacity. The limestone will be loaded into 35 tonner dumpers for loading and transportation of limestone. The crushed the material will be directly transported to cement plant after crushing and screening through

belt conveyor.

7. PP submitted that the maximum depth of working will be 28 m from surface level which is above the water table. The depth of ground water level near mining lease area in pre & post monsoon are found to be 35 to 45 mbgl & 30 to 35 mbgl respectively. PP submitted that the source of water required will be through intake well for which they have got agreement with Water Resource Department dated 22.10.2010. Mining activity will not intersect ground water table hence permission under Ministry's O.M No. 21-103/2015-IA-III is not required. PP submitted that Shivrath River flows at 0.9 km North from this lease boundary. Garland drains with sedimentation pits all along the mine pit will be constructed to arrest the carryover of silt from the mine area. Check dam will be constructed at the discharge end of garland drains. Whatever water gets collected in the mine pit either as direct rainfall falling in the pit will be collected in the sumps and pumped back for road spraying, green belt. Balance water, free from suspended particles, will be released for supplying to nearby villages or released in the nearby stream outside the lease area. The mine workings will be above the water table throughout the life of the mine. Ground water will not be intersected. NUVOCO will use about 100 m³/day of water for dust suppression, greenbelt development and Domestic Purpose. The wastewater generated from the domestic front is mainly from toilets and canteen. Domestic wastewater - 8 m³/day. This water is treated in Septic tank followed by Soak pit.

Comment of PD: 1. Ministry raised EDS on 11.09.2018 for submission of "Please state whether ground water intersection will take place, if so, NOC from CGWA." PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the there will be no ground water intersection during mining. The mine workings will be above the water table throughout the life of the mine. The ground water level monitored around the area was found to be in the range of 30-35 meter. Ultimate depth of mining operations is 28 m depth from surface level which is above from the water table. Mining Plan is also approved for the same and also mentions the mining and ground water depth. PP has submitted the copy of approved mining plan.

2. PP has not uploaded the agreement copy dated 22.10.2010 made with Water Resource Department.

8. PP submitted that total 10000 saplings covering 5 Ha area (@2,000 saplings per hectares) in the next 5 years. PP submitted that species such as **Karanj**, *Khamar, Akesia, Gulmohar, Sal, Mango, Jamun, Amrud, etc, are the common species which are planted and this will be continued in future.* PP reported that after this plan period, about 25 Ha additional area will be covered by plantation in every five years. (1st Five Year Plan – 10000 saplings in 5 ha, 2nd Five Year Plan – 50000 saplings in 25 ha, 3rd Five Year Plan – 50000 saplings in 25 ha and Last 3 year Plan - 50000 saplings in 25 ha). **Thus, the total area no. of saplings planted will be 160000 in an area of 80 Ha.** PP submitted that the budget earmarked for the plantation shall be Rs 10 lakhs.

9. PP submitted that total mine lease area is 294.160ha, out of which is 277.025 ha is patta land and 17.135 ha is Govt. Land. There is no forest land within the ML area. PP has submitted a letter issued by DFO, Balodabazar vide letter No. 607 dated 08.02.2019 certifying **that** the said mine lease area does not involve the forest land. Further, PP informed that there are no eco sensitive areas like National Parks, Wildlife Sanctuaries, Biosphere Reserves, Elephant Corridor, Mangroves, Archaeological/ Historical Monuments, Heritage sites, etc. exist within 10 km radius area from the ML boundary. Nearest Reserved Forests from the Mine site are Mohtara RF - 0.6 km – South, Latwa RF - 3.8 km in South West and Sonbarsa RF - 1.7 km- WSW.

Comment of PD: Ministry raised EDS on 11.09.2018 for submission of “Letter from state forest department stating that there is no forest land involved in the mine lease area.” PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the requisite document as letter No. 607 dated 08.02.2019 from DFO, Balodabazar certifying that the said mine lease area does not involve the forest land.

Schedule-1 Species & Wildlife Conservation Plan: PP has reported that there is a presence of Schedule-I species (Peacock and Monitor Lizard). PP has submitted wildlife conservation plan with a budget of Rs 180 Lakh for 5 years. The same has been approved by Principal Chief Conservator of Forest (Wildlife) vide its letter No Va.Pra./Prabandh-449/2019/3623 dated 26.06.2019.

Comment of PD: Ministry raised EDS on 11.09.2018 for submission of “Letter from state forest department stating that there is no schedule-1 species found in the mine lease area.” PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted the a Wildlife Conservation plan approved by Principal Chief Conservator of Forest (Wildlife) vide its letter No Va.Pra./Prabandh-449/2019/3623 dated 26.06.2019.

11. **Being** a Major Mineral there is no requirement of District Survey Report.

12. Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected for winter season, 2016-17 covering the months of December 2016 to February 2017 on hourly basis. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2016 to February 2017 have been reported well within the prescribed NAASQ limits.

13. The Project Proponent reported that Public Hearing for the project was conducted on 04.05.2018 by Chhattisgarh Environment Conservation Board. The advertisement for public hearing was published in “Hindustan Times” on 01.04.2018 and Dainik Bhaskar on 31.03.2018. The Public hearing was conducted under the chairmanship of District Magistrate, Balodabazar, Chhattisgarh. The issues raised during public hearing were also deliberated during the meeting are mainly on employment and providing the medical

facilities, educational facilities, bus facility, laying of Roads etc. PP has also made budgetary provisions in the form of CER, EMP and CSR to address the issues raised during Public consultation.

Comment of PD: Ministry raised EDS on 11.09.2018 for submission of “English translation of PH minutes.” PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted English translation of PH minutes.

14. PP submitted that Corporate Environment Responsibility (CER) Budget towards capital expenditure in accordance to the MoEF&CC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018 for Social Welfare Measures has been worked out for new mine capital cost of Rs 150 crores under Greenfield **project**. Based on the same, a budget of Rs. 2.75 Crores has been allotted towards capital expenditure for Corporate Environment Responsibility (CER) which includes Rs. 60 lakhs towards Construction and repair of Road of Raseda - 600 mts, Dhabdih - 550 mts, Rasedi 430 mts, Sonadih 1000 mts , (4500/- per cubic meter), Rs. 35 lakhs towards Pond De-siltation - Raseda and Dhabadih villages, Rs. 20 lakhs towards Providing equipments and other infrastructure support to start 5 Nos of smart classes in affected village school . @ Approxi4-5 Lakh/School, Rs. 65 lakhs towards providing medical facility in the affected villages with provision of medicines and check up, Rs. 60 lakhs towards Water Facility- Laying of water pipe line from Mines pit to Sonadih village dam, digging /repairing of Bore well and Rs. 35 lakhs towards Plantation under 'Harihar Chhattisgarh' on the land allotted by Distt. Administration (Local species Neem, cassasimea , Jamun , Awala, etc.).

15. PP has submitted that 04 nos. of villages falls under R&R wherein no. of Project Affected Families (PAFs) are 100. The Funds Allocated for R&R is Rs. 100 Lakhs. PP has stated that in Form 2 that R&R is in progress.

16. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 51.0 Lakh (Capital) & ₹ 48.0 Lakh (recurring/annum) which includes i) Rs 35.0 Lakh (Capital) & Rs 15.0 Lakh (recurring) for Dust Suppression Measures, ii) Rs 6.0 Lakh (Capital) & Rs 23.0 Lakh (recurring) for Environmental Monitoring, iii) Rs 10.0 Lakh (Capital) & Rs 10.0 Lakh (recurring) for Greenbelt Development.

17. PP submitted that the problem of occupational health, in the operation and maintenance phase is primarily due to dust and noise which could affect the workers from respiratory and hearing problems. The necessary personal protective equipments will be given to all the workers. Full-fledged hospital facilities will be available round the clock for attending emergency arising out of accidents, if any. All working personnel will be medically examined at least once in every year and at the end of his term of employment. This is in addition to the pre-employment medical examination.

Safety of both men and materials during construction and operation phases is of concern. Safety plan will be prepared and implemented in the proposed

expansion. The preparedness of an industry for the occurrence of possible disasters is known as emergency plan. The disaster is possible due to collapse of rock structures and fire/explosion etc. Keeping in view the safety requirement during construction, operation and maintenance phases a safety policy will be formulated. Posting of safety officers has been in accordance with the requirement of Factories Act/DGMS and their duties and responsibilities has been defined thereof. In order to fully develop the capabilities of the employees in identification of hazardous processes and improving safety and health, safety circles has been constituted in each area of work. The circle consists of 2-3 employees from that area. The circle normally meets for about an hour every week. A full-fledged training center has been set up at the plant. Safety training has been provided by the Safety Officers with the assistance of faculty members called from Professional Safety Institutions and Universities and is repeated from time to time. In addition to regular employees, limited contractor labors has also been provided safety training. To create safety awareness safety films are being shown to workers and leaflets are being distributed.

The health of all employees will be monitored once in a year for early detection of any ailment due to exposure of dust, heat and noise.

18. PP submitted an undertaking by the way of an affidavit bearing certificate No M 228161 dated 11.12.2019 to comply with all the statutory requirement and common cause judgment dated 2.08.2017. PP also submitted an undertaking that data and information given in the application, enclosure and other documents are true to best of his knowledge and belief and PP is aware that if any part of data or information submitted is found to be false or misleading at any stage the project will be rejected and clearance given if any will be revoked at his risk and cost. Consultant also submitted an undertaking that “M/s B.S. Envi-Tech Pvt. Ltd has complied with all the prescribed Terms of Reference (TOR) issued by Ministry of Environment, Forests & Climate Change (MoEF&CC) in preparation of Final ELA. Report for M/s. Nuvoco Vistas Corporation Limited which proposes Limestone production of 5.5 MTPA from Sonadih Limestone Mine (ML-1) (ML area: 294.160 Ha.) located at Villages - Sonadih, Dhabadih, Raseda & Keshdabri, Baloda Bazar Tehsil, Balodabazar-Bhatapara District, Chhattisgarh.”

Also, Managing Director, M/s B.S. Envi-Tech Pvt. Ltd confirms that the **mentioned** experts in EIA report prepared the Final EIA of M/s. Nuvoco Vistas Corporation Limited and that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Comment of PD: Ministry raised EDS on 10.12.2019 for submission of “Copy of affidavit needs to be submitted by PP in compliance of the Ministry’s OM no. 3-50/2017-IA.III (Pt.), dated 30th May, 2018.” PP vide its letter Ref: NUVOCO-SCP/ML1-MoEFCC/2019-20 dated 18.12.2019 submitted an undertaking by the way of an affidavit bearing certificate No M 228161 dated 11.12.2019.

19. Project Proponent submitted that The Project cost is estimated to be

about Rs. 150 crores and Rs. 51 Lacs will be spent for implementing **Environmental** Management Plan and the recurring cost is estimated to be about Rs. 48 Lacs/annum and shall give direct employment to 113 persons.

20. The application for grant of Environmental Clearance was made vide proposal No. IA/CG/MIN/72229/2016 dated 05.08.2018 in the name of M/s Lafarge India Limited and Ministry raised EDS on 11.09.2018. Application was re-submitted on 18.11.2019 and the EDS were raised on 10.12.2019. PP replied to EDS vide letter dated 18.12.2019. In the meanwhile, PP applied for EC vide proposal No. IA/CG/MIN/72229/2016 dated 20.02.2020 and withdrawn the earlier application on 24.03.2020. PP also submitted EIA/EMP Report and other information required for appraisal of the project.

21. The proposal is now placed in the 15th EAC meeting held during 20-21 April, 2020. Based on the discussion held and document submitted the Committee **deferred** the proposal as some of the ToR points are not addressed properly, public hearing issues are not addressed properly and for want of following requisite information.

- i. *All ToR points shall be addressed properly and relevant information needs to be provided against each ToR Point.*
- ii. *Mining Plan and EIA Report needs to be crossed examined for land use and waste dumping as i) in the mining plan land use for remaining 21.75 Ha is not provided, in EIA/EMP Report it has mentioned that there will be no left over OB or reject dump at conceptual stage but in the land use plan 13.03 Ha is shown under OB/Waste dump.*
- iii. *Agreement made with Water Resources Department needs to be submitted. In addition to PP needs to submit a plan with timeline so that mine will become self-sufficient for its water requirement and water from external source will be not required.*
- iv. *Plantation schedule needs to be revised so that maximum plantation can be completed within a period of 5 years and for the remaining period only progressive plantation and gap filling needs to be done to maintain a density of plantation of at least 2500 saplings/ ha.*
- v. *PP shall submit the letter from Chief Wildlife Warden certifying the distance of mining lease from the protected area falling in 10 KM radius*
- vi. *Impact of mining activity on the reserve forest which is located at a distance of 0.6 KM.*
- vii. *List of Schedule-1 Species duly authenticated by PPCF (Wildlife) and based on the same conservation plan needs to be prepared. Proof of submission of conservation plan needs to be submitted. In case there is no change in list of schedule-1 species for which conservation plan has already been approved then a letter from PCCF (wildlife) may be submitted to the effect that there are no schedule-1 species in the core and buffer*

zone of the mining lease, other than what mentioned in approved conservation plan.

- viii. Cumulative impact needs to be calculated considering the existing mines, existing cement plant and proposed mines. Lead distance mentioned in the EIA/EMP report needs to be examined and modeling should be done based on the actual distances.*
- ix. Public Hearing Points needs to be addressed properly, and compliance of commitment previously made during PH of the existing mines and cement plant needs to be submitted.*
- x. There is habitation in the mining lease area, therefore R&R Plan needs to be submitted. There is some issue in the PH regarding purchase of land. Therefore, complete details of compensation paid to project affected families and persons needs to be submitted.*
- xi. PP needs to submit in a tabular format, the year wise total excavation, waste generation, top soil generation and utilization, back filling plan, area of dump yard, quantity of waste etc. along with conceptual plan prepared for every five years over the life of mine to ascertain the progress of mines over the years.*
- xii. As the mine is not contiguous location of weighbridges and transportation route needs to be submitted for each mining block. Feasibility of conveyor transportation needs to be submitted.*
- xiii. What is the source of water for the cement plant and existing mining lease? Source of data for ground water level calculation needs to be submitted.*
- xiv. Public health implications, safety issues etc. needs to be addressed properly.*
- xv. It is not clear whether the canal is made up of concrete or not. There is a sudden dead end of canal and no reason was provided for the same. Therefore, a Study needs to be submitted which clearly bring out the complete details about the canal and safety measure to be taken for mining near canal, inter alia, including the safe distance of mining; method of mining / blasting proposed; measures against the blast induced vibrations; and NOC from the concerned authority for mining near canal.*
- xvi. PP needs to bring out the details of the area to be put up under mining and left under safety zone (viz. around canal, electric line, railway line, public roads, statutory barrier etc.). The amount of mineral available after the same and blocked in safety zone.*

22. The same was informed by **Ministry vide letter dated 29.04.2020** for submission of requisite information. **PP vide its letter dated 21.05.2020** has submitted the following information/clarification:

1. PP has submitted the revised EIA/EMP report.

2. Pointwise compliance to MoEFCC ADS points raised vide letter dated 29th April, 2020.

S. No.	Point	Compliance Status and Reference in Revised EIA Report
i.	All ToR points shall be addressed properly and relevant information needs to be provided against each ToR Point.	All points are addressed with relevant information. Compliance of TOR points and its reference in the revised EIA Report are enclosed as Annexure - 1 F.
ii.	Mining Plan and EIA Report needs to be crossed examined for land use and waste dumping as i) in the mining plan land use for remaining 21.75 Ha is not provided, in EIA/EMP Report it has mentioned that there will be no left over OB or reject dump at conceptual stage but in the land use plan 13.03 Ha is shown under OB/Waste dump.	As mentioned in the Land-use para of the Approved mining plan (para 7.20) and Revised EIA report (Chapter-2, Para 2.8.6, Table 2.11, Page - 32), total 272.411 ha of the mining lease the area will be utilized for excavation, road, infrastructure, OB dump and Plantation up to the conceptual stage. Hence, the remaining 21.75 ha of the non-mineralized area will stay undisturbed and not be utilized for any of the purposes during the course of mining operation up to the conceptual stage.
iii.	Agreement made with Water Resources Department needs to be submitted. In addition to PP needs to submit a plan with timeline so that mine will become self-sufficient for its water requirement and water from external source will be not required.	NUVOCO has Agreement with Executive Engineer, Water Resources Department, Raipur for water drawl from River Seonath - 2.0 cusec/ month i.e., 4896 m ³ /day (copy enclosed as Annexure - 4 D to the letter by PP.) Mine will become self sufficient for its water requirement by the end of 3rd year. Details are provided in Chapter - 4, Table - 4.10 Page no 130.
iv.	Plantation schedule needs to be revised so that maximum plantation can be completed within a period of 5 years and for the remaining period only progressive plantation	Greenbelt developed is planned in the below areas: a. 80 Ha - Non Mining Area Including 7.5 m barrier b. 16.83 Ha - Backfilling area

	and gap filling needs to be done to maintain a density of plantation of at least 2500 saplings/ha.	<p>c. 13.03 Ha – Dump area</p> <p>The plantation program is planned to cover maximum area in the first five years i.e 80 Ha. Balance area of 13.03 Ha of Dump and 16.83 Ha of Backfilling are based on the planned mining operations.</p> <p>Dumping will be completed at the end of 8th year and plantation commences from 9th year onwards. Similarly, Backfilling commences in 9th year and will continue upto 16th year. Plantation on backfilling area commences in 16th year.</p> <p>Details of plantation along with budget are provided in Chapter – 4, Para 4.5.7, Table – 4.20 Page no.149</p>
v.	PP shall submit the letter from Chief Wildlife Warden certifying the distance of mining lease from the protected area falling in 10 KM radius	Mohtara Reserved Forest is located at a distance of 0.6 km from the Southern boundary of Mining lease. The distance of the Mohtara Reserved Forest is mentioned in the PCCF Approved Conservation Plan in Page no 29 (Approved conservation plan is enclosed as Annexure – 4 F to the letter by PP)
vi.	Impact of mining activity on the reserve forest which is located at a distance of 0.6 KM.	<p>Impact of mining operations on Mohtara Reserve Forest located at a distance of 0.6 KM will be marginal.</p> <p>Details of the Impact and measures proposed are given in Chapter -4, Para 4.5.8, Page No 148</p>
vii.	List of Schedule-1 Species duly authenticated by PPCF (Wildlife) and based on the	We have submitted the letter dated 04.04.2019 to Principal Chief Conservator of Forest and Chief Wild

	<p>same conservation plan needs to be prepared. Proof of submission of conservation plan needs to be submitted. In case there is no change in list of schedule-1 species for which conservation plan has already been approved then a letter from PCCF (wildlife) may be submitted to the effect that there are no schedule-1 species in the core and buffer zone of the mining lease, other than what mentioned in approved conservation plan.</p>	<p>Life Warden (Copy enclosed as Exhibit - 1 to this ADS compliance) enclosing the detailed biological study of the core and buffer zone of the study area and the revised conservation plan.</p> <p>Principal Chief Conservator of Forest and Chief Wild Life Warden vide letter no. 449/2019/3623 dated 26.06.2019 has accorded approval of the detailed biological study, status of faunal diversity and Schedule-I species recorded in the study area and Wild Life Conservation Plan with the total Budget Provision of Rs 180 Lakh.</p> <p>There are two Schedule-I species in the study area i.e Peacock and Monitor Lizard. List of Species are mentioned in the PCCF approved conservation plan in Page no 38. Approval letter along with Approved Conservation plan is enclosed as Annexure - 4 F to the letter by PP.</p> <p>Principal Chief Conservator of Forest and Chief Wild Life Warden office vide letter no. 1879 dated 19.05.2020 (Copy enclosed as Exhibit - 2 to this ADS compliance) has reaffirmed the two Schedule-I species in the study area i.e Peacock and Monitor Lizard and no forest land in proposed Mining Lease area.</p>
viii.	<p>Cumulative impact needs to be calculated considering the existing mines, existing cement plant and proposed mines. Lead distance mentioned in the EIA/EMP report needs to be examined and modeling should be done based on the actual distances.</p>	<p>Cumulative impact has been assessed considering the proposed emissions of Subject mine with total excavation and proposed expansion of the cement plant which includes new line of 1.6 MTPA clinker, 2.0 MTPA Cement and 75 MW coal based Power Plant.</p> <p>The lead distance has been revised to 4.4 km (two way) for limestone transport and 4.6 km (two way) for Top</p>

		<p>soil/OB waste transport.</p> <p>Details of cumulative impact are presented in Chapter -4, Para 4.1.6, Page 113</p>
ix.	<p>Public Hearing Points needs to be addressed properly, and compliance of commitment previously made during PH of the existing mines and cement plant needs to be submitted.</p>	<p>The response to Public Hearing Points are revised and is enclosed as Annexure – 7 B</p> <p>Compliance of commitment made during previous Public Hearing of the existing mine and cement plant are enclosed with this ADS compliance as Exhibit-3 and Exhibit-4</p>
x.	<p>There is habitation in the mining lease area, therefore R&R Plan needs to be submitted. There is some issue in the PH regarding purchase of land. Therefore, complete details of compensation paid to project affected families and persons needs to be submitted.</p>	<p>There are a total of 10 houses (6-8 families) located at the corner of Block-5. It is proposed to do mining at this block at in the 9th Year. These houses will be rehabilitated in 9th year. Nuvoco will not do mining in this block until it is rehabilitated. A detailed action plan on rehabilitation of these houses will be submitted to MOEFCC before commencing Mining operation in Block – 5.</p> <p>The issue in the PH regarding purchase of land is “During Tata’ s time land purchased without signature and promised that employment will given to children but not get till date, whenever we go for discussion they banished from out side, Case is going on, they extend the case date.</p> <p>Till date for acquiring 160 Ha of land, NUVOCO has paid Rs 2947 Lakhs compensation. The R & R adopted for acquiring the land is detailed in Chapter -4 Para 4.6.1, Page 156-161 A</p>

		detailed R&R Plan including the Income Restoration, Grievance cell and Monitoring mechanism is attached as Annexure- 4 G to the letter by PP.
xi.	PP needs to submit in a tabular format, the year wise total excavation, waste generation, top soil generation and utilization, back filling plan, area of dump yard, quantity of waste etc. along with conceptual plan prepared for every five years over the life of mine to ascertain the progress of mines over the years.	Tabular Format giving details of year wise total excavation, waste generation, top soil generation and utilization for back filling and dump yard alongwith quantity of waste is given Table – 4.19 of Chapter - 4 in Page No.147 Fig – 4.8 shows the conceptual plan with year wise backfilling and plantation programme in Chapter -4, Page No. 133
xii.	As the mine is not contiguous location of weighbridges and transportation route needs to be submitted for each mining block. Feasibility of conveyor transportation needs to be submitted.	Initially two weigh bridges will be installed in ML-1. Weighbridge No 1 will be installed in block no 2 and Weigh bridge No 2 will be installed in block no 3 as shown in above. The location of weigh bridges will be changed as per requirement. Location of Weigh Bridges and Mineral Transportation Route Is shown in Fig – 7.1 in Chapter - 7 Feasibility of limestone by Haul Road versus Overland Land Belt Conveyor (OLBC) has been explored. There is existing haul road for limestone transportation in existing mining lease. The limestone from block 2 and 3 can be transported through this route having a short haul distance of 3 to 5 km from mine site to crusher for material transportation. No public road or village area / infrastructure will be encountered en-route and land is in control of Nuvoco.

		<p>For Overland Land Belt Conveyor, minimum 25 meter of route gallery has to made from ML-1 to plant stacking site. The route will cross the existing mining lease. The mineral of 100meter width (50 meter each side) and approx. 2km will be blocked due OLBC.</p> <p>Further details of feasibility for limestone transport are provided under Chapter – 7, Para 7.3, Page - 189</p>
xiii.	<p>What is the source of water for the cement plant and existing mining lease? Source of data for ground water level calculation needs to be submitted.</p>	<p>Source of water for cement plant is River Sonadih. NUVOCO has Agreement with Executive Engineer, Water Resources Department, Raipur for water drawl from River Seonath - 2.0 cusec/ month i.e., 4896 m³/day.</p> <p>Source of water for existing mining lease is mine pit.</p> <p>Source of data for ground water level are :</p> <ul style="list-style-type: none"> ❖ Exploration carried out by NUVOCO as part of limestone reserves estimation through core drilling in the subject mine. ❖ Operating adjacent mine which has reached ultimate depth and no ground water seepage till date.
xiv.	<p>Public health implications, safety issues etc. needs to be addressed properly.</p>	<p>Impact of mining on various Environmental components leading to Impact on Public health are detailed in Chapter – 4, Para 4.8, Page – 166, Table – 4.28.</p> <p>The data was also collected from the Rural Health Organiser, Sub Health Center, Raseda. The letter of the same is placed for information. (Enclosed Annexure – 4H to the letter by PP) As per the data available the general disorders like Malaria, Typhoid, Viral</p>

		<p>Fever, jaundice and Diarrhoea are the most contracted by the persons locally. This indicates that out of these disorders, there is no impact on public health due to the existing mining operations which is adjacent to subject mine.</p>
<p>xv.</p>	<p>It is not clear whether the canal is made up of concrete or not. There is a sudden dead end of canal and no reason was provided for the same. Therefore, a Study needs to be submitted which clearly bring out the complete details about the canal and safety measure to be taken for mining near canal,inter alia, including the safe distance of mining; method of mining / blasting proposed; measures against the blast induced vibrations; and NOC from the concerned authority for mining near canal.</p>	<p>Canals are located outside the mining lease area. All canals in proximity are unlined kachha canals. Canal network and photographs of the canal are shown in Fig - 4.9 and Fig - 4.10</p> <p>There is no command area in the downstream of the canal, hence there is a dead end.</p> <p>Blasting Study was conducted by M/s Central Institute Of Mining & Fuel Research (Council Of Scientific & Industrial Research) CIMFR. based on the characteristic of blast wave propagation under similar strata condition of existing Sonadih Limestone Mine located adjacent to the proposed mining lease area. The nature and variation of strata is taken similar. The detailed Blasting Report is enclosed as Annexure - 2 A.</p> <p>The following blasting zones have been classified and Blast design Parameters are recommended for controlled blasting in the nearby of different surface features.</p> <ul style="list-style-type: none"> ❖ 50 - 100 m Zone from canal and other important surface features ❖ 100 - 300 m Zone from canal and other important surface features ❖ Beyond 300 m from canal and other important surface features <p>The blasting parameters for the above</p>

		<p>zones alongwith safety measures proposed for protection of canals are detailed in Chapter – 4, Para 4.5.4, Page 139 -143.</p> <p>Executive Engineer Water Management Division - 2, Balodabazar Dist. Balodabazar - Bhatapara (CG) vide letter no 1118/Karya/2020 -21 dated 12/05/2020 informed that at present, no right has been granted by Government of Chhattisgarh to carry out any mining operations over the proposed area.</p> <p>NOC will be issued to start the mining operation and other activities after mining lease deed execution with Govt. of Chhattisgarh over the said area,</p> <p>Letter from Office of Executive Engineer Water Management Division -2 , Balodabazar dist Balodabazar-Bhatapara (CG) along with English Translation is enclosed as Annexure – 4 E to the letter by PP.</p>
xvi.	<p>PP needs to bring out the details of the area to be put up under mining and left under safety zone (viz. around canal, electric line, railway line, public roads, statutory barrier etc.). The amount of mineral available after the same and blocked in safety zone.</p>	<p>The total Limestone reserves are 156.79. Mineable reserves are 97.26 million tonnes and blocked reserves are 46.94 million tonnes. Details are furnished in Chapter -2, Para 2.8.5, Table -2.10, Page 31.</p>

23. The committee after detailed deliberations on the reply to ADS points submitted by the PP, is of the view that the boundary of the block-1 and Block-2 on the Northenside is just adjacent to the Sonadih village. The easternboundary of the Block-3 also intersecting the boundary of village Raseda and some of the Habitations are falling within the Mine Boundary. The PP informed that the waste generated from the proposed mine will be dumped in the Block-I area and northenside of the Block-2. Further, some

are will be left as non-mining area in the Block-3 towards Raseda village. The committee is of the view that project proponent did not considered the environmental implication of associated with the mining operations on the surrounding villages of Sonadih and Raseda. The committee suggested to explore the possibility of the dumping the waste in the voids available or may be available in future in the existing mines adjacent to the proposed block-2 instead of dumping on the northern side of the Block-1 and Block-2 which is adjacent to the Sonadih village and will have the impact of windborne dust from the dumps. Further, the committee also suggested to explore the possibility of the sequential mining so that the void created in one block can be utilized for dumping of waste generated from the mining of the subsequent block(s). Therefore, **the proposal is deferred** for submission of the revised mining plan by leaving atleast 300 m as non-mining area and proposed with green barrier against the Sonadih village in the northern part of the Block-1 and Block-2 and against the Raeda village on eastern part of the Block-3. The committee desired to submit the following details/documents for further consideration of the proposal

- i. PP may explore the possibility of sequential operation and concurrent backfilling in the void already created in the existing mines based on excavation plan of both the mines and ensure that earliest backfilling can be done, no fresh land for dumping of waste and to avoid dumping close to the habitation.
- ii. Area to be kept as a safety zone near the habitation/no mining zone, effective area under mining, location of dumps if any and plantation on the same needs to be submitted.
- iii. Revised plantation plan needs to be submitted wherein the plantation around the lease boundary to be completed within 2 years and rest of the plantation in the 5 years. In addition to progressive plantation for gap filling, backfilling sites and dump site needs to be provided. The sapling to be planted shall be atleast of 2 meter height and budget for the plantation shall be calculated accordingly.
- iv. Letter from Chief Wildlife Warden regarding distance of mining lease from the protected area, national park etc. needs to be submitted.

2.10 Mudhvay Limestone Mine Block 'C' of M/s Adani Cementation Limited with proposed production capacity of 12 million TPA in the mine lease area of 251.9 ha, the mine lease area is located at Govt land Survey No. '26P' Private Santhani Land Survey No. 26P7, 26P10, 26P22, 26P18, 26P41, 26P49, 26P33, 26P11, 26P42, 26P30, 26P57, 26P32, 26P25, 26P8, 26P52, 26P37, 26P9, 26P19, 26P27, 26P63, 26P47, 26P12, 8P1, 8P2, 8p9, 183, 26P10, 27P10, of Village: Mudhvay, Taluka: Lakhpat, District: Kutch, Gujarat.- [Proposal No: IA/GJ/MIN/70787/2017; File no: IA-J-11015/121/2017-IAII(M)] - Reconsideration of EC.

The proposal of M/s Adani Cementation Ltd is for mining of 12.0 MTPA

of limestone from Mudhvay Limestone Mine Block 'C' from the mine lease area of 251.9 ha, the mine lease area is located at Govt land Survey No. '26P' Private Santhani Land Survey No. 26P7, 26P10, 26P22, 26P18, 26P41, 26P49, 26P33, 26P11, 26P42, 26P30, 26P57, 26P32, 26P25, 26P8, 26P52, 26P37, 26P9, 26P19, 26P27, 26P63, 26P47, 26P12, 8P1, 8P2, 8p9, 183, 26P10, 27P10, of Village: Mudhvay, Taluka: Lakhpat, District: Kutch, Gujarat. The latitudes and longitudes of the Mine lease fall between Latitude: 23°42'43.6432" N to 23°43'59.9313" N and Longitude: - E 68°41'51.6687" E to 68°42'40.9420" E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a).

3. The PP applied online for grant of ToR on 12.11.2017 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent. The proposal was appraised in the EAC in its meeting held on 21-22 December, 2017 wherein the Committee recommended the TOR. Ministry granted the TOR vide letter no. J11015/121/2017-IA.II(M) dated 9th January, 2018 for Preparation of Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP).

4. PP submitted the EIA/EMP Report to Ministry for seeking environmental clearance and the proposal was considered in the EAC in its meeting held on January 30-31, 2020 wherein PP submitted the following:

5. The total mine lease area is 251.90 ha, comprises of 132.42ha (52.57%) of agricultural land and 119.48ha (47.43%) of open scrub land. The proponent submitted that the Letter of Intent (LOI) has been issued for winning mineral Limestone (cement grade) over an area of 251.90 ha by Department of Industries & Mines, Govt. of Gujarat vide letter no. MCR-102016- 2146-CHH dated 21.06.2017 for a period of 50 years from the date of mining lease execution.

6. PP reported that the Mining Plan Progressive Mine Closure Plan is approved by the Regional Controller of Mines, Indian Bureau of Mines, Gandhinagar vide letter no. पत्रसं. 684(4)(1)/MP-84 dated 03.01.2018 as per the approved mine plan the mining shall be carried out by fully mechanized opencast method using continuous surface miner (CSM) with combination of pay loader and dumpers/tippers. No drilling and blasting is required. The cutting depth of surface miner is 250-300mm and product size generated after cutting and milling in the range of 75-150mm. This size of limestone is suitable for cement plant without crushing. PP submitted that the working Bench height will be 6m and 15m width will be maintained respectively. The ultimate pit slope will be 450 and slope of over burden will be maintained at 700. Overburden waste is loose material thus, not required drilling and blasting. It can directly be mined with the help of excavator bucket and will be loaded in dumper/tippers. Overburden material will be stored at designated place as per approved mining plan inside the mine lease area. Surface miner is environment friendly machine and to be used in order to avoid blasting. No crushing of mineral limestone is required. PP also reported

that 0.3m cover of overburden sandy soil is available, the same during the mine plan OB will be dumped at designated place and will be re-handled and backfilling will be started in eighth year onwards, after getting part of worked out area matured for the same. The future Waste handling will vary based on the exploration plan of the Mining lease area and accordingly backfilling will be planned. It has been envisaged that after back-filling the entire excavated area of 112.30 Ha will have a void of about 30.0 m BG at the end of the conceptual period. The loading of excavated material by surface miner, is to be carried out by pay loader and transportation carried by dumper/tippers of 35 tonne capacity. The dumpers/tippers will carry material to transfer hopper of surface Belt conveyor. The Belt conveyor to be installed within the boundary barrier of boundary pillars C-07 to C-01. Limestone shall be conveyed to proposed cement plant along boundary barrier by surface Belt conveyor.

7. PP submitted that the Plantation will be carried out along statutory barrier as a green belt. The plantation will be done at the rate of 1000 saplings per Ha @ 1.0 Ha per year. The top soil removed during the mining process will be used for plantation purpose. At the end of mine life, about 83.50 Ha of lease area will be under plantation, out of which 5.00 Ha will be boundary greenbelt and 78.50 Ha will be plantation on reclaimed areas. The afforested area will be protected from cattle by fencing off the plantation area.

8. The PP reported that the Gujarat State Pollution Control Board conducted Public Hearing for the proposed project of Cement Plant of Production Capacity 10MTPA Clinker, 10MTPA Cement & 99 MW Cpp (Including 24MW WHRS); Limestone Mine for 12MTPA from 251.9ha Area and Berthing Jetty of 19MTPA Capacity, located Village: Maldo, Mudhvay, Koriyani & Kapurasi, Taluka: Lakhpat, District: Kutch, Gujarat State on 28.05.2019 at Village Koriyani, Taluka Lakhpat, District Kutch (Gujarat). The advertisement for public hearing was published in "Kutch mitra" and "The Indian Express" on 22.04.2019. The Public hearing was conducted under the chairmanship of Smt. Remya Mohan (I.A.S.), District Magistrate and District Collector Bhuj, Kutch and Dr. S.N Agravat, I/c Regional Officer, Gujarat Pollution Control Board, Regional office Kutch-west was also presented. The issues raised during public hearing were also deliberated during the meeting which includes, employment, drinking water facility, medical facility, skill development, infrastructure facility in school & village, implementation of pollution control measures, additional compensation, educational facilities, effect on agricultural crop production, road maintenance, employment to local people, etc. The PP interalia committed during public hearing that the project will employ around 630 persons per day during construction Phase and Preference will be given to local workers from the surrounding villages. During the operation phase, there will be direct around 150 persons and Indirectly more than 450 persons likely to give employment.

9. Baseline data was generated during winter season December 2017 to February 2018 for various environmental parameters including air, water (surface and ground water), land and soil, ecology and socio-economic status

to determine quality of the prevailing environmental settings. The noise level fluctuations in daytime and night time was observed and the maximum noise level in daytime observed was 50.4dB(A) at NQ6, S.K.Varmanagar and minimum noise level observed was 41.4 dB(A) at NQ3, Koriyani Village, the Leq value is slightly exceeding the prescribed limit of CPCB. The maximum noise level in night time observed was 42.9dB(A) at NQ6, S.K.Varmanagar and minimum noise level was 32.7 dB(A) at NQ8, Mudhvay. Particulate Matter (PM10) Maximum concentration was recorded in AAQ6, S.K Varmanagar(75.1µg/m³) and the minimum concentration was recorded in AAQ1-Onsite Mining Area (64.7µg/m³).The higher concentration of PM10 in AAQ6-SK Varmanagar due to attributed to its proximity to State Highway and the ongoing, construction activities in the vicinity and presence of commercial activities. As per the monitoring data, PM2.5 ranges between 23.3µg/m³ in AAQ1(Onsite ML Area) to 32.9µg/m³ in AAQ6 (S.K.Varmanagar). Further PP reported that the Surface and ground water sampling was carried out in 6 and 7 locations respectively. The analysis results indicate that the pH values of all the samples of Kori Creek are in the range of 7.9 (SW5, Kori Creek 3) to 8.1(SW4& SW6, Kori Creek2 &Kori Creek4) indicating alkaline characteristics. All values meet criteria A as per CPCB surface water quality standard. TDS was observed in the range of 39,747 mg/l at SW6 (Kori Creek 4) to 43,200.0 mg/l at SW3 (Kori Creek 1).

10. The total water requirement for the mining will be 250 KLD which will be sourced from desalination plant to be proposed in upcoming cement plant in the vicinity.

11. The total cost of the project shall be Rs. 7525/- Crore (Approx.) and the proposed project about 630 persons is will be recruit during construction phase, preference will be given to local workers. During the operation phase, 150 skilled workers will be directly and 450 persons indirectly will be recruit.

12. The mining plan is prepared with total excavation (Maximum peak production) of 12 MTPA Limestone, 5 MTPA Overburden and 0.08 MTPA Top soil.

13. The project Proponent submitted that in order to compensate for the potential damage/degradation of Commiphora wightii habitats ACL shall carry out 2.0 ha. of plantation through Kutch-West Forest Division, Bhuj. ACL will financially support to Kutch West Forest Division for improvement of wildlife habitat (Schedule I species) in the forest area. Rs. 453.5 lacs has been estimated for conservation measure under wild life conservation plan which includes provision of Vehicles for patrolling and water supply for wild animals (Tractor with water Tanker).

14. The project Proponent submitted that Mudhvay Limestone Mine Block 'C' does not fall under CRZ. Map showing demarcation of LTL, HTL, CRZ and Coastal features w.r.t. Mudhvay Limestone Mine Block 'C' and duly authenticated by Institute of Remote Sensing, Anna University submitted.

15. PP submitted that no court cases were pending against the project or

activity.

16. Based on the presentation made by PP and the discussion held, the Committee had deferred the proposal for want of following requisite information for further consideration.

- i. Detailed hydrogeological survey to be conducted in view of salinity ingress, if any in the mining process up to the conceptual pit limit. The aquifer characteristics shall be delineated with geophysical survey to assess impact on the ground water regime and mitigation measures.*
- ii. Stage wise reclamation plan of the mine up to the period of conceptual pit limit shall be provided in the environment management plan.*
- iii. The schedule of the occupational health survey shall be furnished in the Environmental management plan as per the ILO and DGMS rules.*
- iv. Slope stability criteria of the bench surfaces shall be furnished in the EIA report highlighting that the mined out benches shall be stabilised after completion of the mining without further land degradation as the strata is not hard. Stage wise plan including dump stabilisation also shall be furnished.*
- v. As the area is in close proximity to Narayan Sarover Wild life sanctuary, a study to assess the impact of mining activity on bird's Migratory path shall be conducted and mitigation plan for the same shall be incorporated in consultation with State Govt and the revised conservation plan to be submitted.*
- vi. Fodder development plan for the livestock to mitigate the impact on grazing land due to mining activity for the village of the vicinity shall be brought out in the socio economic development plan.*
- vii. Certificate from the state forest department stating that no forest land involved in the mining lease area.*
- viii. Water budget and details on water conservation plan to reduce the water requirement for mine shall be submitted.*
- ix. PP to submit revised CER based on the project cost of mine, with action plan incorporating the budget & R&R Plan for project affected families.*
- x. Public hearing concerns related to mining activity to be identified and addressed properly with budget allocation.*

17. The **Ministry vide its letter dated 06.03.2020** informed the PP about the same and requested to submit the requisite information. **PP vide its letter dated 30.04.2020** has submitted the information as point-wise below:

- i. Detailed hydrogeological survey to be conducted in view of salinity ingress, if any in the mining process up to the conceptual pit limit. The aquifer*

characteristics shall be delineated with geophysical survey to assess impact on the ground water regime and mitigation measures.

Submission by PP: Detailed Hydro-geological and Geo-physical survey to assess the impact of mining up to conceptual pit limit on sea water ingress towards ground water regime with mitigation measures is conducted between mine and coast during the period from 14th to 18th February, 2020 by recording 30 resistivity soundings along two sections from western boundary of the mine to nearest Kori creek, collection of 20 water samples from the surrounding area and construction of an exploratory bore hole to know the lithology of the area up to depth of 103 metres by M/s Hydro-Geosurvey Consultants Pvt. Ltd., Jodhpur. **Complete study report is enclosed as Attachment – 1 to the letter by PP.**

- ii. *Stage wise reclamation plan of the mine up to the period of conceptual pit limit shall be provided in the environment management plan.*

Submission by PP:

- OB in this deposit is mainly characterized by Top Soil, mix of Sandy soil, Clay, Siltstone and Mudstone.
- The generated top soil will be used for Green belt development simultaneously.
- OB Dumping will be carried out temporarily for which a single dump of 38Ha is proposed.
- Backfilling of temporary dump as well as Concurrent Backfilling shall start from 8th year onwards.

Year	OB/ Waste (mio. cum)	OB Disposal Method	Top Soil (mio. cum)	Top Soil Disposal Method
1st	1.704	38Ha is earmarked on the Northern part of Block for temporary dumping of OB. Same will be backfilled from 8 th year onward.	0.046	No stacking proposed, simultaneous utilization for plantation purposes
2nd	2.5		0.057	
3rd	0.734		0	
4th	0.686		0	
5th	0.021		0	
up to Conceptual	13.475	Dumping till 8 th year and then concurrent backfilling	0.22	
Total	19.12	Nil at the end of Conceptual period	0.32	Nil at the end of Conceptual period

The generated waste will be backfilled till conceptual stage through concurrent as well as from temporary dump re-handling, starting from southern side of ML area.

The stage wise detailed OB reclamation plan up to conceptual pit has been given below -

Year	Generated (in mio.cum)	To Temporary dump(in mio.cum)	OB Reclamation (in mio.cum)			Reclaimed Area(in Ha)
			From Dump	Concurrent	Total	
1 to 5	5.65	5.65	-	-	-	-
6 & 7	2.90	2.90	-	-	-	-
8 to 10	4.35	-	3.21	4.35	7.56	32.48
10 to 15	6.22	-	5.34	6.22	11.56	79.82
	19.12	8.55	8.55	10.57	19.12	112.30

5th Years Plans showing waste dump creation and systematic reclamation till conceptual plan is enclosed, as per approved mining plan. Summary of Stagewise reclamation plan is as under -

- Total waste generation envisaged till conceptual period is 19.12 Million cum
- Total waste available for backfilling envisaged till conceptual period is 24.85 Million cum (Considering 1.3 Swell Factor)
- Total void area envisaged till conceptual period is 112.30 Ha, which will be backfilled with generated OB
- Total 83.5 ha. will be developed as green cover including 78.5ha. back filled area and 5ha. along mine block boundary till conceptual stage of mining.

(PP has enclosed the plans and figures)

- iii. *The schedule of the occupational health survey shall be furnished in the Environmental management plant as per the ILO and DGMS rules.*

Submission by PP:

- As per Article-5 of ILO Safety & Health in Mines Convention, 1995 (No,176), Director General of Mines and Safety, India is the competent authority to monitor and regulate the various aspects of Health and Safety in Mines. (Copy of Mines Convention, 1995 - No,176 is enclosed as **Attachment 2**)

- DGMS, India has already adopted the ILO standards for occupational health and recommended the implementation of ILO Convention number 176 in mines during 10 & 11th Safety conferences.

Following are the occupational health Surveillance in Mining Industry measures proposed by DGMS, which Adani Cementation Limited will implement.

1. All chest radiographs of Initial and Periodical Medical Examinations in mines shall be classified for detection, diagnosis and documentation of pneumoconiosis in accordance with ILO classification for pneumoconiosis.
2. The PME Medical Officer in every PME centre of mines shall be trained in occupational health and use of ILO classification for pneumoconiosis.
3. Operating mechanized mines shall set up an Occupational Diseases Board consisting of one occupational Health Physician, one radiologist and one general physician.

Schedule of Medical Check-up as per Chapter 4, Rule 29(B) of Mines Rules 1955:

SN.	Schedule of Medical Check up	Employees Covered	Medical Test	Remarks
1	Initial Medical Examination	Every person employed in Mine	Eye Test, Audiometry Test, Lung Function Tests, Chest Measurement, Chest X-rays, etc.	At the time of recruitment of new employee
2	Periodical Medical Examination	Every person employed in Mine	Eye Test, Audiometry Test, Lung Function Tests, Chest Measurement, Chest X-rays, etc.	5 years to each employee and it will be arranged such that 20% of the employee will be covered every year. Employee more than 45 years shall be done at every 3 years

- iv. *Slope stability criteria of the bench surfaces shall be furnished in the EIA report highlighting that the mined out benches shall be stabilised after completion of the mining without further land degradation as the strata is not hard. Stage wise plan including dump stabilisation also shall be furnished.*

Submission by PP: Open pit design has been planned for Mudhway Limestone Mine Block 'C', considering the standard slope geometry and with respect to nearby operating mine, which is approved by Indian Bureau of Mines (IBM):

- Panandhro Lignite Mine located at about 9km towards SE of proposed mine is safely operating with similar open pit design having overall pit slope of 45 degrees.
- In general, overall slope angle of 45° is considered to be safe in opencast pit as per Directorate General of Mines Safety (DGMS),

The broad parameters of conceptual mine design are as below:

- Bench height : 6.0 m (max.) in Overburden & Mineral Both
- Bench width : In Limestone – Optimum
In Soil – Optimum
In Overburden – Optimum
- Bench slope : In Limestone Strata at 70°
In Loose Strata from 35Degree to 45degree
- Ultimate pit slope : ~ 45°

The above bench parameters are planned with following Safety Measures during Mining Operation

- Drilling & Blasting not proposed
- Eco friendly mining operation using Surface Miner.
- Using surface miner, pay loaders and dumpers/tippers are safe and steady in operation with minimum dust generation and noise.
- Minimum safe distance of 50m will be kept between surface edge of quarry and nearest public building, roads etc.
- Mining operations within the quarry and outside will be conducted as per the conditions laid down by DGMS and under strict supervision of competent persons appointed under Metalliferous Mine Regulation Act, 1961.

- Bench slopes will be stabilized by using anchor bolts where ever required.
- However, the slope stability study will be carried out as per new MMR guidelines in future.

Five Years Plans showing waste dump creation and conceptual plan is discussed under Point No. II and shown as Figure 1 to 8, from approved mining plan from Indian Bureau of Mines.

Plan for Dump Stabilization will be as under –

- The geometry of the OB Dump is as follows:
 - Total Height of Dump : 30.0m (max)
 - Height of each Terrace : 10m
 - Clearance between Terraces : >15m
 - Terrace Slope : 35°
 - Ultimate Dump Slope : ~22°
 - The slope stability of waste rock dumps will be maintained with overall angle of 22° and the individual terrace slopes will be 35°.
 - Terracing at each 10.0m shall be provided of 10m width for easy movement and safety of dump.
 - Garland drain to be prepared to drains out rain water along with settling tank at suitable locations to prevent wash off.
 - Settling tanks will be constructed at suitable places from where silt deposit will be collected.
 - Berm shall be provided at every terraces in order to prevent gully formations
 - Catch drain is also proposed in order to channeling of rain water.
 - In order to temporary stabilization of dump, grass seeds to be spread on slope surface.
- v. *As the area is in close proximity to Narayan Sarover Wild life sanctuary, a study to assess the impact of mining activity on bird's Migratory path shall be conducted and mitigation plan for the same shall be incorporated in consultation with State Govt and the revised conservation plan to be submitted.*

Submission by PP: Assessment of impact of Limestone mining on migratory bird's path and mitigation plan w.r.t. Mudhvay Limestone Mine

Block 'C' as supplementary report to existing Ecological Study & Wildlife Conservation Plan for Integrated Cement Plant and Mining at Lakhpat, Kutchh, Gujarat, is prepared based on survey conducted between 5th February 2020 to 7th March 2020 by M/s Bhagvati Enviro Care Pvt. Ltd., Ahmedabad. Complete study report is enclosed as **Attachment – 3 to the letter by PP.**

- vi. *Fodder development plan for the livestock to mitigate the impact on grazing land due to mining activity for the village of the vicinity shall be brought out in the socio economic development plan.*

Submission by PP: There is no grazing land within Mudhvay Limestone Mine Block 'C' area. Hence, no impact on grazing land due to mining activity is considered.

However, **Adani Cementation Limited** aims to provide following activities to be implemented effectively in the village of the vicinity for socio economic development:

- Promote supply of quality seeds,
- Promote production of fodder crops,
- Extending fodder cultivation to currently unutilized lands outside ML area
- Promotion of dual purpose varieties of crops which has the potential of meeting fodder requirements in Season and off-season,
- Promotion of non-traditional fodder,
- Post-harvest technologies for preservation of fodder,
- Promote conservation of fodder by converting crop residues into fodder blocks through use of modern technologies, bailing machines etc.
- Establish silage-making units to preserve surplus fodder for feeding during lean periods.
- Promote cultivation of superior variety of fodder for fodder seed (breeder, foundation and certified seed) production by creating assured market.
- Reduce wastage by encouraging chopping of fodder to promote better utilization.
- Promotion of area specific mineral mixture for livestock feeding to meet specific deficiency of macro and micro- minerals
- Conducting training program to educate dairy farmers.

Time Bound Action Plan with Budget

Issues raised	Commitment of PP	Action plan	Timeline	Budget
Agriculture & Animal Husbandry Support.	Contribution in various govt. schemes Scientific support and awareness to local farmers	Fodder distribution during stress period Seed and Fertilizers distribution Financial support to ongoing Govt. schemes	In first 3 Years	Rs. 35 Lakhs. (Rs. 5 Lakhs spent on Fodder Distribution)

vii. *Certificate from the state forest department stating that no forest land involved in the mining lease area.*

Submission of PP:

- ACL has won Mudhvay Sub-Block 'C' through e-auction issued by Industries & Mine Dept, Govt. of Gujarat
- As per Geological Report of tender document for Mudhvay Sub-Block 'C' following information has been drawn w.r.t. forest land:
 - 'Forest Land is NIL' in Mine Lease area mentioned under Table 2: Summary Information - Mudhvay Sub-Block 'C' (Page No. 19).
 - "No part of the Mudhvay Sub-block 'C' is in forest area" (Page 102)
 - Copy of Geological Report of tender document, highlighting above mentioned information provided during auction is enclosed as **Attachment - 4 to the letter by PP.**
 - Copy of correspondence letter from Chief conservation of forest given by Gov't of Gujarat at the time of auction along with tender document is enclosed as **Attachment - 5 to the letter by PP.**

viii. *Water budget and details on water conservation plan to reduce the water requirement for mine shall be submitted.*

Submitted by PP:

It has been estimated by modeling that average inflow of ground water in the mine during 1st five years of mining will be around 500 m³/day.

Mining Year	Water Inflow (m3/day)
First Year	211.65
Second Year	526.53
Third Year	616.02
Fourth Year	596.31
Fifth Year	546.15
Average	500.00

Out of 500 KLD of mine pit discharge, 225KLD will be used for dust suppression. Rest 275KLD will discharge to the percolation pond/ Local seasonal nala.

The break-up of the water requirement of all the facilities in the project is as follows:

Source	Desalination Plant	Recycled from Sewage	Mine Pit Water	
Purpose	Domestic use	Green belt	Dust Suppression	Unused
Consumption	25	15	225	275
Recycle	15	0	0	
Discharge	0	0	0	275

Water Conservation Measures:

- No ground water will be used for project activities including mining operations.
- Water will be conserved by means of both natural (Rain Water Harvesting) as well as artificial methods (Percolation Tanks)
- Treated Sewage recycled from Mine Office (15m³/day) will used for green belt development.
- Ground water inflow in the proposed mine shall be used for ground water recharging through dust suppression and plantation in ML area. Remaining water will be used for ground water recharge through designated percolation pond.
- Tanker mounted water sprinkler will be used for dust suppression of mine roads to utilize 225m³/day.
- 275m³/day will be taken to the nearest percolation pond.
- 8 percolation tanks are proposed to be deepened to accommodate major part of the surface runoff available in study area.

- ix. *PP to submit revised CER based on the project cost of mine, with action plan incorporating the budget & R&R Plan for project affected families.*

Submitted by PP:

Cost estimation for CER Budget has been considered on the basis of Slab rate stated in Ministry's O.M. dated 01/05/2018.

CAPEX Range (Rs. In Crs)		CAPEX	CER% #	Total CER Fund (Rs. In Crs)
From	To			
0	100	100	2.0%	2.0
101	500	133	1.5%	2.0
Total CAPEX of Project		233	1.7%	4.0

As per Slab rate stated in Ministry's O.M. dated 01/05/2018.

R&R plan for Project affected families of Mudhvay Limestone Mine:

ACL has adopted State Government R&R Policy as its R&R Policy.

We are offering below mentioned options for Land Acquisition, rehabilitation and resettlement.

- Land for Land: 145 Ha land identified in Village Panandhro (<2Kms from Project Site) or compensation for Land based on LARR, 2013
- Choice of annuity for safeguarding the interest of entire family.
- One-time assistance for house construction.
- Compensation for cattle shed/ petty shops.
- One-time resettlement allowance.
- One time grant artisan, small traders and certain other.
- Subsistence allowance @ Rs.3000 for 12 months/PDF.
- Transportation cost for shifting of family.
- Stamp duty @ 7.5% and registration fee @1% for land & house to the PAFs.
- R&R proposal in line with R&R policy of Government of Gujarat has been submitted to office of District Collector, Kutch for approval.

R&R Compensation Cost (Rs. In Lakhs) for Mudhvay Limestone Mine Block 'C'

S. No.	Particulars	Nos.	Rate (in Rs.)	Amount (Rs. In Lac)
1	One time assistance for house construction	17	5.76	97.92
2	Choice of annuity or employment	67	5.0	335
3	Subsistence allowance @ Rs. 3000 for 12 months / PDF	17	0.36	6.12
4	Transportation cost for shifting of family	17	0.50	8.5
5	One time resettlement allowance	17	0.50	8.5
6	Compensation for cattle shed / petty shop	17	0.25	4.25
7	One time grant artisan, small traders and certain others	17	0.25	4.25
8	Stamp duty @ 7.5% and registration fee @1% for land & house to the PAFs			8.32
Total				472.86

- x. *Public hearing concerns related to mining activity to be identified and addressed properly with budget allocation.*

Submission by PP: Public Notice for Public Hearing was advertised in Gujarati daily newspaper, “Kutchmitra” and English daily “The Indian Express” on 22/04/2019.

- The public hearing was conducted by Dr. S.N Agravat, I/c Regional Officer, Gujarat Pollution Control Board, Regional office Kutch-west and representative of Member Secretary, Gujarat Pollution Control Board on 28/05/2019 at 11:00 am at Village- Koriyani, Taluka – Lakhpat, District - Kutch.
- The public hearing was headed by Smt. Remya Mohan (I.A.S.), District Magistrate and District Collector Bhuj, Kutch and was attended by public and Gram Pradhan of the nearby villages.
- Total 28 representative raised issues during Public Hearing, summarized in the table by PP.

A need – based assessment study has been conducted and issues raised during public hearing have been addressed to identify the development activities required w.r.t. mine area. Budget allocation for addressing issues raised during Public Hearing:

Activities	Spent Till Today	Year - 1	Year - 2	Year - 3	Total
					(In crores)
Infrastructure development	0.05	0.08	0.48	0.09	0.7

Healthcare development	0.03	0	0.22	0.25	0.5
School infrastructure, facilities and support, library, science lab etc.)		0	0.29	0.41	0.7
Skill development		0.1	0.15	0.15	0.4
Water supply		0.3	0.3	0.3	0.9
Contribution to various Govt. Schemes (Swachh Bharat, Skill development etc.)	0.05	0.1	0.1	0.1	0.35
Plantation & Providing Seeds in Community Area		0.15	0.15	0.15	0.45
Total	0.13	0.73	1.69	1.45	4.0

Out of 28 representatives, only one person (Nurmamad Taiyab) from Mudhvay Village has turned out to present the following issues:

- **Issue Raised** :“I have got enough fodder which worth Rs. 30 thousand has been obtained. 20 cows’ dies after that Adani Sir came and they provided fodder, I won’t lie to you.”
- Estimated requirement of fodder for Mudhvay Village : Around 50TPA
- Estimated Budget of Fodder (@Rs. 10000/Tonne) : Rs. 5,00,000/- Per Year
- Total Budget for 3 Years : Rs. 15,00,000/-

Time Bound Action Plan with Budget

Issues raised	Commitment of PP	Action plan	Timeline	Budget
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<p>Training and Skill development, Local Employment</p>	<p>Skill development of people in project impact area. Promotion of self-working groups Traditional & Cultural Support</p>	<p>Industrial& Tech. skill development – 40 Personsfrom nearbyvillages Self-employmenttraini ng – 40 villagers from nearby villages Employment opportunity tothemarginalwor kersof projectimpactare abased onthe relevant skills, experience andMerit</p>	<p>In first 3 Years</p>	<p>Rs.40 Lakhs</p>
<p>Educatio n Support</p>	<p>Development of School infrastructure facilities Student welfare programmes</p>	<p>5 additional rooms at Primary Schools in nearby Villages Technical aid to ITI, Panadhro</p>	<p>In first 3 years</p>	<p>Rs. 70 Lakhs</p>
<p>Health Facilities</p>	<p>Organizing Health camps Provision of Public health center and ICU on wheel</p>	<p>Two nos. of mobile ICU</p>	<p>1st Mobile ICU at startof project and 2nd at commissio ning</p>	<p>Rs 50 Lakhs on mobile ICU. Rs. 3 Lakhs already spent on Health Camp and Distributi on of Wheelchai r and Equipmen t for differently abled person.</p>

Infrastru ctu re Developm en t	Infrastructure development in project impact area	Deepening of Godhtad Dam. Community Hall – Mudhvay Village Rain water harvesting System in 28 Villages Drinking Water arrangement	In first 3 Years	Rs. 160 Lakhs.
Environme n t Protection	Installation of Pollution control equipment	Adequate pollution control devices are envisaged for project area.	Considered in Project Cost	
	Mass plantation	Massplantation shallbe carried out in project impactVillages.	In first 3 Years	Rs. 45 Lakhs (For mass plantatio n)
Agricultur e &Animal Husbandr y Support.	Contribution in various govt. schemes Scientific support and Awareness to localfarmers	Fodder distribution during stress period Seed and Fertilizers distribution Financial support to ongoing Govt. schemes	In first 3 Years	Rs. 35 Lakhs. (Rs. 5 Lakhs already pent for Fodder Distribu tion)
Impact on existing Infrastru ctu re	No community structures such as schools, temples or community halls are getting	R & R activities Compensation for reconstruction Equivalentareaofl and Land compensation for landlosers	In first 3 Years	As per t the require

	affected.			ment
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18. After detailed deliberations, the committee recommended for grant of Environmental Clearance subject to the following specific conditions in addition to the standard conditions:

- i. As committed by the PP, no road transportation of the limestone shall be allowed from the crusher / Pit-head, to the linked cement plant.
- ii. The PP shall carryout the regular monitoring of the bird movement during the mining operations.
- iii. The PP shall carryout the study on the igress of the sea water upto 110 m through peziometric well to carryout the mining upto (-) 57 m as proposed or the quarry depth shall restrict to the (-) 50 m.
- iv. The minium width of terrace of the proposed waste dump shall not be less than 20 m.
- v. The total excavation shall not exceed to 17.08 MTPA, even during the rehandling of the waste dump from the mineralized area for void filling also.
- vi. Plantation shall be carried in 83.50 Ha of lease area at the end of life, inter aila, including 5.00 Ha shall be along the boundary of ML area within first two years of commencement of mining operations, species shall be native to the area and selected in consultation with state forest department, and plantation record shall be maintained, gap plantation shall be carried and grassing as per the directions of the Hon'ble SC.
- vii. PP shall implement the recommendation of a need – based assessment study and commitments on the issues raised during public hearing with fund the provision of Rs 4 Crs, as committed under CER. The record for the same shall be maintained and compliance status shall be reported to Regional office periodically along with the compliance report.
- viii. No ground water shall be used for project activities including mining operations.
- ix. No drilling and blasting shall be carried. As per the approved mine plan the mining shall be carried out by using continuous surface miner (CSM) with combination of pay loader and dumpers/tippers.

- x. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.

2.11 Narora Limestone Mine (ML Area 147.940 ha) of M/s. UltraTech Cement Ltd. with Limestone Production Capacity of 1.0 Million TPA (ROM), located at Villages Sonra, Hinauti & Narora, Tehsil Huzur, District Rewa, Madhya Pradesh [File No. J-11015/249/2014- IA.II(M); Proposal No. IA/MIN/MP/24024/2014] – Consideration of EC.

The proposal of M/s. UltraTech Cement Limited is for Narora Limestone Mine (ML Area: 147.940 ha) with Limestone Production Capacity 1.0 Million TPA, Overburden/Waste -1.2 Million TPA and Soil- 0.3 Million TPA. The mine lease is located at Villages Sonra, Hinauti & Narora, Tehsil Huzur, District Rewa, Madhya Pradesh. The mine lease area falls between Latitude-24030'20" to 24031'09" N and Longitude of 81008'32" to 81009'48" E. The mine lease area is located in Survey of India toposheet no G44V2 in core zone & G44V2, G44V3, G44V6, G44V7 in buffer zone. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. The Terms of references was granted by MoEFCC, vide letter no. J11015/249/2014-IA.II (M) dated 28.10.2014 in favor of M/s. Jai Prakash Associates Limited. Validity of ToR was extended vide letter dated 09.09.2016 which was valid up to 27.10.2017. Thereafter ToR was transferred in the name of UltraTech Cement Limited vide letter No. J11015/249/2014-IA.II (M) dated 27.10.2017 and Validity of the ToR was further extended by MoEF&CC from 27.10.2017 to 26.10.2018 vide letter no. J-11015/149/2014-IA.II (M) dated: 27.10.2017. The EIA/EMP Report was submitted online to the Ministry on 25.10.2018 for appraisal after conduction of public hearing on 01.09.2018.

“The proposal is earlier considered in the EAC Meeting held during January 22-23, 2019, wherein the Committee is of the view that since the mine lease has been transferred from M/s Jaiprakash Associates Limited to M/s Ultra Tech Cement Limited, accordingly the Mining Plan along with Progressive Mine Closure Plan dated 26.03.2009 should also be transferred in the name of M/s Ultra Tech Cement Limited. However, the PP has not transferred the Mining Plan along with Progressive Mine Closure Plan in the name of M/s Ultra Tech Cement Limited, and conducted the Public hearing without transfer of Mine plan in the name of M/s UltraTech Cement Limited. The Committee noted that the Public Hearing has been conducted based on the mine plan in favor of M/s Jaiprakash Associates Limited”.

The Committee therefore returned the proposal in the present form and recommended to that PP needs to first resolve the above mentioned issues.

3. PP submitted online application on PARIVESH portal and the proposal was placed 7th EAC Meeting held during July 30-31, 2019. PP made presentation before the committed and submitted as follows:

4. Total Mining Lease Area comprises of 147.940 ha, out of which 146.09 ha area is private land and 1.85 ha is Government land. Initially, the Mining Lease was granted in favor of M/s. Jai Prakash Associates Limited (JAL) by Mineral Resource Department, Government of Madhya Pradesh vide letter no. F 3-50/2007/12/1, Bhopal dated 22.06.2009. Mining lease was registered on 30.03.2011. Thereafter, some Cement Business of M/s. Jai Prakash Associates Limited (JAL) and Jaypee Cement Corporation Ltd. (JCCL) was transferred to UltraTech Cement Ltd (UTCL) by National Company Law Tribunal Bench (NCLTB) at Mumbai on 15.02.2017 in case of UTCL and NCLTB at Allahabad on 02.03.2017 in case of Sellers. Accordingly, the Mining Lease has been transferred to M/s. UltraTech Cement Limited by Mineral Resource Department, Government of Madhya Pradesh vide order no. F-3-50/2007/12/1 dated 25.05.2017 and same has been registered on 23.08.2017 and executed with effect from 10.08.2017 which is valid for thirty year upto 29.03.2041. Mining lease is valid upto 29.03.2061 as per section 8 (A) (3) of Mines and Minerals (Development & Regulation) Amendment Act, 2015.

5. The Mining Plan along with Progressive Mine Closure Plan vide letter no. 314(3)/2008-MCCM(C)/MP-48 dated 26.03.2009 over mine lease area of 147.940ha in the name of M/s Jaiprakash Associates Limited has been approved by The Controller of Mines (CZ), Indian Bureau of Mines (IBM), Nagpur. Further the mine lease was transferred from M/s Jaiprakash Associates Limited to M/s Ultra Tech Cement Limited. Review of Mining Plan along with the Progressive Mine Closure Plan in the name of M/s UltraTech Cement Limited vide letter Mp/Rewa/Limestone/RMP-80/2018-19 dated 23.05.2019 was approved by O/O the Regional Controller of Mines, Indian Bureau of Mines (IBM), Government of India

6. PP reported that there is no forest land within the lease area. Letter regarding the same has been obtained from Forest Department vide letter no. Ma.Chi. / 3154 dated 04.08.2018. There is no National Park, Wildlife Sanctuary, and Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves etc. within 10 km radius of the Mine site. Letter showing the same has been obtained from Forest Department vide letter no. Ma.Chi/ 3154 dated 04.08.2018. No Protected Forest is found within 10 radius study area; Santhari Reserved Forest exist within the study area. No schedule I & II species (according to Wildlife Protection Act, 1972) is found in the study area. The Mining Lease Area is located in Madhya Pradesh District hence Project area does not fall under Aravali range.

7. PP reported that opencast fully mechanized method of mining will be carried out by deploying Heavy Earth Moving Machineries. The mine working will involve removal of overburden soil (OBS) & Upper Magnesian Shale (UMS) to expose upper grey limestone (UGL). Drilling will be carried out by drilling 6-8 m deep hole. Controlled blasting will be adopted with the use of ANFO and/or Column Charge (Slurry Explosives) and booster charge. Loading operations will be carried out by hydraulic excavators. Limestone will be crushed in the crusher installed at Plant Site of the company. After primary

crushing; mineral will be used for captive purpose in the company's Bela cement plant. Transportation of limestone from working face to crusher hopper will be carried out by dumpers. At end of the 5th year of mining plan, total 761452 cubic meter top soil will be generated. The scrapped top soil will be used for spreading and onward plantation activity. At the end of life of mine, total 7.138 million cum waste will be generated. Total generated Waste will be backfilled into the mined out area and later it will be stabilized by the plantation. There will be no waste dump at the end of life of mine. PP reported that shale will not use.

8. Total water requirement will be 90 KLD which will be sourced initially from mine sump of the adjacent mine and later from rain water accumulated in the mine sump of this mine as and when developed. Total existing manpower will be utilized for the proposed mining project. Total power requirement for the limestone mining project will be 150 KW (for mine lighting and illumination) which will be sourced from captive power plant and MPSEB grid.

9. PP reported that at the conceptual stage, out of the total lease area (i.e. 147.940 ha), mined out area will be 133.94 ha, out of which, 97.51 ha area will be covered under backfilling followed by plantation. About 36.43 ha area will be converted into water reservoir. 2.0 ha area will be covered under infrastructure. An area of 4.0 ha will remain undisturbed. Total 105.51 ha area (97.51 ha on backfilled area and 8.0 ha area by 7.5 meter barrier zone) will be covered under Green belt and Plantation. The plantation will be done @2500 saplings per ha of land.

10. The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during Post Monsoon Season (October to December, 2017). The baseline monitoring results of ambient air, soil, ambient noise level and ground water have been reported and the same were compared with respective prescribed standards viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for surface water & ground water) and ambient noise limits prescribed by CPCB. Concentrations of PM10 and PM2.5 for all the 8 AAQM stations were found between 60.8 to 83.4 µg/m³ and 25.9 to 50.7 µg/m³ respectively. The concentrations of SO₂ and NO₂ were found to be in range of 6.2 to 13.5 µg/m³ and 11.3 to 21.6 µg/m³, respectively. Noise levels vary from 49.3 to 60.4 Leq dB (A) during day time and from 41.2 to 48.3 Leq dB (A) during night time and are within the respective ambient noise limits. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is silty clay loam. The impact prediction carried through modeling indicated maximum incremental concentrations w.r.t. PM10 is 1.02 µg/m³, PM2.5 is 0.31 µg/m³, SO₂ is 2.13 µg/m³ & No₂ is 0.10 µg/m³.

11. Public hearing was conducted on 01.09.2018 at 11.30 AM at Government Primary School at Village-Sonara, Tehsil- Huzur, District Rewa. The proceeding was chaired by Mr. B.K. Pandey- Additional Collector, Representative of Collector and Mr. Sanjeev Kumar Mehra, Regional Officer, Madhya Pradesh State Pollution Control Board, Rewa. Main issues /concern

raised during public hearing has not been submitted by PP includes Company has been earmarked Rs. 50 lac under Corporate Environment Responsibility (CER) in compliance of MoEFCC OM dated 01.05.2018 for issues raised during public hearing like Education, Health, Infrastructure, Skill Development and others. Total cost of the Project is Rs. 20 Crores/-. Capital Cost for Environmental Protection Measures is Rs. 45 Lakh/- & Recurring cost is Rs. 25 Lakh per annum. PP informed that no litigation is pending against this project.

12. The Committee, after detailed deliberations, deferred the proposal and sought the following requisite information/clarification(s):

PP submitted that change in technology from opencast to combination of opencast and underground mining; however, there is no change in the mining plan. Therefore, the Committee asked the PP to submit a letter in the form of affidavit that there is no change in the mining plan.

- i. The details of the activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be resubmitted in accordance with the Ministry's O.M No 22- 65/2017-IA. II (M) dated 01.05.2018. The Committee suggested that the CER may be taken w.r.t. three years.*
- ii. The detailed land breaks up involved in the mine lease area.*
- iii. PP is required to submit the revised project cost including with the land cost.*
- iv. Total water management and water budget study need to submit.*
- v. Certificate clearly stating that there is no forest land involved in the mine lease area duly authenticated by the APPCF.*
- vi. PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors*
- vii. The PP should submit the water budget incorporating the quantity of surface and ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred in this needs to be submitted. to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of ground water by developing alternative source of water through rain water*

harvesting measures. The capital and recurring expenditure to be incurred in this needs to be submitted.

- viii. Certificate clearly stating that there is no forest land involved in the mine lease area duly authenticated by the APPCF.*
- ix. Updated list of Schedule-I species and the map of clearly demarcating the mine lease area and the distance of National Park, Wild Life Sanctuary, Biosphere Reserve, Tiger Reserve and Wildlife Corridor etc from the mine lease area duly authenticated by the CWLW.*
- x. PP reported that the Limestone will be crushed in the crusher installed at Plant Site of the company with the capacity of 4 MTPA situated at 1.4 km from the mine lease area. After primary crushing, mineral will be used for captive purpose in the company's Bela cement plant. Transportation of limestone from working face to crusher hopper will be carried out by dumpers. Accordingly, PP need to submit an NOC from the adjacent mine for using their facility without compromising of existing EC conditions.*
- xi. Cumulative impact study of nearby mine and cement plan*
- xii. PP need to submit an undertaking in form affidavit stating that the mined material will not be stored in another mine lease area, if so all applicable statutory clearances have been obtained.*
- xiii. Transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought supported with the line source modeling and isopleths.*
- xiv. Letter from the Department of Mines and Geology, Govt of Madhya Pradesh stating that the above mine lease area is valid up to 29.03.2061 as per section 8 (A) (3) of Mines and Minerals (Development & Regulation) Amendment Act, 2015.*
- xv. PP has not submitted the adequate details of total excavation w.r.t. mineral, OB, Inter-burden, Waste etc. The details as per conceptual plan in uniform unit of expression shall be submitted.*

12. Based on the ADS raised above, subsequently Ministry vide letter dated 09.10.2019 raised 13 points query to the PP. PP vide its letter dated 13.03.2020 has submitted the following information/clarification:

- I. The details of the activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be resubmitted in accordance with the Ministry's O.M No 22- 65/2017-IA. II (M) dated 01.05.2018. The Committee suggested that the CER may be taken w.r.t. three years.*

Submission of PP:

- As per MoEF&CC OM dated 01.05.2018, Greenfield project having

capital investment of ≤ 100 Crores have to spend 2.0% under CER.

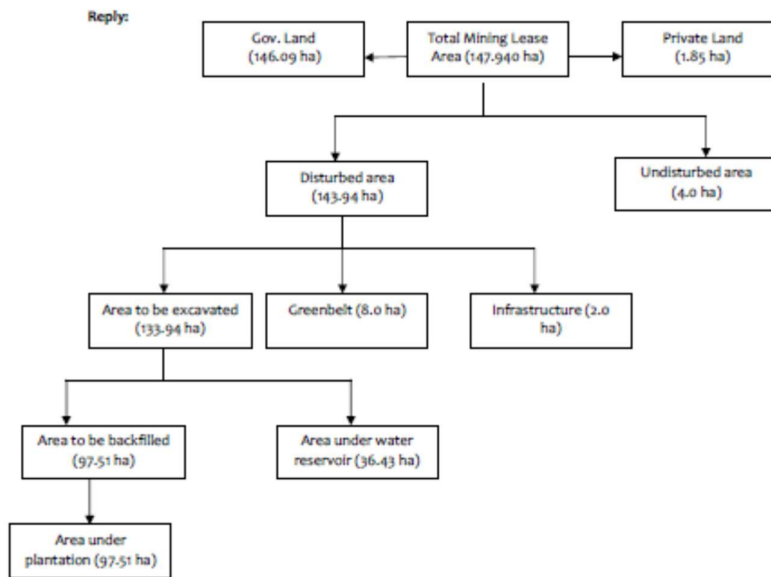
- Earlier the cost of the project was 20 Crore. Against which company had allocate 50 lakhs under CER (2% of total project cost). Now, after inclusion of the land cost i.e, 71.02 Crores, the total project cost is Rs. 91.02 Crores.
- Company has earmarked Rs. 1.82 Crores under CER (2.0% of total project cost).
- Detailed Revised CER Budget as per the provision of OM No. F. No. 22-65/2017-IA-III dated 01.05.2018 is presented below:

Sl. No.	Activities	1st Year	2nd Year	3rd Year	Total	Proposed Budget
		Rs. Lakhs	Rs. Lakhs	Rs. Lakhs	Rs. Lakhs	Rs. Lakhs
EDUCATION						
1.	Construction of washrooms in schools of village narora.	1.00	-	-	1.00	29.00
	Construction of a primary school in hinauti village	15.00	-	-	15.00	
	Construction of bholgarh school	-	1.50	-	1.50	
	To provide water coolers in school of narora village.	-	0.50	-	0.50	
	Construction of sports ground in schools of narora village and providing sports kit to children.	5.00	-	1.00	6.00	
	To provide computer lab & 2 Nos. Smart boards in School of Village Narora	-	5.00	-	5.00	
	Sub Total	21.00	7.00	1.00	29.00	
	HEALTH					
2.	To Provide medical equipments to PHC.	10.00	-	-	10.00	25.00
	Ambulance will be provided.	-	15.00	-	15.00	
	Sub total	10.00	15.00	-	25.00	
INFRASTRUCTURE DEVELOPMENT						
	Construction of check dam, stop dam at river Kariyari	15.00	-	15.0	30.00	
	Construction of Roads in	-	15.00	-	15.00	

3.	narora village					73.00
	Construction of drains in hinauti, sonra and narora village.	-	8.50	16.0	24.50	
	Construction of common playground.	-	3.50	-	3.50	
	Sub Total	15.0	27.0	31.00	73.0	
SKILL DEVELOPMENT						33.50
4.	Skill development programme like Tailoring classes, Computer training (5 Sewing machines and 5 Computers will be provided by Company along with Teachers preferably from nearby villages.	10.00	-	-	10.00	
	Training institutes will be opened for Training with the help of experts working in the field of agriculture & livestock through workshop in the villages.	23.50	-	-	23.50	
Sub Total		33.50	-	-	33.50	
DRINKING WATER FACILITIES						1.50
5.	Providing RO for clean and safe drinking water supply in Gram Panchayats of Hinauti, Narora and Sonra	-	1.00	0.50	1.50	
	Sub Total	-	1.00	0.50	1.50	
OTHERS						20.00
6.	Establishment of Gaushala	-	5.00	-	5.00	
	Arrangements of fire brigade	-	-	15.00	15.00	
	Sub Total	-	5.00	15.00	20.00	
Grand Total						182.00

II. *The detailed land breaks up involved in the mine lease area.*

Submission of PP:



III. *PP is required to submit the revised project cost including with the land cost.*

Submission of PP:

- Earlier the cost of the project was 20 Crore.
- Now, after inclusion of the land cost i.e, 71.02 Crores, the total project cost is Rs. 91.02 Crores.

IV. *Certificate clearly stating that there is no forest land involved in the mine lease area duly authenticated by the APPCF.*

Submission of PP: The letter stating that there is no forest land involved in the mine lease area duly authenticated by the APPCF vide letter no. F-1/EC/R-2890/2019/10-11/975 Dated: 07.03.2020. Copy of same is enclosed as **Annexure I to the letter by PP.**

V. *PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.*

Submission of PP: An affidavit in compliance of Ministry's O.M No 3-50/2017-IA.II (M) dated 30.05.2018 as enclosed as **Annexure II to the letter by PP.**

VI. *The PP should submit the water budget incorporating the quantity of surface and ground water to be used for this project. The complete water*

balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred in this needs to be submitted. to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred in this needs to be submitted.

Submission of PP:

WATER BUDGET & WATER BALANCE CYCLE

- Fresh water requirement of 90 KLD water will be required for Proposed Narora Limestone Mine.
- The fresh water requirement will be initially sourced from mine sump water of existing limestone mine while in later stages of mining, surface water/reservoir developed in mined out area of proposed limestone mine itself.
- Only 1 KLD of ground water will be abstracted for drinking purpose.
- Water Balance Chart is shown in given Table no. 1 & Figure no. 1 below:

**Table No. 1
WATER REQUIREMENT**

S. No.	Particulars	Water Requirement (KLD)
1.	Dust Suppression	30
2.	Green Belt Development & Plantation	40
3.	Drinking & Sanitation	10
4.	Mine Operations & workshop	10
	Total	90

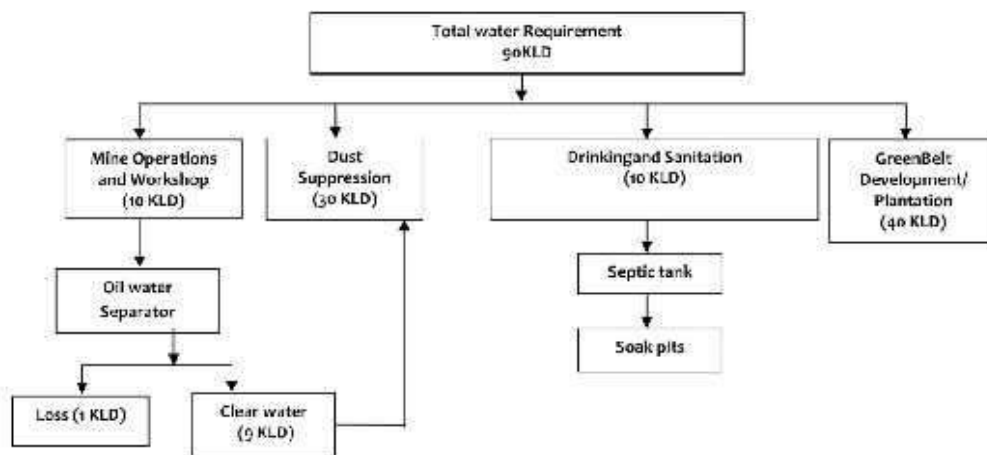


Figure 1: Water Balance Chart

RAINWATER HARVESTING PLAN

• RAINWATER IN EXCAVATED MINE PITS

1. Total rainwater accumulation in excavated mine pits at the end of present plan period - **2,15,516 Cum**
2. Total rainwater accumulation at Conceptual Stage (Water Reservoir-36.43 Ha), - **3,20,329 Cum/annum**

Year	Excavated Area (Ha)	Excavated Area (Sq.m.)	Depth (m)	Average Annual Rainfall (m)	Annual Rain water Stored (Cum)	Annual Losses (50%) {i.e. Evaporation -30% & Other losses-20%}	Daily Available Rainwater (Cum)
Five Year Mine Plan period							
I Year	5.0	50,000	21	0.977	43,965	21,983	60
II Year	9.58	95,800	23	0.977	84,237	42,118	115
III Year	15.38	1,53,800	23	0.977	1,35,236	67,618	185
IV Year	19.95	1,99,500	25	0.977	1,75,420	87,710	240
V Year	24.51	2,45,100	25	0.977	2,15,516	1,07,758	295

After 2nd year of mining operations, rainwater accumulated in mine pits shall be sufficient to meet the overall water requirement even after reduction of annual losses in the form of evaporation and other losses i.e. recharge to groundwater or handling losses.

At the conceptual stage, a total of 36.43 ha area shall be converted into water reservoir after final backfilling and greenbelt/plantation. Total rainfall availability on water void created/left at conceptual plan shall be 0.32 mcm/annum excluding additional surface runoff from surrounding backfilled area.

The total capital cost for RWHP is 10 Lakh with recurring cost of 2 lakhs

YEAR WISE TARGET FOR REDUCTION IN CONSUMPTION OF GROUNDWATER

Total water requirement of Proposed Narora Limestone Mine will be 90 KLD and source of water supply will be initially mine sump water of existing limestone mine while in later stages of mining, surface water/reservoir developed in mined out area of proposed limestone mine itself and Only 1 KLD of ground water will be abstracted for drinking purpose.

Further, a substantial quantity of rainwater shall be accumulated in excavated mine pits available in excess amount. From second year onwards, the accumulated rainwater in mine sump will be sufficient to fulfill entire mine water requirement even after reduction of annual losses in the form of evaporation, groundwater recharge and handling losses. No additional water need to be sourced from outside mine lease.

VII. *Updated list of Schedule-I species and the map of clearly demarcating the mine lease area and the distance of National Park, Wild Life Sanctuary, Biosphere Reserve, Tiger Reserve and Wildlife Corridor etc from the mine lease area duly authenticated by the CWLW.*

Submission of PP: The letter regarding authenticated flora and fauna list along with location map duly authenticated by the APPCF vide letter no. F-1/EC/R-2890/2019/10-11/975 Dated: 07.03.2020.
Copy of same is enclosed as Annexure I to the letter by PP.

VIII. *PP reported that the Limestone will be crushed in the crusher installed at Plant Site of the company with the capacity of 4 MTPA situated at 1.4 km from the mine lease area. After primary crushing, mineral will be used for captive purpose in the company's Bela cement plant. Transportation of limestone from working face to crusher hopper will be carried out by dumpers. Accordingly, PP need to submit an NOC from the adjacent mine for using their facility without compromising of existing EC conditions.*

Submission of PP: The adjacent mine is also belonging to M/s. Ultra Tech Cement Limited (Unit: Bela Cement Works). Moreover, no existing EC conditions of the existing mine is being compromised and same will continue in future also. An affidavit is enclosed as **Annexure III to the letter by PP.**

IX. *Cumulative impact study of nearby mine and cement plan.*

Submission of PP: There are 3 existing leases, 3 other proposed leases and a cement plant in the nearby area of this proposed mine. Cumulative Impact study of nearby mine and Cement Plant has been done and the same is enclosed as **Annexure IV to the letter by PP.**

- X. *PP need to submit an undertaking in form affidavit stating that the mined material will not be stored in another mine lease area, if so all applicable statutory clearances have been obtained.*

Submission of PP: No mined material will be stored outside the lease area except the captive cement plant, Copy of Affidavit stating the same is enclosed as **Annexure III to the letter by PP.**

- XI. *Transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought supported with the line source modeling and isopleths.*

Submission of PP:

- Transportation of blasted limestone from working face to crusher hopper will be carried out by dumpers.
- Crusher is located in cement plant which is present at a distance of 3 km (road distance) from the Narora Limestone Mine. The aerial distance from mine boundary to cement plant boundary is 0.8 km.
- For transportation purpose only internal haul roads of the existing mines of the same lessee will be used. Transportation route map is given in **figure no. 2** below:
- The internal roads which will be used transportation are private and No public road network will be used for the transportation.
- Within 300-500 m on either side of the road there are only mining lease areas and no agricultural land is present hence; no impact from the centre line of the road on either side is envisaged on agricultural land

Measures for Transportation

Necessary mitigation measures will be adopted. The same are given as under:

- Vehicle with valid PUC will be used for transportation.
- Overloading of the material will be avoided.
- Proper maintenance, oiling and greasing of vehicles will be done.
- Vehicular emission will be being kept under control.
- Regular water spraying on the haul roads to suppress the fugitive dust emissions.
- Personal protective equipment provided to all workers

- XII. *Letter from the Department of Mines and Geology, Govt of Madhya Pradesh stating that the above mine lease area is valid up to 29.03.2061 as per section 8 (A) (3) of Mines and Minerals (Development & Regulation) Amendment Act, 2015.*

Submission of PP: Mining lease area is valid upto 29.03.2061 and letter regarding the same is enclosed as **Annexure V to the letter by PP.**

- XIII. *PP has not submitted the adequate details of total excavation w.r.t. mineral, OB, Inter-burden, Waste etc. The details as per conceptual plan in uniform unit of expression shall be submitted.*

Submission of PP: Details of total excavation w.r.t. mineral, OB, Inter burden, Waste are given below:

S.No.	PARTICULARS		Quantity (CuM)	Quantity (Million Tonne)
1	Limestone		4,00,020	1.0
2	Overburden	MSH	1,78,112	1.2
		NDS	3,09,520	
3	Topsoil		1,88,497	0.3
TOTAL			10,76,149	2.5

13. After detailed deliberations, the committee observed that the cumulative impact assessment was not properly carried out, by considering the total excavation from the surrounding mines and transportation associated with it, as desired by the EAC. Therefore, the PP shall submit the revised impact assesment, *inter alia*, including cumulative impact assessment conisering the total excavation from the surrounding mines and transportation associated with it, Certificate from the DMG regarding no mining has been carried out in the proposed ML area as desired in the earlier meeting. **Therefore, the proposal is deferred.**

2.12 Boricha Limestone of M/s Saurashtra Chemicals Division of Nirma Ltd with production of 7, 00,000 TPA (ROM) in the mine lease area of 101.17 ha located at Survey No.22/P Near village – Boricha, Taluka– Porbandar and District Porbandar, Gujarat (File No: J-11015/67/2019-IA-II(M); Proposal No: IA/GJ/MIN/115531/2019) - Consideration of ToR.

1. The proposal of M/s Saurashtra Chemical Division of Nirma limited is for Boricha limestone mine with production of 7,00,000 TPA (RoM) of limestone in the mine lease area (MLA) of 101.17 ha. The mine lease area is located in revenue survey no.22/2P of village – Boricha, Talukaand District Porbandar, Gujarat. The MLA is covered in the Survey of India Toposheet No. 41G/09 & 10 restricted. The latitude and longitude of the MLA are 21°44'32.5188"N to 21°45'29.6956"N and 69°40'30.4297"E to 69°41'2.271"E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time the project falls under Category 'A', as the mine lease area is greater than 100 ha. Furthermore, the proposal attracts the general conditions of the EIA Notification, 2006, i.e. Notified Eco-sensitive areas (i.e. Barda Wildlife Sanctuary).

3. PP submitted that total lease area is 101.17 ha which is Government waste land. The Boricha limestone mine is an existing captive mine. PP further submitted that mining lease area is falling outside Barda wildlife sanctuary and its Eco Sensitive Zone(ESZ) as notified by MoEF& CC, New Delhi vide notification dated 28.04.2017. However, around 30.36 ha of the eastern part of the lease area falls in 1km from the boundary of the Barda Wildlife Sanctuary and this 1 km zone will be considered as non-mining zone.

Comment of PD: In response to EDS raised w.r.t. Status of National Board of Wildlife (NBWL) Clearance, PP has submitted that Barda Wildlife Sanctuary is located nearby the Mining Lease area. Eco sensitive Zone of said Barda Wildlife Sanctuary is notified by MoEF & CC, New Delhi vide notification no. SO.1365(E), dated: 28.04.2017. The mining lease area is located in survey no. 22/2 of village, Boricha, Taluka & Dist: Porbandar which is Govt. waste land and as per said notification, entire survey no. 22/2 (Govt. waste land) is outside the notified ESZ of BWS. So provision of requirement of NBWL clearance is not applicable to its mining lease.

4. PP submitted that originally the company was incorporated in the name of Salt and Allied Industries Limited on 22.08.1951 under the Companies Act, 1956. The name of the company was changed to Birla Salt and Chemicals Limited vide letter No 683 dated 15.09.1989. Subsequently, the name of company was again changed to Saurashtra Chemicals limited on 25.03.1999. PP further submitted that M/s Saurashtra Chemicals limited, merged into M/s Nirma Limited with effect from 01.04.2011 vide order dated 22.01.2013. Furthermore, the Industries and Mines Department, State Government vide order no. MCR/102013/ML-29/CHH dated 02.11.2013 replaced the name of M/s. Saurashtra Chemicals Limited Company by M/s. Saurashtra Chemicals Division of Nirma Limited in respect of all the presently existing mining leases of the Company existed in Porbandar.

Comment of PD: In response to EDS raised, PP has submitted the desired documents as stated above.

5. PP submitted that the initially mining lease was granted and executed on 10.07.1966 by the State Government for the period of 20 years i.e. up to 09.07.1986. PP has applied for 1st renewal of the lease on 08.07.1985 for further period of 20 years i.e. up to 09.07.2006. However, the State Government vide order no. MCR-1585-(S-137)-627-CHH, dated: 06.03.1987 rejected the renewal of mining lease stating that the mining lease already granted earlier have sufficient estimated reserves of limestone to feed the plant in other mining leases. PP had challenged the rejection order by filling RCS no. 309/93 in Hon'ble Court of learned Civil Judge (S.D.) Porbandar, who was pleased to allow the suit vide judgment & decree dated 09.09.1996 for

renewal of the mining lease for 20 years. The State Government preferred the appeal by filing Regular Civil Appeal No. 1/97 in the Court of Joint District Judge (S.D.) Junagadh at Porbandar. In the Judgment dated 03.05.2004 the learned Joint Civil Judge confirmed the Judgment & Decree passed by Learned Civil Judge (S.D.) in RCS No. 309/93 on 09.09.1996. The Hon'ble Court also noted that lessee is under obligation to apply for second renewal about 12 months before expiry of lease period, considering the expiry of the lease period of first renewal on 09.07.2006. Accordingly, the PP has applied for second renewal on 14.06.2005 i.e. before one year of the expiry of the lease period. The renewal request of company for issuances of renewal orders were under consideration with the State Govt. for longer period. Meanwhile, Central Government has amended "Mines and Minerals (Development and Regulation) Act-1957 w.e.f 12.01.2015, incorporating special provisions relating to the extension of the tenure of the existing captive leases under section 8A(5). Accordingly, the State Government has extended up to 31.03.2030 vide order No. MCR/1563/22809/CHH dated.02.02.2018 and the District Collector, Porbandar has executed the lease deed on 28.01.2019 for the period up to 31.03.2030 in name of M/s Saurashtra Chemicals, Division of M/s Nirma Limited which was registered with Registrar Porbandar on 22.02.2019.

Comment of PD: PP has submitted the desired above mentioned documents in response to EDS.

6. In response to EDS raised, PP has submitted that No EC has been accorded to PP for the said mine till date. Also, Status of Mining Lease is NON WORKING in want of Environmental Clearance.

7. PP further submitted that the mining will be carried out by open cast semi mechanized method with drilling and blasting by forming benches up to 3.0 m height, depending on the thickness of chemical grade limestone in the area. The sides of the benches will have slope at a safe angle not more than 85 degree from horizontal. Proposed production is 7,00,000 TPA (ROM) and as per proposed production, life of mine is about 5 years (life of mine will be increased on conversion of resources into reserves by exploration as suggested in mining plan). The ore will be transported to the company's own soda ash plant by using Tipper/Trucks.

8. PP submitted that the lease area is an irregular polygon in shape with general slope towards SW. The general elevation within the lease area varies from around 80mRL to 48mRL showing a relief of about 32 meters. The lease area is devoid of any overburden or waste material thus no dumps of waste/reject to be maintained. Present topography is having gentle slope terrain with old excavated pits of 19.5520 ha.

Comment of PD: In response to EDS raised w.r.t. Details of production of mine since its inception, duly authenticated by Department of Mines and Geology, State Government, PP submitted that the details of limestone production from the lease area are NIL as company has not carried out any mining operation for production of limestone sine 09.07.1966 to till date. This can also be

evident from the Court judgements and mining plan / PFR. PP has submitted the certificate issued from the District Geologist of Geology and Mining in this regard.

9. PP submitted that the total Water requirement for domestic consumption (23 KLD), plantation (4 KLD) and dust suppression (6 KLD) amounts to 33 KLD which will be supplied from nearby villages for drinking and toilet purpose as well as for dust suppression measures.

10. PP has submitted that the green belt of around 4.2921 hectare is proposed in the SBZ area and along the border of the Non-Mining Zone. The plantation will be done with the local species for maximum survival. The rainfall is scanty, therefore it is essential that the sapling of selected plants grown should be such those required minimum water. No excavation or stacking of mineral is proposed in the 45m safety barrier zone of the tar road passing through the South-West corner of the lease area. 500 no. of saplings will be planted each in 2019-20 and 2020-21.

11. During the opencast working, and allied activities, all the precautionary measures shall be taken into account as per MMR 1961 and MCDR 1988 for safety and security. Following Safety & Security measures will be enforced; the barbed-wire fencing is proposed surrounding the pits for safety purpose. Mine entrance will have a permanent check post and record shall be maintained of all persons / vehicles entering the mine area. Round the clock security arrangement shall be provided to prevent inadvertent entry of persons. Mitigation measures will be taken in respect to non - compliance. Review of the safety practices being followed and additional safety measures if necessary. Identification of the unsafe conditions/ practices preventing in the SOPs forelimination of hazard, if any. Arrangement of training to develop safety awareness among all staffs of the works.

12. PP has submitted that there is no village and major hutments within the lease area. Human settlement is about 1.5 kms away from mining area. Thus, mining will not have any adverse impact on the village human settlement. However, some kaccha hutments are exists in the North-Eastern side of the lease area.

13. PP submitted that no court cases/litigation pending against the project.

Comment of PD: In response to EDS raised w.r.t. Details of demand if any raised by Department of Mining and Geology and details of payment if any paid to DMG, PP has submitted that No Demand is outstanding and hence not raised any demand by the Govt. Further, PP has submitted that Company is paying Dead rent & Surface on annual basis as per rules regularly and no Demand of Dead rent & Surface is outstanding for this mining lease.

14. PP submitted that the estimated project cost for the proposed project is Rs. 3.91 Crores. The man power requirement for mining is estimated to be 605 Nos. Most of the employees will be recruited from neighboring village depending upon the availability of skilled and unskilled people.

15. The proposal was considered in 10th EAC Meeting held during October 21-22, 2019. Based on the presentation made by PP and the discussion held, the Committee had deferred the proposal and sought following addition information for further consideration.

- i. *PP needs to submit documentary evidence for merging of M/s Saurashtra Chemicals limited into M/s Nirma Limited (i. e. with effect from 01.04.2011 vide order dated 22.01.2013). The instant proposal submitted in the name of M/s Saurashtra Chemicals Division of Nirma Ltd. PP needs to submit the certificate of registration for the same.*
- ii. *The Committee observed that 30.36 ha of lease falls under 1km from the boundary of the Barda Wildlife Sanctuary which will be considered as nonmining zone. The Committee asked the PP to surrender this area. PP replied to the Committee that the Company has approached to the State Government for surrender; however, the State Government replied that once the lease is granted it cannot be taken back. Therefore, the Committee asked the PP to submit real-time coordinates for mining and non-mining zone and to submit a certificate from Office of the PCCF/CWLW for distance between the mine lease area and Barda Wildlife Sanctuary. An undertaking by PP is also required that the estimated area of 30.36 h under 1 km from the sanctuary will be non-mining zone.*
- iii. *PP requires to submit original affidavit in compliance of the Ministry's OMNo.3-50/2017-IA-III dated 30th May2018.*
- iv. *The Committee observed that three roads are passing through the mining lease area and PP mentioned that road conversion will be there. Therefore, the Committee asked the PP to submit conceptual plan for alternative road formation and their timeline.*
- v. *PP needs to submit a copy of Mining Plan and conceptual plan for the proposed project (revised as per commitments made before the committee.*

16. The Ministry vide its letter dated 12.12.2019 informed the PP to submit the requisite information. PP vide its letter No. SC/NL/ENV-173/546/2020 dated 13.05.2020 has submitted the information as follows:

Sl. No.	ADS	Reply
(i)	PP needs to submit documentary evidence for merging of M/s Saurashtra Chemicals limited into M/s Nirma Limited (i. e. with effect from 01.04.2011 vide order dated 22.01.2013). The instant proposal submitted in the name of	PP ha submitted that: <ul style="list-style-type: none"> • BIFR Order dated 22.01.2013 for said merger/amalgamation is enclosed as Annexure A to the letter by PP. • PP has stated that on amalgamation of Saurashtra Chemicals Limited into M/s Nirma Limited,

	<p>M/s Saurashtra Chemicals Division of Nirma Ltd. PP needs to submit the certificate of registration for the same.</p>	<p>Industries & Mines Department, Govt. of Gujarat, vide order no. MCR / 102013 / ML — 29 / CHH, dated: 02.11.2013 has accorded the permission for name change of company from Saurashtra Chemicals Limited to M/s Saurashtra Chemicals, Division of Nirma Limited in all mineral concessions. Copy of said order is attached as Annexure B to the letter.</p> <ul style="list-style-type: none"> Accordingly, M/s Saurashtra Chemicals is division of M/s Nirma Limited and Certificate of Registration (ROC) of M/s Nirma Limited is attached as Annexure C to the letter.
(ii)	<p>The Committee observed that 30.36 ha of lease falls under 1km from the boundary of the Barda Wildlife Sanctuary which will be considered as nonmining zone. The Committee asked the PP to surrender this area. PP replied to the Committee that the Company has approached to the State Government for surrender; however, the State Government replied that once the lease is granted it cannot be taken back. Therefore, the Committee asked the PP to submit real-time coordinates for mining and non-mining zone and to submit a certificate from Office of the PCCF/CWLW for distance between the mine lease area and Barda Wildlife Sanctuary. An undertaking by PP is also required that the estimated area of 30.36 h under 1 km from the sanctuary will be non-mining zone</p>	<p>PP has submitted the following details:</p> <ul style="list-style-type: none"> Boricha mining lease area (101.17 Ha) is falling outside of Barda Wildlife Sanctuary as well as its notified Eco sensitive Zone. However, some part in eastern side is falling in 1 km periphery area of Barda Wildlife Sanctuary. The District Conservator of Forest (DCF), Wildlife Department, Govt. of Gujarat, Porbandar has prepared the map through BISAG, Gandhinagar showing Boricha mining lease area (101.17 ha) with respect to Barda Wildlife Sanctuary and it's notified Eco Sensitive zone as well as required 1km periphery area from the nearest boundary of Barda Wildlife Sanctuary with real-time coordinates of 1 km line for mining & non-mining zone and provided said authenticated map to us for EC purpose vide his letter dated: 05.11.2019. Copy of said letter with authenticated map along with real-time coordinates of 1 km line is attached as Annexure D to the letter. The DCF, Porbandar has provided authenticated map with real-time coordinates of 1km line, however as

		<p>required, we have requested to PCCF / CWLW, Gandhinagar to authenticate said map with a request to issue distance certificate with map showing mining lease area with respect to Barda Wildlife Sanctuary and 1km periphery area from the nearest boundary of Barda Wildlife Sanctuary with real-time coordinates of 1 km line vide our letter dated: 04.01.2020 which is under consideration. On getting the same, PP will submit to EAC. Copy of said letter is attached as Annexure E to the letter.</p> <ul style="list-style-type: none"> • PP has submitted an undertaking for demarcated area of 30.36 ha under 1 km from the sanctuary will be considered as non-mining zone, enclosed in ORIGINAL as Annexure F to the letter.
(iii)	<p>PP requires to submit original affidavit in compliance of the Ministry's OMNo.3-50/2017-IA-III dated 30th May2018.</p>	<p>PP has submitted Original affidavit in compliance of Ministry's OM No.3-50/2017-IA-III dated 30th May 2018 enclosed as Annexure-G to the letter.</p>
(iv)	<p>The Committee observed that three roads are passing through the mining lease area and PP mentioned that road conversion will be there. Therefore, the Committee asked the PP to submit conceptual plan for alternative road formation and their timeline.</p>	<p>PP has stated that:</p> <ul style="list-style-type: none"> • EAC has observed three roads passing through the lease area. • Out of these three roads, one road of length of around 335 m is Tar road using by villagers as village connecting road and other two roads of 1200m length & 550 m are kaccha road as temporary pathway being occasionally used by pedestrian. • All these three roads are not shown in revenue map / revenue records of the Boricha • Village as village road. Copy of village map is attached as Annexure H to the letter. • As far as Tar Road passing in the

		<p>lease area is concerned, requisite safety distance barrier will be left during mining as per MMR 1961 and shall be used for development of green belt in said safety barrier around Tar Road.</p> <ul style="list-style-type: none"> • So far two Kaccha Roads passing in the lease area are concerned, these are temporary path way being used for pedestrian and shall be diverted at the extreme end of boundary of the lease area / 1 km periphery line. • Proposal has been prepared and shown in 2nd year development plan as well as conceptual plan of the Mining Plan which has been approved by IBM, Govt. of India vide letter dated; 23.12.2019. Copy of concern pages and 2nd year development plan as well as conceptual plan of IBM approved Mine plan are attached as Annexure I1, I2 & I3 respectively to the letter by PP.
(v)	<p>PP needs to submit a copy of Mining Plan and conceptual plan for the proposed project (revised as per commitments made before the committee.</p>	<p>PP has submitted that Proposal as per commitment made before committee has been upheld and included while preparation of conceptual plan and mining plan document which has been approved by IBM, Govt. of India vide letter dated; 23.12.2019. Copy of said IBM approved mining plan including conceptual plan is attached as Annexure K to the letter. (PP has requested to refer page no. 43 to 46 of Annexure K & conceptual plan — Annexure I3.)</p>

17. After detailed deliberations, the committee asked the PP that how much barrier will be left against the 1 Km boundary of the wildlife sanctuary to ensure that even in case of failure of highwall for any reason, the quarry operations shall not be extended towards the prohibited zone of 1 Km boundary of WLS. The committee taking into the consideration of maximum depth of the quarry and factor of safety, it was suggested to leave the 50 m barrier against the 1 Km boundary of WLS and the same was agreed by the PP. The committee **recommended for grant of ToR** with following specific ToRs in addition to the Standard ToR applicable to Non-Coal Mining Sector.

- i. The PP shall leave the buffer of 50 m offset to the 1 Km boundary of the WLS and declare as non-mining area further, shall develop thick

greenbelt with native species.

- ii. No mining activity shall be carried in the buffer zone and also in the non-mining area declared inside the 1 Km boundary of the WLS.
- iii. DGPS coordinates certified by the Chief Wildlife Warden in respect of 1 Km boundary of the Wildlife Sanctuary and 50 m offset zone line of buffer area shall be provided along with the EIA/EMP report.
- iv. The PP shall carry out the detailed study on the impact of mining operations including the transportation of mineral and other material on the wildlife sanctuary.
- v. The PP shall prepare the conservation plan in consultation with the state forest department and approved by the CWLW. The same shall be submitted along with the EIA/EMP.

2.13 Expansion of Underground Lead - Zinc ore production from 0.12 MTPA to 1.5 MTPA (ROM 2.0 MTPA) at ML 39/83 comprising Bamnia Kalan and adjoining Sindesar Kalan deposits of M/s Hindustan Zinc Ltd. located at Village: Bamnia Kalan & Sindesar Kalan, Tehsil: Railmagra, Dist: Rajsamand (Rajasthan) [IA/RJ/MIN/153942/2020; J-11015/455/2007-IA.II(M)]- Consideration of ToR.

1. The Proposal of M/s Hindustan Zinc Ltd. is for grant of Term of Reference for Expansion of Underground Lead - Zinc ore production from 0.12MTPA to 1.5 MTPA (ROM 2.0 MTPA) at ML 39/83 comprising Bamnia Kalan and adjoining Sindesar Kalan deposits located at Village: Bamnia Kalan & Sindesar Kalan, Tehsil: Railmagra, Dist: Rajsamand (Rajasthan).The Mining Lease area of 383.78 ha falls in Survey of India Toposheet No. 45K/4, K/8 & L/1, L/5. It lies between Latitudes 25°01'21.2" N - 25°03'10.3" N and Longitudes 74°08'38.7" E - 74°10'56.3" E. The area falls under Seismic Zone-II, as per IS 1893 (Part 1): 2002.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha.

3. PP has submitted that the Government of Rajasthan granted mining lease ML-39/83 of Bamnia Kalan Lead -Zinc deposit to Hindustan Zinc Limited (HZL) on 22.02.1985 and executed on 30.10.1985 for a period of twenty years with effect from 30.10.1985. HZL applied for renewal of lease before expiry of lease validity. The lease validity was extended by Government of Rajasthan vide letter no. M.E.-II/Raj/CCMajor/ML-68/2004/1955 dated 24.02.2015 up to 31.03.2020. Further, as per rule 8A(6) of MMDR(Amendment) Act-2015 lease validity was extended by Government of Rajasthan vide letter no. M.E.-II/Raj/CC-First/ML-39/1983/196 dated 31.01.2019 up to 29-03-2035 and extended up to 29-10-2035 through Rider agreement dated 10-10-2019.

4. PP has submitted that Environment Clearance for Bamnia Kalan Lead – Zinc underground mine with Ore Production of 0.12 million TPA of Hindustan Zinc Ltd. located at village – Bamnia Kalan & Sindesar Kalan, Tehsil: Railmagra, Dist: Rajsamand, Rajasthan (MLA: 383.78ha) was obtained from MOEF&CC vide letter no. J-11015/455/2007-IA.II (M) dated 11-05-2011.

PP has now applied vide **Proposal No. IA/RJ/MIN/153942/2020 dated 21.05.2020** for Expansion of Underground Lead - Zinc ore production from 0.12MTPA to 1.5 MTPA (ROM 2.0 MTPA) at ML 39/83 comprising Bamnia Kalan and adjoining Sindesar Kalan deposits

5. PP has submitted that the Project site and surrounding area of 10 km radius from the mining lease boundary does not have any protected areas such as National Parks or Wildlife Sanctuaries, reserve or protected forest.

6. PP has submitted that mining plan including environmental management plan was approved by Indian Bureau of mine vide letter no. 682(23)(505)/2007-Udai dated 27-04-2007. Modified Mining Plan for 1.5 MPTA Lead-Zinc Ore Production from Bamnia Kalan Mine for the period from 2019-20 to 2022-23 has been submitted for further progressing and approval.

7. PP has submitted that the mining method adopted for Bamnia Kalan Mine will be Bench Stopping & Transverse Stopping method. The deposit is shallow seated and hence initial feasibility study has been carried out for mode of entry and mining method. Due to shallow depth of deposit and lowcost of production with decline mining by trackless operations, it is decided to develop a decline from Sindesar Khurd Mine to Bamnia Kalan Deposit for ore production with secondary access via service portal and maximum of four ventilation shafts. The decline will be developed from surface of size 5.5m(W) X 5.0m(H). The ore body will be explored from the exploratory drives developed from decline at 400mRL. The definition drilling will be done from underground from each mining level at a grid interval of 25m (Horizontal) X 15m (Vertical). The ore body shall be divided into mining blocks based on the numerical modelling study Stopping shall be done by bench stopping & transverse method. In bench method, drive is developed in the ore body and slot is opened at the end of the strike length of the stope & rings are retreated between sublevels, moving towards the entry in suitable stope lengths with filling. The muck shall be then withdrawn at extraction level through LHDs and then directly loaded in to mine trucks for hauling through ramps from underground to surface stock yard. From stock yard, ore shall be sent to Sindesar Khurd Lead Zinc Mine and other mines via road transport and fed to primary crusher after sizing with hydraulic breakers. Total Waste rock generation will be 7.1 million tons and same will be utilized in backfilling.

8. PP has submitted that time bound Green Belt action plan is prepared for plantation at 3ha in the acquired land at Bamnia Kalan lease.

9. PP has submitted that additional 2500 m³ /d of water (totals 2560 m³

/d) is required for proposed expansion project of 1.5 Mtpa mining capacity. Water requirement will be met out from Udaipur Sewage Treatment Plant & Matrikundia dam. Zero discharge will be maintained. Mine dewatering due to intersection will also be consumed in the process.

Mine water generated in the mining activity will be suitably treated and reused in wet drilling operations, dust suppression in underground operation and in sprinkling on surface roads for dust suppression. Zero discharge will be maintained from mining premises. The Banas River (non-perineal) passes through the mine lease area. However, there are no faults / major fractures connecting river with mineralized zone and no percolation of river water is expected in the mine. Storm water generated is allowed to flow naturally ensuring no contamination to it.

10. PP has submitted that the proposed project shall further strengthen its commitments on CSR investment for overall upliftment of socio economic index of the communities around the project site by way of financial and administrative support. The CSR approach of the company shall be towards sustainable livelihood management of the community around. There shall be focus on education, health, sanitation, drinking water, agriculture, water shed management, culture identity preservation, welfare of socially weaker sections and marginalized people. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Mines Act.

11. PP has submitted that No R&R is envisaged due to this project.

12. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

13. PP has submitted that the total Project capital Cost is INR 644 crores. EMP implementation cost is INR 18.44 crores. The proposed expansion will provide direct and indirect employment opportunity for about 400 persons.

14. After detailed deliberations on the proposal, the committee observed that the project proponent planned to enter the Bamnia Kalan & Sindesar Kalan deposit at 300mRL from Sindesar Khurd Mine, through a decline. Environment Clearance for 0.12 MTPA lead-zinc ore production, vide letter No. J-11015/455/2007-IA.II (M) dated 11-05-2011 has been obtained. However, the project has not been implemented. In the instant proposal, the PP proposed to increase the production from 0.12 MTPA to 1.5 MTPA (with RoM of 2.0 MTPA) by entering the deposit of Bamnia Kalan & Sindesar Kalan through a decline from the Sindesar Khurd Mine and utilize the infrastructure at Sindesar Khurd Mine. The committee expressed the concern that the surface area above the proposed decline is not falling in any mining lease and the proposal is extracting the deposit of one lease from entry made from other lease. The committee advised to get the clarification on the possibility of admitting as a single project as per the provisions in vogue from the DGMS / DMG. Therefore, **the proposal is deferred.**

2.14 Proposal under the provision of Notification S.O. 1530 dated 06.04.2018 for Gagal Limestone mine of with Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000 CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH from the mine lease area of 231.25 ha located at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh & Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh by M/s. ACC Limited. [File No. J-11015/130/2003-IA-II(M); Proposal No. IA/HP/MIN/81200/2018.]- Reconsideration of ToR.

1. The proposal of M/s. ACC Limited is for Gagal Limestone mine of with Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and subgrade mineral stacking 2,50,000CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH from the mine lease area of 231.25 ha located at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh&Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh. The Project Proponent submitted that mining lease area falls under Survey of India Topo-Sheet 53 A/15 and between Latitude: N 31° 23' 30.3 " to 31° 24' 57.50" N & Longitude: 76° 50' 15.5" to 76° 51' 8" E and in Seismic Zone -V.

2. The Project is Category A project as the mining lease area is more than 100 Ha as per S.O. dated 14.08.2018. The Proposal also involved Mineral Beneficiation (Wobblers). Due to this PP applied in Form-1 under Schedule 1(a) - Mining of minerals activity.

3. The has made application within the provision of Ministry's Notification S.O.1530(E) dated 6.04.2018. The proposal is placed in the present EAC meeting held during December 19-20, 2019, The Committee noted that as per the above notification the Project Proponent applied for ToR on 4th October 2018 i.e. well within the due date as per above notification and submitted the Form-1 & Pre-Feasibility Report.

4. PP reported that M/s ACC Ltd was accorded EC vide letter no J11015/130/2003-IA.II(M) dated 21st April, 2005 for the proposal of Expansion of Gagal Limestone Mine(1.5 MTPA to 4.5 MTPA) of M/s ACC Ltd., located in village Burmana, Tehsil Sadar, District Bilaspur, Himachal Pradesh.

5. PP reported that the instant proposal is of existing operative captive Limestone Mine (Area: 231.25 ha.) for Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000 CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh&Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh.

6. PP reported that the total mine lease area is 231.25 ha of which 20.0 ha is agriculture land, 103.02 ha is forest land and 108.23 ha is wasteland. Forest clearance has been obtained on 25.01.2001. PP reported that initially

mining lease was granted in favor of M/s. ACC Limited vide order no. 5-205 / 77- Ind (Glg) - 6253 dated 11.08.1978 by Director of Industries, Shimla, Government of Himachal Pradesh. Mining Lease deed was executed in favor of M/s ACC Limited for an area of 265.97 ha with effect from 10.02.1979 for 20 years. Further lease area of 231.25 ha was renewed vide letter no. Udyog-Bhu (Khani-4) Major-47 / 98-I-7556 dated 29.01.2003 for further terms of 20 years w.e.f. 19.02.1999 to 18.02.2019. Further as per provision of section 8A(5) of Mines & Minerals (Development & Regulation) Amendment Act, 2015, the period of above mentioned lease has been extended up to 31.03.2030 vide letter no. Udyog-Bhu (Khani-4) Major 47/98-I-2540 dated 09.06.2015 and Udyog-Bhu (Khani-4) Major - 47 / 98 - I -5133 dated 12.08.2015.

7. Mining operations is carried out by fully mechanized opencast method by utilizing Heavy Earth Moving Equipment (HEMM) in conjunction with deep hole drilling & blasting. Since Gagal Limestone Mine is a hilly mine, working will be from top to bottom by slicing method. The total mining lease area is 231.25 ha out of which PP proposed area to be mined is 62 ha mineral storage is 5ha, Infrastructure is 17.25ha and green belt is 147 ha. The project does not involve displacement of people. Entire mineral transportation 15,000TPD is by belt conveyors to the linked cement unit located at a distance of 1.5km. The total water requirement is 120 m³/day which is to be met from River Sutlej. Water table is 1600 m below mining level. There is no waste generation.

8. PP reported that Bandli Sanctuary is located at a distance of 4.1 kms for which PP has obtained recommendations from National Board for Wildlife vide letter No. 6-147/2015 WL (36th Meeting) dated 9th November 2015.

9. PP submitted the past production details for Limestone vide letter no UdyogBHU/BLP/Report/-1105 dated 10.01.2019 from 1993-1994 till 2017-2018. The committee observed disagreement between the figures of the Department of Mine and Geology records and also the records are given for each minerals. PP was in possession of EC for limestone only, whereas it is reported that Shale mineral was also mined clarification is needed by the PP.

10. The Committee suggested Ministry to examine the above proposal in light of NBWL Clearance, Forest Clearance, violation of SC Order dated 2.08.2017 and S.O. 141(E) dated 14.03.2017, if any applicable.

11. PP reported that a case is pending against the PP filed by M/s Archana Dutt in the Hon'ble High Court of Himachal Pradesh at Shimla, H.P.C.W.P. No. 708 of 2018 ArchanaDutt Petitioner Vs UoI & Othrs. The committee observed that the PP shall submit the latest status of the case.

12. **The proposal was placed in the 12th EAC Meeting held during December 19-20, 2019.** Based on the discussion held and documents submitted, the Committee observed that PP has not submitted the complete information, and further examination of the submitted information is required for assessment of compliance of the various provision of ministry notifications, OM and Hon'ble Court judgements. The Committee suggested PP to submit all the requisite information viz. *a) documents required as per*

*annexure-III(minerals wise) of agenda for examining the matter in light of common cause order dated 02.08.2017 and S.O. 804(E) dated 14.03.2017; (b) comparative details of all the figures (mineral, waste, OB, top-soil, land use, water requirement, etc.) mentioned in the previous EC and what is proposed now, (c) details of any modification/ expansion/ amendment/ change of scope of work/method of mining etc. if any carried out after grant of EC. The Committee also asked the Ministry to examine the matter for requirement of NBWL Clearance, Forest Clearance, violation of SC Order dated 2.08.2017 and S.O. 141(E) dated 14.03.2017. The Committee, therefore, **deferred** the proposal.*

13. Based on the ADS above and letter of the **Ministry vide letter dated 07.02.2020**, PP vide its letter No. ACC/GCW/ENV/2020-040 dated 28.04.2020 has submitted the following information/clarification:

Point No. 1: *PP submitted the past production details for Limestone vide letter No Udyog-BHU/BLP/Report/-1105 dated 10.01.2019 from 1993-94 till 2017 – 2018. The committee observed disagreement between the figures of the Department of Mine and Geology records and also the records are given for each minerals. PP was in possession of EC for limestone only, whereas it is reported that shale mineral was also mined. Clarification is needed by the PP.*

Reply: Data reported was as per annual return which was periodically submitted to IBM and accordingly data submitted & royalty paid to Mining & Geology department. Mineral wise production data authenticated by Mining department vide their letter dated 29.02.2020 is attached as **Annexure IA to the letter by PP.**

Further, In EC letter # J.11015/130-IA.II (M) dated 21st April 2005, Mining Plan with IBM approval date (13th April 2004) has also been mentioned., which was submitted to MoEFCC in which proposal of Limestone & shale production was incorporated. Total quantity (both Limestone & Shale) was restricted to 4.5 MTPA. Attached as **Annexure IB to the letter by PP.**

Point No. 2: *A case is pending against the PP filed by M/s. Archana Dutt in the Hon'ble High Court of Himachal Pradesh at Shimla, H.P.C.W.P. No. 708 of 2018 Archana Dutt Petitioner Vs UoI & Others. The committee observed that the PP shall submit the latest status of the court case.*

Reply: One no case has been filed by M/s Archana Dutt in the Hon'ble High Court of Himachal Pradesh at Shimla, H.P.C.W.P. No. 708 of 2018 Archana Dutt Petitioner Versus (1) Union of India and others) 2) The State of Himachal Pradesh through its Chief Secretary, Civil, Secretariat, Chotta Shimla, Shimla 171002 (H.P) 3) The Himachal Pradesh Pollution Control Board, Him Parvesh , Phase-III, New Shimla , Shimla 171009 (H.P) 4) M/s ACC limited, Galgal Cement works , Barmana, District Bilaspur -174013 (H.P.) 5) Ambuja Cement Darlaghat , District -Solan (H.P) 6) Ultra tech cement limited, Bagga, District Solan (HP) 7) Cement corporation of India, Rajban, district, Sirmoue (HP). Last Hearing was on 29.08.2019, with an order as "Adjourned by four weeks." **(Annexure II to the letter by PP)**

Point No.3: Documents required as per annexure III (mineral wise) of agenda for examination the matter in light of Common Cause order dated 02.08.2017 and S. O. 804 (E) dated 14.03.2017.

Reply: Annexure III of agenda is enclosed herewith as **Annexure III to the letter by PP.**

Point No.4: Comparative details of all the figures (mineral, waste, OB, Top Soil, land use, water requirement etc) mentioned in the previous EC and what is proposed now.

Reply: Details are given as per below:

S. No	Particulars	Details as per earlier EC and Mining Plan	Details as per present proposal (As per present Mining Plan)
1.	Limestone (Million TPA)	4.5 (including Shale)	4.5 (including shale & quartzite)
2.	Sub grade (Million TPA)	-	0.51
3.	Total Excavation (Million TPA)	4.50	5.01 (Dispatch will be restricted to 4.5 Million TPA and this sub grade mineral will be stacked separately because it cannot be used in present scenario as it contains very high magnesia and low Cao which is below the threshold limit defined by IBM)
4.	Existing Crusher (TPH)	400 and 1000	400 and 1000
5.	Water Requirement (KLD)	120	120

Comparison of land use at conceptual stage as per EC and as per present proposal is given below:

S. No.	Land Use Category	Details as per EC dated 21.04.2005 (In Ha)	Details as per present proposal (As per present Mining plan) (In Ha)
1.	Area to be excavated /Area under Excavation	62	68.57
2.	Mineral Storage	5.0	5.0
3.	Infrastructure (Mines Office,	17.25	18.0

	workshop, Part of Plant, Crushers and road)		
4.	Green Belt	147	128.86
5.	Undisturbed Area	0	10.82
	Total	231.25	231.25

Point No.5 Details of any modification/ expansion/ amendment/change of scope of work/ method of mining etc. if any carried out after grant of EC.

Reply: Details are given as per below:

S. No.	Particulars	Details as per EC	Details as per present proposal (As per present Mining Plan)
1.	Method of mining	Fully Mechanized opencast Method	Fully Mechanized Opencast Method
2.	Total Geological Reserves/ resources (million tonnes)	131.3	533.78 (Reserves may be increased after detailed exploration)
3.	Total Mineable reserves (million tonnes)	119.95	130.18 (Reserves may be increased after detailed exploration)
4.	Life of Mine (years)	30	26(as on 31.12.2017)
5.	Bench Height (m)	10	10
6.	Working Bench Width (m)	25	20
7.	Elevation Range (m AMSL)	560 to 884	560 to 884
8.	Ultimate Working Depth (m Bgl)	605 m AMSL	621 m AMSL up to 31.03.2030/ 550 m AMSL up to Life of the mine
9.	Number of Working Days	312	312
10.	Number of shifts per day	2	2

14. After detailed deliberations, the committee observed the following: -

- i. Initially EC vide letter no J-11015/130//2003-IA.II(M) dated 21st April, 2005 was granted for production of Limestone capacity from 1.5 MTPA to 4.5MTPA. However, the PP mined out both Limestone and shale. Shale production was started from 2003-04 onwards till now and quartz produced nil. Therefore, the production shale was amounts to be additional production over the EC granted to the project proponent. Therefore, the committee is of the view that this will amounts to be violation of EIA Notification, 2006 and subsequent amendments. The PP informed that the shale was envisaged in the mining plan and EMP

but not mentioned in the EC letter and they are under impression that the shale is implicit to the EC. The committee clarified that the mineral mentioned in the EC letter only shall be considered irrespective of the submissions of the PP in the application as that is considered by the Ministry.

- ii. Bandli Sanctuary is located at the distance of 4.1 km distance from the mine lease area PP obtained the EC on 21st April, 2005 and the NBWL is required from 2009 onwards. However, NBWL recommended on 9th November, 2015. Therefore, the mining operations from the 2009 (date of advertisement for obtaining the permission from the NBWL) to 8th November, 2015 are construed as without NBWL clearance. Thus, the instant proposal is attracting the orders of Hon'ble Supreme Court vide judgment dated 02.08.2017.
- iii. Court case is pending at Hon'ble High court of Himachal Pradesh Shimla H.P.C.W.P. No. 708 of 2018 Archana Dutt petitioner Vs UoI & Others. PP did not submit the status of the case.
- iv. PP mentioned total production capacity - 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000 CuM per annum (Maximum). PP did not mention the total excavation, production of mineral wise quantity, waste generation, OB/IB generation., etc.
- v. State Pollution Control Board also given consent for Limestone only.
- vi. No Affidavit as per the Ministry's OM dated 30.05.2018 has been submitted.

15. After detailed deliberations, the committee is of the opinion that the **instant proposal attracts the violation of EIA Notification, 2006.**

2.15 Proposed expansion of Chhotedongar Iron Ore Mine of M/s Jayaswal Neco Industries Limited with enhancement in iron Ore production from 0.05 MTPA to 2.95 MTPA, installation of crushing and screening facility along with installation of beneficiation unit of 1.0 MTPA capacity within mining lease area of 192.95 ha located at Chhotedongar Village, Tehsil and District Narayanpur, Chhattisgarh. [Proposal No: IA/CG/MIN/154941/2020; J-11015/62/2019-IA-II (M)] – Amendment in ToR.

1. The proposal of M/s Jayaswal Neco Industries Limited is for amendment in TOR granted vide letter no. J-11015/62/2019-IA-II (M) dated 20th March, 2020 w.r.t. exemption in the Public Hearing. The TOR was granted to M/s Jayaswal Neco Industries Limited for Chhotedongar Iron Ore Mine with enhancement in iron Ore production from 0.05 MTPA to 2.95 MTPA, installation of crushing and screening facility along with installation of beneficiation unit of 1.0 MTPA capacity within mining lease area of 192.95 ha located at Chhotedongar Village, Tehsil and District Narayanpur, Chhattisgarh.

2. The project falls under the category 'A' of item 1 (a) and 2(b) of the Schedule to the EIA Notification, 2006 as amended.

3. PP earlier had applied online vide proposal no IA/CG/MIN/108636/2019 dated 20th June 2019 for grant of ToR and submitted Form-1 & PFR. The proposal was considered in the EAC in its meeting held during 27-28 August, 2019. The Committee after detailed deliberations on the proposal recommended the proposal. The Ministry issued the Term of Reference (ToR) under the provisions of EIA notification, 2006 along with the specific Terms of Reference, additional and Standard conditions for undertaking EIA and preparation of Environmental Management Plan (EMP) vide Letter No. J-11015/62/2019-IA-II (M) dated 20.03.2020.

4. PP has now applied vide Proposal No. IA/CG/MIN/154941/2020 on 29.05.2020 seeking amendment in the above granted TOR w.r.t. exemption in the Public Hearing. PP vide its letter No. JNIL/SPD/Metal Mines/Chhotedongar/2020/ dated 22.05.2020 has requested for waiver of public hearing due to lockdown declared by the Government of India on account of COVID -19 Pandemic as well as maintaining social distancing including imposition of section 144 by the District Magistrates to contain the spread of COVID-19.

PP has stated that, *“The EIA study had started much earlier and it was completed and the draft ELA submitted to the Chhattisgarh Environment Conservation Board for conduct of public hearing. The proposal was forwarded by the Member Secretary, Chhattisgarh Environment Conservation Board to the District Collector of Narayanpur, Chhattisgarh. However due to declaration of continuous lockdown by the Government of India Ministry of Home Affairs, on account of COVID-19 Pandemic, as well as other restrictions imposed by the State Government by imposition of Section 144 across the State we don't foresee any probability to conduct the public hearing in near future. It was also given to understand that any gathering will not be allowed till end of August 2020.*

Since the project is an expansion project, for which earlier EC had been granted on the 5th of February 2007 wherein public hearing was conducted and the ELA report had been submitted after incorporating the views and suggestions which was obtained in the public hearing. Under the FCA 1980, Gramsabha had also been conducted under the provision of FRA, and all the suggestions obtained during the conduct of Gram Sabha had been implemented.

Keeping in view the current difficult situation due to spread of COVID-19 pandemic and imposition of section 144 by the State Government, we request that public hearing for this expansion of mine may please be waived.

Since the EIA / EMP is ready and stands submitted to the Chhattisgarh Environment Conservation Board, the same may please be accepted by the Expert Appraisal Committee (EAC), Non-Coal mining division for the grant of EC

for the Enhancement of Capacity of the aforesaid Iron Ore Mines.”

5. The committee informed that there is no provision under EIA Notification, 2006 for dispensing with the requirement of Public hearing in the unprecedented situations like pandemics and other force measure conditions. The committee was of the view that lockdown was over on 31.05.2020 and the country has moved to unlock phase. The committee suggested that the State Pollution Control Board and/or District Megistrate may explore the possibility for conducting Public Hearing with adequate social distancing and other safe guards as issued by the Government, from time to time, as practicing in other states like Telangana, at least to capture the concern of plausible and local people pertaining to the project site and aaprired the proposal with the concerned captured through such hearing and written comments, if any received from stke holders. Therefore, **the proposal is returned in the present form.**

2.16 Expansion of limestone Production Capacity from 0.45 MTPA to 1.0 MTPA with installation of 400 TPH crusher in Rajashree Limestone Mine No. 2 (M.L. Area- 400.70 ha) at Village – Basni, Tehsil– Merta, District–Nagaur (Rajasthan). [IA/RJ/MIN/7497/2005; J-11015/15/2005-IA.II(M)] - Consideration of EC.

1. The proposal of M/s Ultra Tech Cement Ltd. is for Expansion of limestone Production Capacity from 0.45 MTPA to 1.0 MTPA & installation of 400 TPH crusher of Rajashree Limestone Mine No. 2 (ML Area 400.70 ha). The mine is located in Village – Basni, Tehsil– Merta, District– Nagaur (Rajasthan). The mine area is a part of the Survey of India Topo sheet No 45F/14 bounded by Latitude 26°34'58.88” N to 26° 36'32.06” N and longitude 73°47'6.38” E to 73°49'16.02” E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category “A”, Project or Activity 1(a) the lease area is greater than 100 Ha.

3. PP submitted that Environmental Clearance for existing limestone production capacity of 0.45 MTPA was granted by MoEF, New Delhi vide Letter No. J11015/15/2005- IA. II (M) dated 17th November, 2005.

The PP vide proposal No IA/RJ/MIN/25414/2014 applied online for grant of ToR on 02.10.2014 and submitted Form-1 and Pre-Feasibility Report. The proposal was considered in EAC meeting held on April 29-30, 2015 wherein the Committee recommended for grant of ToR for Expansion of limestone Production Capacity from 0.45 MTPA to 1.0 MTPA & installation of 400 TPH crusher of Rajashree Limestone Mine No. 2 (ML Area 400.70 ha). The ToR was issued vide Lr. No. J J-11015/391/2014-IA-II (M) dated 08.06.2015. The ToR was valid till 07.06.2018.

Previous EC Application: Based on ToR issued vide Lr. dated 08.06.2015, PP applied for grant of EC vide proposal No IA/RJ/MIN/25414/2014. The Ministry sought essential details from PP on 12.10.2018, 04.05.2018 &

09.10.2018 and the PP replied the same on 25.04.2018, 25.09.2018 & 29.11.2018 respectively. The Proposal for EC was placed in EAC Meeting held during January 22-23, 2019. Based on the discussion held and documents submitted by the PP, the Committee deliberated the proposal and returned the proposal in present form so that PP can apply in Form-II along with following information:

- (a) On perusal of the mining plan submitted by the PP the Committee observed that insitu tentative excavation table mentioned at page no 55-56 of the approved modified mining plan does not provide the complete insight on year-wise total excavation. Thus, PP needs to submit the complete material balance (flow chart & tabular format) from initial excavation to final dispatch from this mining lease. The Committee also observed that production achieved mentioned in mining plan is not matching with the past production details certified by the DMG. The reason for submission of wrong information to IBM and reason for variation needs to be submitted.*
- (b) The Committee observed that PP has proposed to use the Jackhammer drills for drilling in limestone. The Jackhammer drills have high noise levels and do not have inbuilt water injection system. Thus, PP needs to re-look into the drilling & blasting parameter and machine used for limestone drilling. PP needs to submit the protective measure to be taken to reduce noise and dust emission due to drilling activity.*
- (c) The Committee observed that progress in plantation and green belt development is not upto the mark on viewing the KML file. The survival rate is also very poor (58%). The previous EAC in some other project of M/s UltraTech Limited noticed that the plantation is not up to the mark. But it seems that commitment from the top management is lacking somewhere. Thus, the Committee is of the view that PP should provide the list of all the mining lease held by UltraTech along with their KML file and status of green belt development and plantation carried out so far.*
- (d) The Committee is of the view that it appears from the KML file & survival rate (58%) that serious efforts were not taken by the PP for development of the green belt and plantation. Thus, Committee is of the view that PP should submit a) detailed plan in tabular format (year-wise for 30 years/life of mine whichever is earlier) for afforestation and green belt development in and around the mining lease area. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5 year interval for 30 years) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years and b) the PP has proposed for backfilling thus, PP should provide the area of the mining lease backfilled so far and proposal for the remaining period in tabular format with timeline, amount of material to backfilled, time period by which backfilled area will be reclaimed*

completely.

- (e) *PP should clearly bring out the source of water for this mining project and whether the PP has obtained NOC from Gram Panchayat for withdrawal of water or not. In addition to this, PP should justify the water requirement, measures to be adopted for optimize use of available water, submit water balance cycle, location of workshop & oil grease trap, type of water tanker used, route for transportation, length of road where water spraying will be done, requirement of water in crusher & screening plant etc.*
- (f) *The Committee observed that although the PP has applied within the validity of ToR but the base line data collected is quite old and PP should collect at least one-month fresh baseline data for consideration of the project. The air quality modeling has been carried out for production of 1.0 Million Tonne of limestone but there is also excavation of waste an installation of 400 TPH Crusher. The Committee thus of the view that PP should calculate the emission rate of all the activities contributing to air pollution, air quality modeling should be for total excavation, both controlled and worst case scenarios needs to be presented, GLC values of PM10, PM2.5, SOx & NOx needs to be submitted. For the transportation of mineral impact zone on both the side of the road needs to be provided along with isopleth, in case of transportation of the mineral on the road having agricultural fields on its either side then impact on the same needs to be accessed and provision for compensation in case damage to the crop need to be submitted.*
- (g) *The Committee observed that there is dis-satisfaction in the persons attended the public hearing for expansion of the project. Some of the facts are very shocking in nature like engaging children into blasting practices, the representative of the company has mentioned during the PH & EAC meeting that blasting practice is being executed by 3 blasters as well as 4 mining foreman. The PP in its presentation provided the details of the Statutory manpower engaged in the mine but there is no mention of blaster in the same. Further, in the employment detail mentioned in the approved modified mining plan there is no mention of the blaster and even mines manager. This shows lack of seriousness of the company in preparing legal documents such as mining plan. Thus, Committee is of the view that PP first submit the compliance of commitment made during previous public hearing. In addition to this each and every issue raised by local's villagers needs to be addressed with proper budget allocation and strict timeline for implementation of the same. The PP should submit a letter from Regional Office of DGMS which proves that company has engaged competent persons as per MMR, 1961 viz. Mines Manager, Blaster, foreman etc., details of the last inspection made by DGMS & IBM needs to be submitted.*
- (h) *The Committee observed that activities proposed in the CER has already been complied then what is the proposal for the future. Thus PP needs to submit the activity wise, time bound CER Plan along with budgetary allocation considering the present and further need of the local people and*

issues raised during public hearing.

- (i) The Committee observed that although there is no major non-compliance reported in the RO Compliance Report but as the report is almost three-year-old.*
- (j) In the EMP, PP has not addressed the fugitive emission from the crusher and screening plant, the Committee also observed that although PP has proposed pre & post-employment health check-up but activity wise time bound budget for the same is not explicitly mentioned, the Committee also observed that Ministry has finalized the Standard EC conditions for non-coal mining projects and PP should prepare the activities and budget allocation in line with the Standard EC Conditions. The clear time line activity wise for the activities proposed in EMP needs to be submitted with budgetary allocation.*
- (k) The PP has provided only capital cost of the project what about the recurring cost. Thus, details of the same needs to be provided. The PP should revise the cost of project based on the different activities proposed for this project.*
- (l) The PP & Consultant should give an undertaking that EIA/EMP Report and all documents submitted in this regard to the Ministry are factually correct and PP & Consultant are fully responsible for the same. The Committee observed that as the PP has applied earlier online Form-II was not submitted.*
- (m) The PP should approach State Government in case any violation of Common Cause Order dated 02.08.2017 for raising the demand if any. The Committee also requested the Ministry to examine the matter in light of Common Cause Order dated 02.08.2017 and S.O. 804(E) dated 14.03.2017 for any violation.*

The Ministry examined the proposal and vide its letter dated 15.03.2020 informed the PP of the same and specifically stating that, "it has observed that previously directions under Section 5 of EPA, 1986 was issued vide Lr No .J- 11015/350/2008-JA. IM) dated 27.10.2017 for some other mines of M/s UltraTech wherein EC Condition regarding development of the green belt was not complied with. Being one of the largest Cement Company of the Country and having well laid down Environment Policy it is prime reasonability of the Company to protect the environment and to comply with all the EC Conditions and other statutory requirements.

It has also observed from the DSS Analysis that mining has been carried out outside the mining lease boundary at some place (annexure) without leaving the statutory barrier of 7.5 metres as required as per regulation No. 111 of MMR, 1961. Thus, permission from DGMS if any obtained for reducing the mining lease boundary needs to be submitted. The mining activity should only be carried out in the allotted mining lease area thus a letter from Department of Mining & Geology, Rajasthan needs to be submitted in this regard if the mining

has not been carried out by M/s Ultra Tech Cement Ltd. Further, the onus of submission of the documents for the grant of EC is lies with Project Proponent. Thus, it is requested to submit the requisite information online and ensure that it is factually correct in all respect.”

Present Application:In response to above, PP has now applied for EC in Form-2 vide **Proposal No. IA/RJ/MIN/7497/2005 dated 13.05.2020. PP vide its letter No. UTCL/BW/Mine -2 MoEF&CC/2019-20/03729 dated 28.03.2020** has, inter alia, given the reference of the previous application as stated above and has submitted the reply to the additional details sought by the EAC and Ministry as above.

4. **Mining Lease:** The PP reported that initially mining lease (for larger area) was granted in favor of M/s. RSMM Ltd. on 29.10.1986, then transferred to M/s. Indian Rayon Industries Ltd. by the State Govt. vide order no. P.41 / 24 / Mine / Group-2/85 dated 30.06.1987. PP submitted that the first renewal of the lease was granted by the State Govt. for a period of 20 years from 29.10.1996 till 28.10.2016. PP submitted that lease was then transferred to M/s. Grasim Industries Ltd. on 01.07.2002. The PP submitted letter no. सखअ/गोटन/एम.एल.3/95/181 dated 29.08.2018 issued from Directorate of Mines and Geology, Gotan, Govt. of Rajasthan wherein it has mentioned that the State Government has approved the proposal of transfer of mining lease from M/s. Grasim Industries Ltd to M/s. UltraTech Cement Ltd. vide order dated 26.06.2018, deed was executed on 23.08.2018 and registered on 23.08.2018. PP submitted that as per the provision of MMDR Act, 2015, the mining lease has been deemed extended further up to 31st March, 2030. A formal letter to this effect has also been issued in the name of M/s. Grasim Industries Ltd. by the Assistant Mining Engineer, Directorate of Mines and Geology, Gotan, Govt. of Rajasthan, vide letter no. AME/GOTAN/CC.I/M.L. 3/95/135 dated 18.03.2015. The validity of lease period of M/s. Grasim Industries Ltd. has been further extended upto year 2036 vide letter no vide letter no. AME/GOTAN/CC I/ML 3/95/986 issued by Assistant Mining Engineer, Directorate of Mines and Geology, Gotan, Govt. of Rajasthan.

5. **Mining Plan:** The PP submitted that Modified Mining Plan has been prepared as per rule 17(3) of MCR, 2016 including Progressive Mine Closure Plan under rule 23B of MCDR, 1988 and the same has been approved in the name of M/s Ultra Tech Cement Ltd (Unit Birla White) vide letter no. 584(4)(3) (1634)/2015RCM-AJM/ 680 dated 8th June, 2016 under MCDR 1988/MCR, 1960.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

- 1) *Complete material balance in tabular format from initial excavation to final dispatch. (Source: Approved Mining Plan along with Progressive Mine Closure Plan, dated 09.06.2016)*
- 2) *Complete material balance in flowchart format from initial excavation to final dispatch from the mine.*

- 3) *Copy of Authenticated Past Production figures, production figures mention in Approved Mining Plan on page No. 18, and month wise production figures (enclosed as Annexure I to the letter by PP).*

(Note: Detailed reply available in PP's letter)

PP submitted that the method of mining shall be opencast semi-mechanized forming benches 3m-6m in height and maintaining an overall pit slope of 45° or less by using drilling and blasting. PP submitted that width of the working benches will always be maintained at least 20 m for safe, easy and convenient movement of mining machinery. PP submitted that the excavation of the overburden zone will be done by drilling 100 mm diameters holes by wagon drill machine and blasting and excavation of the ore zone will be done by drilling 34 mm diameter holes by jack hammer machine and blasting. In both the cases, blasting will be done by use of suitable explosives. PP submitted that the production of White cement grade limes tone (WCG) lime stone will be loaded by JCB on the trucks and part of it will be sent to the crusher located in the lease area and crushed material from crusher and the remaining WCG limestone from the pit will be sent to the white cement plant by road on trucks. The ROM obtained from the non- white cement grade (NWCG) limestone band will be loaded by JCB on trucks and will be sent to the crusher located in the lease area and crushed and screened for recovery of WCG lime stone. The WCG limes tone recovered from the crusher will be dispatched to the cement plant by road. PP submitted that the waste material generated from the OB zone will be loaded on dumpers by shovels and will be dumped in the exhausted part of the pits for backfilling. The waste generated from ore zone will be loaded on dumpers by JCB and will be dumped on the proposed site during 2016- 17 & 2017- 18 and then from 2018- 19 and onwards backfilled in the exhausted part of the pits for backfilling.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following

Drilling and Blasting:

- *At present drilling is being carried out by 100 mm diameter shot holes wagon drill machine and 34 mm diameter shot holes machine using the Jackhammer drill machine.*
- *The Company will replace the Jack hammer drill machines by using Crawler Mounted hydraulic wet drill machines with arrangement for wet drilling.*
- *Controlled blasting is being/will be carried out.*
- *Blasting is being/will be done by using non-electric shock tube detonator/delay system.*
- *Hydraulic Rock Breaker is used for breaking of oversized boulders in place of secondary blasting.*
- *Slurry & ANFO explosives are being/will be used for blasting.*
- *UTCL having Magazine for the storage of explosive along with explosive Van.*

Details about drilling and blasting parameters are given in table below:

S. No.	Parameters	Dimensions
1.	Bench height (m)	For Ore- m For OB- 6 m
2.	Dia of holes (mm)	100 mm
3.	Burden & Spacing (m)	4 m x 5 m
4.	Charge / hole	8 kg/m
5.	Powder Factor	6-7 tonnes/ kg
6.	Stemming Column (m)	30%
7.	Detonation	Delays in mili seconds between successive shots fired

Protective measure to be taken to reduce noise and dust emission due to drilling & blasting are as follows:

- Drilling will be done with sharp drill bits to achieve optimum drilling performance and to reduce noise generation at source.
- Drilling machines will be equipped with wet drilling/ dry fog system.
- Drill machines will also be equipped with proper dust collector system.
- Closed acoustic a/c cabin will be provided for drill operator.
- Proper maintenance (preventive as well as scheduled maintenance), oiling and greasing of HEMMs will be done to minimize generation of pollutants.
- Personal protective equipments i.e. Dust mask, earmuffs and earplugs will be provided to workers.
- Ambient Air Quality and Noise Level will be monitored regularly.

Conceptual Stage: At the end of lease period out of the total mining lease area (i.e. 400.70ha), total mined-out area will be around 130.34 ha; out of which 66.41 ha area will be reclaimed and backfilled followed by plantation and remaining 63.93 ha area will be converted into water reservoir. Greenbelt /plantation will be developed on 135.21 ha area (66.41 ha backfilled and 68.80 ha virgin area).

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following

M/s UltraTech Cement Limited (Unit: Birla White) has White Cement Plant at Kharia Khangar, Tehsil: Bhopalgarh, District: Jodhpur (Rajasthan) with production capacity of white cement 1.4 Million TPA and CPP 33.5 MW.

Birla White is a separate division from Grey Cement of UltraTech Cement Ltd. The company has right for providing the KML file and status of green belt development and plantation only for 2 mines of UTCL (Unit: Birla White):

- 1) Proposed Expansion of Limestone Production Capacity from 0.45

MTPA to 1.0 MTPA with installation of 400 TPH crusher of Rajashree Limestone Mine No. 2 (ML Area: 400.70 ha) at Village: Basni, Tehsil: Merta, District: Nagaur (Rajasthan)

2) Rajashree Limestone Mine No.1 (ML Area: 232.80) with production capacity of 1.5 Lakh tones at Village: Dhannapa, Tehsil: Merta, District: Nagaur (Rajasthan)

*PP w.r.t. KML File of both mines has stated in **Annexure II to the letter** that due to size constrain they are not able to upload the KML File of Mine 1 & Mine 2; hence they will enclosed the same file along with hard copy of ADS Reply.*

PP has further submitted Greenbelt development & Plantation status in tabular format as:

- 1) Table 1.4: Gist of plantation in Mine No - 2 as on 31st October 2019.*
- 2) Table 1.5: Existing Plantation Details of Rajashree Limestone Mine No. 2 ML No 03/1995 (Updated till 2019)*
- 3) Table 1.6: Gist of Plantation in Mine No Mine No - 1 as on 30th September 2019*
- 4) Table 1.7: Existing Plantation Details of Rajashree Limestone Mine No. 1, ML No 01/1991 (Updated till 2019)*

(Note: Detailed information available in PP's letter)

6. PP submitted that the total water requirement for the proposed expansion will be 19.5 KLD (5 KLD for Dust suppression on mine roads – 6 m wide, 2 KLD for dust suppression at loading point, 0.5 KLD for drinking, 9 KLD for greenbelt development and plantation on the backfilled area, 3 KLD for bathrooms, washrooms and toilets etc.) which will be fetched from the nearby villages and mine sump as and when developed. PP submitted that there is no need of clearance as water will be sourced from the nearby villages and mine sump as and when developed. PP submitted that elevation range is 300-323 mRL, general ground level is 320 MRL and ground water table is 145- 135 m bgl (175- 185 m RL). PP submitted that the ultimate working depth shall be 37 m bgl (283 m RL) which will be about 98 m above the ground water table. Thus, water table will not get intersected due to mining activities. PP submitted that garland drains will be provided all around the excavation to prevent flow of surface rainwater and from surrounding areas in the working pit. The drains shall be lined with stone masonry and shall be of adequate size to carry the storm water without overflow. The rain water which will get accumulated in working pit will be pumped out by diesel pump of adequate capacity. The rainwater collected in the excavated out area or in mine sump shall be collected and utilized for water spraying on haul roads and other dust prone areas. PP submitted that waste water generated at mine office shall be passed through oil-grease separator and the treated water is recycled /utilized for dust suppression.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Source of Water: Total water requirement for the proposed expansion will be 19.5 KLPD which is being/will be sourced from nearby villages (through tankers) & Mine Sump Water. NOC for withdrawal of water has been obtained from Gram Panchayat **vide letter no. dated 09.05.2019**. PP has enclosed copy of same as **Annexure –IV to the letter**.

Justification for water requirement:

Break-up of the same is given in table below

S. No.	Purpose	Water requirement (KLD)
1.	Dust suppression on haul roads	7
2.	Drinking & Sanitation	3.5
3.	Greenbelt development and plantation	9
	Total	19.5

In addition, PP has also submitted the **Water Balance Diagram as Figure 1.1** in its letter.

Air pollution control measures for crusher:

- Bag filters will be installed at crusher.
- Unloading point, transfer points, conveyor belts & screen will be covered.
- Wind breaking walls will be constructed.
- Plantation will be developed around the crusher.
- Atomized mist fog system will be provided at crusher.

- 3 KLD water will be provided for Crusher in addition to 19.5 KLD.

Measures to be adopted for optimal use of available water

- Due to dry area zone & water scarcity bag filters & dust collector system will be used.
- Drip irrigation system also adopted in mine for watering in plants.
- 5 KLD Capacity of Modular STP will be proposed and after treatment 3 KLD of water will be used for dust suppression.
- Atomized mist fog system will be used at Crusher hopper.

Location of Workshop and Oil grease trap: There is no proposal of Workshop and Oil grease trap in mining lease area. HEMMs are repaired and serviced on contractual basis outside the ML Area.

Type of water tanker: 2 Tractor type water tanker with 5000 litre capacity.

Length of road where water sprinkling will be done: 2.5 km

Requirement of water in crusher & screening plant: 3 KLD

Route of transportation: *Water is being/ will be sourced from nearby villages i.e. from Village Basni Seja (~2.0 km in NE direction) and Village Basni Siyacharana (~0.5 km in NE direction) (through tankers) & from existing mine sump of this mine.*

PP has shown the Transportation route and pit water location in the picture in its letter.

7. The PP submitted that greenbelt /plantation will be developed on 135.21 ha area (66.41 ha backfilled and 68.80 ha virgin area). Around 202815 saplings (99615 on backfilled area and 103200 on virgin area) will be planted till the end of life of mine. PP submitted that 1500 saplings of Albizia lebbeck, Albizia procera, Azadirachta indica, Melia azadirach, Dalbergia sisoo, Pongamia pinnata, Buteafron dosa, Musa paradisiaca, Ziziphus mauritiana, Citruslimon, Punicagranatum, Syzygiumcumini, Arto carpus heterophyllus , Phyllanthuemblica, Psidiumguajava and Annona squamosa etc. shall be will be planted per hectare of land.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

PP has submitted Detailed plan in tabular format (year-wise for 30 years/life of mine whichever is earlier) for afforestation and green belt development in and around the mining lease area as:

- 1) Table 1.8: Proposed Plantation Programme till 2036 (Mine No. 2)
- 2) Table 1.9: Proposed Plantation Programme till 2031 (land in ha) Mine No. 1, ML No 01/1991
- 3) A Surface plan showing the Greenbelt & Plantation is enclosed as Annexure III to the letter by PP.
- 4) Table 1.10: Proposed Backfilling Plan

(Note: Detailed information available in PP's letter)

8. PP submitted that there is no forest area involved in the mining lease area. PP has submitted a letter no. F ()Survey/DFC/2015- 16/6399 dated 06.11.2015 issued from Deputy Forest Conservator, Nagaur wherein it has mentioned that the lease area does not fall under the forest or plantation area and is approx 7km away from the forest nursery Lamabajata and approx 2km away from the old plantation area. PP has submitted that No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves (existing or proposed) etc. falls within 10 km of the mining lease area. PP submitted that The M.L. Area exists in Nagaur District of Rajasthan. Therefore, does not fall in Coastal Regulation Zone (CRZ). The project does not come under 'Critically Polluted Area' as per CEPI by CPCB. PP submitted that the mine lease area does not fall under 'Aravalli Range' as certified by Assistant mineral engineer, Department of Mines and Geology, Gotan vide letter no. AME/GOTAN/CC/MAJOR/ML 03/1995/362 dated 7th Sept. 2015.

9. The PP submitted that there is No Schedule- I species (according to

Wildlife Protection Act, 1972) was found in the study area during survey. PP has submitted Authenticated List of flora and fauna separately for core and buffer zone has been authenticated from Deputy Conservator of Forests, Nagaur, vide no. F () Survey/DCF/2015-16/6340 dated 04.11.2015.

10. The limestone in the instant case is a major mineral and requirement of District Survey Report (DSR) is not applicable in the instant case.

11. PP reported that One season primary baseline data for ambient air quality (as per CPCB Notification, 2009), water quality, noise level, soil and flora and fauna has been collected during Summer Season (March to May, 2015).

Comment of PD: Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Point wise Reply is given below:

i. The Committee observed that although the PP has applied within the validity of ToR but the base line data collected is quite old and PP should collect at least one-month baseline data for consideration of the project.

Reply: ToR Letter issued by MoEF&CC, New Delhi, vide letter no. J-11015/391/2014-IA.II (M), dated 08.06.2015. According to this Terms of References, Final EIA/EMP Report has been prepared & uploaded on MoEF&CC Web Portal, dated 05.09.2017 after conduction of Public Hearing within the validity period. This EIA/EMP Report also included the 3 Months Baseline study during March to May, 2015 and one month baseline data has been done i.e. February, 2019. PP in **Annexure V to the letter has stated that due to size constrain they are not able to upload Annexure V Baseline Monitoring Report, same Report will be uploaded along with hard copy of ADS Reply.**

ii. The air quality modeling has been carried out for production of 1.0 Million Tonne of limestone but there is also excavation of waste an installation of 400 TPH Crusher.

Reply: Air quality modeling has been carried out for total excavation (2.518 Million TPA) on 1.0 Million tones of Limestone along with stack details for proposed Crusher of 400 TPH Capacity. Details are given in the tables given in PP's letter:

1) Table 1.12: Total Excavation

2) Table 1.13: Stack Details for 400 TPH Capacity of Crusher.

iii. The air quality modeling has been carried out for production of 1.0 Million Tonne of limestone but there is also excavation of waste an installation of 400 TPH Crusher. The Committee thus of the view that PP should calculate the emission rate of all the activities contributing to air pollution, air quality modeling should be for total excavation, both controlled and worst-case scenarios needs to be presented, GLC values of

PM10, PM2.5, SOx & NOx needs to be submitted.

Reply: M/s UltraTech Cement Limited (Unit: Birla White) has an existing mine which is running since 1987. At present mine is operating with 0.45 Million TPA capacity of limestone production. At present total excavated area is about 60 ha with 10 developing pits. Mining practice involves clearing of vegetation, dozing of soil; drilling, blasting, excavation, loading of soil, overburden, waste and rejects into dumpers and its transportation to dump yards and stacking; transportation of partly limestone to crusher hopper (located outside the lease area). After crushing this crushed limestone & rest limestone directly dispatch to plant site (unloading) via road. After expansion, all the existing activities will continue along with one additional activity of crushing at mine site. In expansion, only limestone production capacity is to be increased within the existing premises. Emission Rate has been calculated for all the activities involved in this project is given in the form of Table 1.14 in its letter.

PP has submitted that Results of the above mentioned table indicates that the emission rate without applying of all control measures (i.e. worst case scenario) are higher as compare to the after applying of efficient control measures. It is observed that emission rate of PM10 & PM2.5 is found 0.0001091 & 0.0000436 gm/sec/m' respectively whereas after using the efficient control measures the emission rate goes down up to 0.0000872 & 0.00003491 gm/sec/m'. Hence, by the use of efficient control measures emission rate of PM10 & PM2.5 can be reduce up to 80-90%.

In a Limestone mining, all three types of sources are present and spread over a large area. Due to complexity in the mining activities, high source roughness and different types of small and large sources, USEPA regulatory model i.e. AERMOD is one of the suitable models which can take care all the sources and predict the pollutant concentration more satisfactorily. Prediction of incremental ground level concentrations (GLC's) due to Limestone Mine has been made by AERMOD version 8.2 as per CPCB guidelines.

PP has also submitted the following information:

1) Table 1.15: Impact prediction due to Mining & Transportation

2) Table 1.16: Impact prediction due to Mining Activity

The maximum incremental GLCs due to proposed activity and with existing capacity will be 90.04µg/m³ for PM whereas incremental value is 2.761µg/m³ and due to mining activity incremental value is found about 1.84 & 0.69 µg/m³ for PM10 & PM2.5 respectively. **PP in Annexure VI to the letter has stated that due to size constrain they are not able to upload Annexure VI Isopleths of Air Quality Modeling Report; same Report will be uploaded along with hard copy of ADS Reply.**

iv. For the transportation of mineral impact zone on both the side of the road needs to be provided along with isopleths.

Reply: The waste material generated from the OB zone & ore zone is being/will be loaded on dumpers by shovels and is being/will be dumped in the exhausted part of the pits for backfilling. At present about 1500 TPD excavated limestone is being loaded by excavators and dispatched to the cement plant by trucks via road. The total trips of 15 tonnes capacity of dumper/trucks required for transport of 1500 Tons (in a day) are 100 numbers. The number of trips per hour is 13 numbers. After expansion about 3333.33 TPD of limestone will be dispatch to cement plant by dumpers/trucks via road. The total trips of 15 tonnes capacity of dumper/trucks required for transport of 3333.33 Tons (in a day) will be 222 numbers. The number of trips per hour will be 28 numbers. Additionally, for the movement of dumpers within the mine for transport of 5060.00 tonnes per day of Top soil, OB & waste from development/working area to the Soil/Waste dumps, the total nos of trips of 15 tonnes capacity dumper/trucks will be 337 numbers. The number of trips per hour is 42. The movement of dumpers within the mine for mineral transport from mine face to the crusher emits gaseous emissions. Most of these dumpers are diesel fuel and emits mainly PM, SO_x, NO_x and CO emission. Crushed limestone will be transported from the Mine Site to captive Plant by trucks of 15 tonnes capacity via Road. This activity will generate both gaseous and particulate matter.

PP has submitted Estimated Emission Load of Particulate Matter & for Gaseous Emission in a tabular format **as Table 1.17.**

The maximum incremental GLCs due to the transportation for PM, CO, SO₂ and NO₂ are found 1.89, 0.10, 0.002 and 0.15µg/m³ respectively. Isopleth showing the maximum GLC are enclosed **as Annexure VI to the letter by PP.**

v. In case of transportation of the mineral on the road having agricultural fields on its either side then impact on the same needs to be accessed and provision for compensation in case damage to the crop need to be submitted.

Reply: This is an existing captive limestone mine having captive Cement Plant located at about distance of approx 15 km from the mine site. At present excavated limestone is being transported from existing mine to plant through the road of 15 km length. By using the 15 tonner capacity of dumper for transport of 1500 TPD of limestone at present total number of trips in a day are 100 and total trips per hour are 13 nos. whereas after expansion for transport of 3333.33 TPD of limestone total trips in a day will be 222 nos. & per hour will be 28 nos whereas after expansion of the limestone production capacity from 0.45 Million TPA to 1.0 Million TPA, total 222 nos. trips will be required in a day and 28 nos. trips will be required per hour for the transportation of 3333.33 TPD of limestone. Hence, after expansion,

there will be increase of 122 nos. of trips per day and 15 nos of trips per hour. At present, the Company is using 15 tonner capacities of dumpers. However, company can reduce number of trips by replacing the 15 tonner capacities of trucks with more capacity of trucks but the trucks which are being used for the transportation belong to the locals therefore from the employment point of view, existing trucks cannot be replaced with higher capacity of trucks. Due to transportation activities for this Limestone Mining Project the maximum incremental GLCs for PM, CO, SO₂ and NO₂ are found 1.89, 0.10, 0.002 and 0.15µg/m³ respectively. Along the 15 km transportation route network, some of the agriculture crop is present along the road. Agriculture pattern of this area is Rainfed therefore; Kharif is the main crop of this area. Main Kharif crops which are growing in this area are bajra, moong & pea. The Rabi crops mainly wheat, barley etc. are grown only in some patches where irrigation facilities are available by bore wells. Average Rainfall in study area is about 402.92mm. Minimum rainfall of about 173.82 mm was observed in year 2009 & maximum rainfall of about 622.93mm was observed in year 2010. Soil is sandy in nature. As study area falls in semi arid zone, hence agriculture dependency is quite less. This area is also surrounded by some other leases & plant, therefore people involved in transportation & many other operational activities of mine & plant for their livelihood. After expansion, there will be increase only some no. of trips including same transportation route area in same premises. Due to transportation some impact is observe nearest to mine boundary in NNE direction, MDR-75 road side and nearby road area of Basni Sejan, Tukliyan, and Talora Khurd Village not on agriculture. No major impacts have been envisaged in the surrounding areas within last 20-30 years and from the above observation it may seen no major impacts to be envisaged.

(Note: Detailed information w.r.t. Tables available in PP's letter)

12. PP reported that there is no court case/ litigation pending against the project.

13. Public hearing for the project was conducted on 18.03.2017 at Upkhand Karyalaya, Merta city, Tehsil Merta, District Nagaur at 11:00 A.M. PP submitted that the proceeding was chaired by Mr. Chandagiram Jhajhdiya, Additional District Collector, Nagaur. PP submitted that the advertisement for public hearing was published in „Dainik Navjyoti“ (15.02.2017) and „Dainik Bhaskar“ (15.02.2017). The major issues raised during the public hearing by the local people were related to blasting practices, employment, women empowerment, education, air pollution from haul road, disposal of overburden, electricity supply to locals, admission to local village children in company school, health issues of human and animals, drop of water table, , land acquisition & compensation issues, mining on fertile land, and safety issues of workers. The PP submitted that around 1711.29 lakh has been earmarked for CSR activities under Education, Health & Family Welfare, Sustainable Rural Livelihood, Social Welfare Issue,

Infrastructural Development and other miscellaneous activities for next four years. An amount of Rs. 19.35 lakhs have been earmarked for sustainable development for four years under CSR. Capital cost for EMP has been earmarked as Rs 1.1 Crore/annum with annual Recurring cost of Rs. 0.41 Crore. Blasting is being and will be carried out as per Approved Modified Mining Plan and guidelines laid under DGMS. An amount of Rs. 19.35 lakh has been allotted for Sustainable Rural Livelihood for next four years. An amount of Rs 763.34 lakhs has been earmarked for Education under CSR activities for next four years etc.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Company is having competent Mines manager, Blaster, Foreman, Mine Mate etc for mining and blasting operations.

- *A letter showing the list of Manpower which can work as a Blaster has been obtained from Ministry of Labour & Employment, Directorate General of Mines Safety, Government of India vide letter no. AR/DMS/34(6)/2019/1093, dated 20.02.2019. Same is enclosed as **Annexure VII to the letter by PP.***
- *Details of last inspection done by DGMS & IBM and reply of the same are enclosed as **Annexure VIII to the letter by PP***
- *Previous Public Hearing was held on 01.11.2003 in Merta City, Nagaur*
- *Compliance of commitment made during the last Public Hearing is enclosed as Annexure IX to the letter by PP.*

14. The PP did not mention about the CER in the EIA Report however in the presentation made during the EAC meeting held during January 22-23, 2019, the budget under CER is mentioned as 49.5 Lakh which includes i) installation of 5 KW solar power plant & supply line with LED light (Rs 30) lakh, ii) Women Empowerment (Rs 4.0 Lakh) and iii) Providing furniture (Rs 1.35 lakh) , computers (2.5 lakh), drinking water facilities (1.0 Lakh) , stationary to students (0.65 Lakh), and renovation work (Rs 10.0 Lakh) at Govt School of Village Basni cheja.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

*Company has earmarked Rs. 49.5 Lacs under CER. CER plan has been prepared based on issues raised during public hearing. PP has submitted the CER plan along with implementation status as **Table 1.19 in its letter.***

*PP has also submitted Photographs of same activities as **Annexure X to the letter.***

Proposed CSR Plan: Tentative CSR Plan of the M/s. UTCL (Unit: Birla White) along with budgetary allocation considering the present and further need of the local people and issues raised during public hearing is given as **Table 1.20 in the letter**. PP has submitted that Budget will be increased by 10 to 20 % as per the need of the local people.

15. PP has submitted that Compliance report of conditions stipulated in Environmental Clearance has been certified by Regional Office, MOEFCC, Lucknow vide Lr. No. IV/ENV/R/Mine-Z60/383/2005/745 dated 24.08.2015.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

*PP has submitted copy of Latest EC Compliance Report obtained from MoEF&CC, Regional Office vide letter no. IV/ENV/R/Mine-260/383/2005/49, dated 10.07.2019 as **Annexure XI to the letter**.*

16. PP Submitted that there is no any active dump outside lease area, hence no R&R issues involved.

17. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 1.1 Crore (Capital) & ₹ 0.41 Crore (Recurring) which include [for Pollution Control ₹ 11 Lakh (Capital) & ₹ 11 Lakh (Recurring), for Pollution Monitoring ₹ 6.7 Lakh (Capital) & ₹ 5.2 Lakh (Recurring), for Occupational Health ₹ 2.8 Lakh (Capital) & ₹ 2.8 Lakh (Recurring), for Green Belt/Mine/Township ₹ 1.0 Lakh (Capital) & ₹ 6.0 Lakh (Recurring), for Reclamation / Rehabilitation of mined out area ₹ 78.5 Lakh (Capital) & ₹ 8.0 Lakh (Recurring), for Others (specify) –Afforestation Fencing and Safety Zone ₹ 10.0 Lakh (Capital) & ₹ 8.5 Lakh (Recurring)].

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Air pollution control measures for crusher:

- *Bag filters will be installed at crusher.*
- *Unloading point, transfer points, conveyor belts–& screen will be covered.*
- *Wind breaking walls will be constructed.*
- *Plantation will be developed around the crusher.*
- *Atomized mist fog system will be provided at crusher.*
- *Crusher ramp area will be compacted/ cemented to avoid the fugitive emission.*

To control the fugitive emission from the crusher and screening

plant, UTCL will adopt the following measures:

- Use of Bag filters and dust collector, flexible curtains and Regular water spraying Mist fog system (Atomized water sprinkler) in Crusher hopper to arrest dust from becoming air-borne.
- Construction of wind breaking walls especially at charging hopper & crushing place.
- Development of green belt/plantation all around in the vicinity of the crusher to trap fugitive dust.

UTCL have already an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities.

Pre & post-employment health activities as per Standard EC conditions along with budgetary allocation are enclosed as **Annexure XII to the letter.**

PP has submitted Clear time line activity wise for the activities proposed in EMP along with budgetary allocation in the **Table 1.21 and 1.22 in the letter.**

(Note: Detailed information w.r.t. Tables available in PP's letter)

18. The Project Proponent submitted that Revised Cost – Capital Cost of the project is Rs. 15 Crore. Recurring cost @ Rs. 540 for 1.0 Million Tonnes limestone production is Rs. 54 crore. It includes wages, surface rights, Govt. Taxes, transportation and material cost. The project and shall give total employment to 39 persons.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Revised Cost – Capital Cost of the project is Rs. 15 Crore. Recurring cost @ Rs. 540 for 1.0 Million Tonnes limestone production is Rs. 54 crore. It includes wages, surface rights, Govt. Taxes, transportation and material cost.

S.No.	Particulars	Earlier Project Cost (In Crore)	Proposed Project Cost (In Crore)
1.	Land Cost	7.25	11.0
2.	Machineries	2.0	3.0
3.	Infrastructure	0.75	1.0
Total		10.0	15.0

Note: This calculation has been done on the basis of peak production capacity.

19. The PP has submitted the disclosure of the consultant wherein it has mentioned that the J.M. EnviroNet Pvt. Ltd. who has been is accredited with IS O-9001: 2008 for EIA Division. EIA Division is also approved by National Accreditation Board for Education & Training (NABET) formerly NRBPT (Quality Council of India), Certificate no. NABET/E IA/1013/002 dated 17th May 2010.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

Undertaking from PP and Consultant for the same is enclosed along with EIA/EMP Report. Form-II has been filled on Parivesh Web Portal.

20. The PP has submitted undertaking for the compliance of Common Cause Order dated 02.08.2017 & other Statutory requirement in pursuant to Ministry's O.M dated 30.05.2018.

Based on ADS of previous application as detailed in point no. 3 of this summary, PP has submitted the following:

*The affidavit provided by UTCL is as per Ministry's O.M No 3-50/2017 - IA. H(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. Copy of same is enclosed as **Annexure XIII to the letter.***

*Letter regarding confirmation of any demand as per Hon'ble Supreme Court Order dated 02.08.2017 passed in CWP No 114/2014 (Common Cause Vs Union of India & Ors.) has been submitted to the Additional Chief Secretary, Mines and Petroleum, vide letter no UTCL/BW/Mines/2019-20/1870 dated 30.09.2019. Copy of same is enclosed as **Annexure XIV to the letter.***

21. In addition to the ADS sought by the Committee as detailed in point 3, the Ministry has sought additional information in its letter dated 15.03.2020, the information regarding which is submitted by PP point-wise as below:

- (i) **Point:** *In view of the above, the matter was examined in the Ministry and it was observed that previously directions under section 5 of EPA, 1986 was issued vide letter no. J- 11015/350/2008-IA. II (M) dated 27.10.2017 for some other mines of M/s. UltraTech wherein EC condition regarding development of the green belt was not complied with. Being one of the largest Cement Company of the Country and having well laid down Environment Policy it is prime responsibility of the company to protect the environment and to comply with all the EC conditions and other statutory requirements.*

Submission of PP: Environmental Clearance for Mine 2 has been

obtained by MoEF&CC, New Delhi vide letter no. J-11015/15/2005-IA.II (M), dated 17.11.2005. General as well as Specific conditions of this Mine is being complied and report submitted regularly. Certified Compliance Report of the same has been enclosed as **Annexure XI to the letter**.

Previously directions under section 5 of EPA 1986 was issued (i.e. show cause notice) vide letter no. J-11015/350/2008-IA. II (M) dated 27.10.2017 against the Mohanpura Jodhpura Limestone Mining Project with production capacity of 6.0 MTPA in ML Area of 548.78 ha, located at Village Mohanpura-Jodhpura, Tehsil: Kotputli, Distt: Jaipur, Rajasthan.

Reply for the same has been submitted vide letter no. UTCL/KCW/MINES/MoEF/2017- 18/84, dated 14.11.2017 and Ministry has revoked the show cause notice, dated 29.11.2019.

- (ii) **Point:** *It has also observed from the DSS analysis that mining has been carried out outside the mining lease boundary at some place (annexure) without leaving the statutory barrier of 7.5 meters as required as per regulation No. 111 of MMR, 1961. Thus, permission from DGMS if any obtained for reducing the mining lease boundary needs to be submitted. The mining activity should only be carried out in the allotted mining lease area thus a letter from Department of Mining & Geology, Rajasthan needs to be submitted in this regard if the mining has not been carried out by M/s. UltraTech Cement Ltd. Further, the onus of submission of the documents for the grant of EC is lies with the project Proponent. Thus, it is requested to submit the requisite information online and ensure that it is factually correct in all respect.*

Submission of PP: A letter has been obtained from Department of Mining & Geology; Gotan, Rajasthan stating that ML Mine No. 3/1995 has been part transferred from M/s RSMM Ltd. to M/s UltraTech Cement Ltd. (Unit: Birla White). ML Mine No 5/1995 is in favor of M/s RSMM Ltd. Earlier ML No. 3/1995 was a part of ML no. 5/1995 of M/s RSMML and therefore now shares common boundary. Both ML nos have a common pillar and there is no vacant area between the two mining leases and both companies have worked in their mining lease. The above said letter has been enclosed as Annexure XV. Further, it is also observed that some times, local people undertake illegal mining activity in this belt and the mines management bring such activities in the knowledge of regulatory agencies and administration. In this connection, a copy of such FIR is enclosed as **Annexure XVI to the letter**.

Considering above, UTCL gives the following undertaking:

- UTCL is undertaking mining operation as per the proposal and all the terms & conditions mentioned in Approved Mining Plan.
- UTCL has not carried out any mining activity outside the lease

boundary.

- Illegal mining operations are being carried out in this belt area by locals an FIR has been filed by the company against the same.

22. After detailed deliberations, the committee observed that even after 30 years of commencement of mining operations, the project proponent was failed to carryout the plantation along the boundary of mining lease area. The committee is of the view that the project authorities are least concern on the environmental safeguards and the committee expressed dissatisfaction on the implementation of the environmental safegaurds. Therefore, the committee suggested to takeup the plantation in the ensuing monsoon (Monsoon of 2020), as it was already set, and take all the precausionery measures for survival of the same. Subsequently, the PP can approach for further clearance along with certification by local DFO or Regional officers of the Ministry on the compliance of the plantation along the boundary. Meanwhile, **the committee recommended for grant of EC for a period of one-year** subject to the following specific conditions in addition to the standard conditions.

- i. Plantation shall be carried in 101.21Ha of lease area at the end of life, inter aila, including 16.80Ha in dump area; 18.00 Ha in non-mineralized area; 66.41 Ha in backfilled area and plantation along the boundary of ML area in the ensuing monsoon (i.e. monsoon of 2020), species shall be native to the area and selected in consultation with state forest department, and plantation record shall be maintained, gap plantation shall be carried and grassing as per the directions of the Hon'ble SC.
- ii. As proposed, Rs. 38 lakhs shall be provided against the CER activities proposed to be taken up within 3 years.
- iii. The trnapsortation road from the mine to cement plant shall be properly maintained, water sprayed regularly, avenue plantation both side of the road for control of fugitive dust emission.
- iv. Total water Requirement shall not be more than 19.5 KLD (16.5 KLD Fresh Water + 3.0 KLD Treated Water).
- v. Total excavation shall not be more than 2.518 MT including the ROM 1.23 MT.
- vi. Controlled blasting shall be carried out using the down the hole detonating system and NoNELS.
- vii. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.

24TH JUNE

2.17 Mining of Mineral Bajri (Minor Mineral) with proposed production capacity of 1.12 Million TPA (ROM) by lessee Shri Abhishek Chaudhary, located at Revenue Village(s) of Tehsil-Raipur, District-Bhilwara, Rajasthan (MLA 836.13ha). [F. No. J-11015/232/2013-IA.II (M); Proposal No. IA/RJ/MIN/20302/2013] – Consideration of EC

1. The proposal of lessee Shri Abhishek Chaudhary, Bhilwara, Rajasthan is for mining of Bajri (Minor Mineral) with proposed production capacity of 1.12 Million TPA (ROM). The mine lease area is located at Revenue Villages of Tehsil –Raipur, District–Bhilwara in the mine lease area of 836.13ha. The mine lease area lies on Kothari River. The Latitudes and Longitudes of the mine lease area lies between 25°23’32.61” N to 25°20’41.03” N and 74°01’7.64” E to 74°18’52.35” E on Survey of India toposheet numbers 45 K/2, 45 K/3, 45 K/6, 45 K/7. The Project is located in Seismic zone-II.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A or Activity 1(a) as the mining lease area is greater than 100 ha.

3. The proposal of TOR was considered by the Expert Appraisal Committee in its 11th Meeting held during 25th - 27th September, 2013 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TOR was issued by MoEFCC vide letter no. J-11015/ 232/ 2013-IA.II (M) dated 17.10.2013. PP vide Proposal No. IA/RJ/MIN/20302/2013 dated 01.04.2015 applied for Environmental Clearance for Bajri Mine (Minor Mineral) Production Capacity 5.60 million TPA located at Revenue Village(s) of Tehsil Tonk, District Tonk, Rajasthan (2389.36ha). The Proponent submitted the EIA/ EMP Report online to Ministry for seeking Environmental Clearance after conducting Public Hearing. The proposal was considered in the EAC Meeting held during August 25-27, 2015 wherein the Committee deliberated at length the information submitted by PP and recommended the Proposal for Environmental Clearance for Mining of Mineral Bajri with proposed production capacity of 1.12 Million TPA (ROM). However, the Ministry referred back to the EAC in view of the issuance of Sand Mining Guidelines, 2006 and requirement of replenishment study for grant of EC for riverbed sand mining. The proposals were reconsidered in the meeting of EAC held during 24-25 Oct 2016, January 8, 2018 and May 30-31, 2018 wherein the EAC deferred the proposal for want of requisite information from PP and State Government. The project proponents submitted the following information submitted on 16.05.2020:

S. No.	INFORMATION/CLARIFICATION	COMPLIANCE
1)	Complete appraisal of the EIA/EMP report along with ToR compliance and other mitigation measures, if not done earlier	Complete Appraisal of EIA/ EMP Done on EAC Meeting held on 25 August 2015 and EAC Recommended the Proposal for EC.

2)	Details of Scientific Replenishment Study report needs to be presented wither other requisite information.	Details of Scientific Replenishment Study report along with other requisite information is enclosed by PP.
3)	DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department	DMG, State Govt. submitted demarcated river stretch through latitude and longitudes (out of total lease) where river sand / Bajri mining can be permitted based on available reserves and original ground level(OGL) at each cross-section in consultation with irrigation department. PP has enclosed the document.
4)	PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate	Project proponent and consultant submitted the latitude and longitudes of the identified cross-section duly authenticated by state govt. which used for replenishment study and for calculation of replenishment amount/rate. PP has enclosed the document.
5)	PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota	An undertaking is attached here with regarding the use of scrapper for mining to ensure mining depth be maintained as 1.0 meter (max) from original ground level and other heavy machinery like bucket excavators, JCB machines etc. will not be used. This may adversely impact the aquatic bio data.PP has submitted the <u>Undertaking dated 26.02.2020.</u>
6)	State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and	As the mining operations suspended by honorable supreme court thus leveled cross section not prepared and submitted before the onset of next rainfall season.

7)	State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.	District Survey Report (DSR) is <u>Enclosed by the PP which is incomplete copy.</u>
8)	The Committee deliberated the issues and is of the view that Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.	LOI issued by the state Govt. is valid vide letter no. P10 (1) Mine/Group-2/2013 dated 27.02.2013 issued by Department of Mines & Geology, Government of Rajasthan. (Enclosed by PP. LOI is valid for 5 years only).
9)	The PP is required to submit the sections clearly marking the lateral and depth extents of present ground profile as well as proposed excavation profile at individual sections. The same needs to be verified/approved by the State Mines and Geology Department, Govt. of Rajasthan	Plan & Sections clearly Showing the lateral and depth extents the Material will be excavated, present ground profile as well as proposed excavation profile at individual sections duly verified/Approved by State Mines & Geology Department, Govt. of Rajasthan is Enclosed by PP.
10)	The PP needs to submit a database in structured tabulated form clearly mentioning the nomenclature of the section line, latitude and longitude of both the extents of section line, chainages and respective levels (RL, AMSL) of all the points taken on that section line. That means with the help of this database profile of ground at that section line can be drawn with the help of suitable CAD software.	A database is structured tabulated from clearly mentioning the nomenclature of the section line, latitude and longitude of both the extents of section line, Chainage and respective level RL of all the points taken on that section line with the help of this database profile of ground at that section line can be drawn with the help of CAD software. Enclosed by PP (Section wise CSV)
11)	Thus with the help of existing ground profile and proposed extents of excavation considering the stipulations of lateral extents of sustainable sand mining guidelines, as mentioned above,	Estimation of Proposed Quantum of excavation in Tonne with the help of specific gravity verified by State Department of Mines & Geology between every two consecutive

	<p>The PP shall estimate the proposed quantum of excavation in tonnages with the help of Specific Gravity verified by the State DMG between every two consecutive sections. Such estimation shall be furnished by the PP in tabular form which includes the nomenclature of section lines, area proposed for excavation, distance between two consecutive section lines, volume, specific gravity, tonnage of the mineral, maximum depth extent from existing ground profile. Respective plans shall also be submitted clearly marking the area to be excavated. The same needs to be verified by the State Mines and Geology Department, Govt. of Rajasthan. In addition to this a composite plan mentioning the above proposed excavation zones for the entire mine lease area also needs to be submitted. Thus PP needs to submit a plan clearly showing the area to be put in under excavation and no excavation zones. Respective KML files of such lateral extents of excavation and no excavation zone within ML shall also be submitted by the PP.</p>	<p>sections done with the help of existing ground profile and proposed extents of excavation considering the stipulations of lateral extents & Sustainable Sand Mining Guidelines given at</p> <p>Estimation of quantity furnishable in tabular form and includes the nomenclature of section lines, Volume, Specific gravity, tonnage of the mineral, Maximum depth extent from existing ground profile, Plans showing the area to be excavated is given in Plate No-5 in Replenishment Report.</p>
<p>12)</p>	<p>PP needs to submit a plan clearly mentioning the width of river, lease boundaries, area left under safety zones as prescribed as per Sustainable Sand Mining Management Guidelines, 2016, as per statutory requirements under Rajasthan Minor Mineral Concession Rules and other competent authority.</p>	<p>A plan clearly showing the width of river lease boundary area left under safety zone as prescribed as per Sustainable Sand Mining Management Guidelines 2016 (Enclosed by PP).</p>
<p>13)</p>	<p>It was found that the plans and sections were not depicting the dates (period) of survey further in order to ensure the ground survey PP should submit the dates</p>	<p>Plan & Sections the dates of Survey. A field Book showing the date (period) of Survey, The model Number & detail of the instruments used. Field</p>

	(period) of survey, the model no & details of the instrument used for such survey, field recordings and observations along with name, signatures and contact details of the Surveyor explicitly be mentioned and recorded in the field book as well as in Plan & Sections.	recordings and observations along with name, Signature and contacts details of the Surveyor mentioned and recorded in the field book is enclosed by PP.
14)	In addition to this soft copy (Excel or CSV file, DWG file) of all such survey recordings should also be submitted in proper order & sequence in order to cross check & verification samples checks of sections.	PP has submitted that CD of the Soft Copy of excel or CSV file, DWG files of all Survey recordings area in proper order & sequence will be submitted during presentation.
15)	The Committee deliberated the issues w.r.t. erection of pillars and accordingly suggested that the PP needs to erect the pillars with the following specifications and submit the details (in table form) of the same along with photographs. The specifications inter-alia are as (a) the distance between two adjacent pillars shall not be more than 100 meters; (b) the pillars shall be of square pyramid frustum shaped above the surface and cuboid shaped below the surface; (c) each pillar shall be of reinforced cement concrete; (d) the pillars shall have a base of 0.30m X 0.30m and height of 1.30m of which 0.70m shall be above ground level and 0.60m below the ground; (e) all the pillars shall be painted in yellow colour and the top ten cm in red colour by enamel paint and shall be grouted with cement concrete; (f) on all the pillars, distance and bearing to the forward and backward pillars and latitude and longitude shall be marked; (g) each pillar shall have serial number in a clockwise direction and the number shall be	Project Proponent erected the pillars with the following specifications: i. The distance between two adjoining pillars is not more than 100 meters. ii. The pillars are of square pyramid frustum shaped above the surface & cuboid shaped below the surface. iii. Each Pillars are of Reinforced cement concrete. iv. Each pillars having base of 0.3mtrs x0.3mtrs and height of 1.30mtrs of which 0.7mtrs are above ground & 0.6mtrs below ground. v. All Pillars are painted in yellow colour and top 10cm in red by enamel paint and grouted with cement concrete. vi. Distance backward & forward bearing with latitude & longitude marked on the pillar. vii. Each Pillar are numbered in clockwise direction and number engraved on the pillar. viii. The Number of pillars is the number of individual pillars

	<p>engraved on the pillars; (h) the number of pillar shall be the number of the individual pillar upon the total number of pillars in the lease; and (i) the tip of all pillars shall be a square of 15 cm on which a permanent circle of 10 cm diameter shall be drawn by paint or engraved and the actual boundary point shall be intersection of two diameters drawn at 90 degrees.</p>	<p>upon the total number of pillars in the lease. ix. The tip of the pillar is square of 15 cm on which a permanent Circle of 10cm diameter drawn. (PP has submitted that Pillar photographs will be submitted during the presentation)</p>
16)	<p>PP shall submit the compliances as per the Ministry's Office Memorandum No.350/2017-IA.III(Pt.), dated 30.05.2018 by an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. w.r.t. judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.</p>	<p>PP has submitted the affidavit vide No. AX 931519 dated 26.02.2020.</p>

4. The EAC deliberated on the submissions made by the project proponent and presentation made by the consultant in its meeting held during 22-24 June, 2020 and advised the project proponent to submit the following information, as sought for the proposals deliberated during the 5th - 6th May, 2020, for further consideration:

- i. In the replenishment study report details such as area under 7.5 meters statutory barrier, area under ¼ width of the river, area under ¾ width of the river for both lease area and area demarcated by DMG needs to be mentioned. In addition to these details of the reserve available and block therein needs to be provided along with plan and section for area demarcated by DMG. In the study report the safe extractable volume and tonnage needs to be defined after the deducting the block reserves. The slice plan for the mining in the safe extractable zone needs to be provided in the report. The field book for pre & post monsoon needs to be provided as same was not included in the presentation.

- ii. The details of the area to be utilized & not to be utilized for mining, as approved mining plan at the end of 5 years needs to be provided. Whether area demarcated by DMG comes under the utilized zone or un-utilized zone. In addition to this, area required for mining in the next 5 years needs to be provided with proper justification. The details of any prohibited area within the LOI area or demarcated area needs to be provided.
- iii. Mining is proposed in the small area and still large area is left how PP will ensure to curb illegal mining in the demarcated area and rest of the area falling in the lease (provision of Enforcement and Monitoring Guidelines for Sand Mining ,2020 shall be referred for the same). In addition to this budget for installation surveillance equipment like CCTV, security guards weigh bridge etc., needs to be provided. The mining intensity of the original proposal considering larger area and the current proposal shall be compared and explained, as there is significant difference in mining intensity per Ha area.
- iv. PP needs to submit the compliance of ToR points wherein certificate is required for involvement of no forest land, distance from the protected area, authenticated list of schedule-1 species, conservation plan for schedule-1 species and proof of its submission to Chief Wildlife Warden if not already submitted. PP shall ensure that all these documents along with Annexure to EIA Report and other documents submitted to the ministry should be uploaded online on PARIEVSH Portal for public viewing.
- v. PP needs to submit a letter from the State Government that there is no violation of Common Cause Judgment dated 2.08.2017 in respect of this mining proposal and there is no production before the SC Order dated 25.11.2013 & after SC Order dated 16.11.2017. An undertaking in this may also be submitted.
- vi. The PP needs to submit time-bound, activity-wise action plan for EMP, Occupational Health, Planation, and CER along with the budgetary provision. In addition to details of Environmental Management Cell to be established for implementation of EMP needs to be submitted along with details of manpower and cost.
- vii. PP needs to ascertain the impact of transportation and details of transportation route viz. (length of the road, type of road, passing through the village or habitation) and mitigative measures to be taken for abatement of pollution due to transportation. The budget for the same needs to be provided.
- viii. In case there any proposal for utilization of land outside the mining lease for transportation with a mutual agreement with villagers then details of the same needs to be provided along with proposed compensation details.

- ix. PP needs to re-estimate the requirement of water for plantation, dust suppression and domestic use. The source of water needs to be mentioned. The cost of water tanker etc. needs to be mentioned in EMP.
- x. PP needs to confirm that is there any other homogeneous mining lease within 500 meters of this lease and forming cluster. If, yes details of the same needs to be provided.
- xi. It has observed that PP has changed the consultant a letter in this regard needs to be submitted in pursuant to Ministry's O.M. No. J-11013/41/2006-IA. II(I) dated 17.03.2010.
- xii. PP has provided details of many court cases which are on various issues. Therefore, PP needs to provide status of the case wherein the case is pertaining to issue of grant of EC to present proposal, grant of LoI, illegal mining by PP etc. The Complete details and status of the same needs to be provided.

5. Therefore, **the proposal is deferred** for above information.

2.18 Sub: Mining of Mineral Bajri (Minor Mineral) with proposed production capacity of 0.84 Million TPA (ROM) by Shri Ashu Singh Bhati, located at Revenue villages of Tehsil Shahpura, District-Bhilwara, Rajasthan (MLA 624.39ha)[F. No. J-11015/286/2013-IA.II (M); Proposal No. IA/RJ/MIN/20582/2013] – Consideration of EC

1. The proposal of Shri Ashu Singh Bhati is for mining of Bajri (Minor Mineral) with proposed production capacity of 0.84 Million TPA (ROM). The mine lease area is located at Revenue villages of Tehsil – Shahpura, District – Bhilwara in the mine lease area of 624.39ha. The mine lease area lies on Khari and Mashi River. The Project is located in Seismic zone-II. The Lease area falls on Survey of India toposheet number 45K/13, 45K/14, 45O/1 and 45O/2. The Latitudes and Longitudes of the mine lease area as below:

Zone	Latitudes	Longitudes
Zone - I	25°52'42.86" N to 25°46'05.84"N	74°52'03.21" E to 74°06'46.70" E
Zone –II (A)	25°48'15.32" N to 25°46'05.84"N	74°45'31.08" E to 74°06'46.70" E
Zone – II (B)	25°40'06.02" N to 25°44'00.95" N	74°47'09.75" E to 74°57'11.6" E

2. **Category of Project:** As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A or Activity 1(a) as the mining lease area is greater than 100 ha.

3. **ToR & EC Application:** The proposal of TOR was considered by the Expert Appraisal Committee in its 13th Meeting held during 12th November, 2013 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TOR was issued by MoEF&CC vide letter No. J-11015/286/2013-

IA.II (M) dated 09.12.2013. The Proponent submitted the EIA/ EMP Report online to Ministry for seeking Environmental Clearance after conducting Public Hearing.PP vide Proposal No. IA/RJ/MIN/20582/2013 dated 05.05.2015 applied for Environmental Clearance for mining of Bajri (Minor Mineral) with proposed production capacity of 0.84 Million TPA (ROM). The mine lease area is located at Revenue villages of Tehsil – Shahpura, District –Bhilwara in the mine lease area of 624.39ha.The Proposal of EC was appraised before the Expert Appraisal Committee in its meeting held during August 25- 27, 2015.The Committee deliberated at length the information submitted by PP and recommended the Proposal for Environmental Clearance for Mining of Mineral Bajri with proposed production capacity of 0.84 Million TPA (ROM).However, the Ministry referred back to the EAC in view of the issuance of Sand Mining Guidelines, 2006 and requirement of replenishment study for grant of EC for riverbed sand mining. The proposals were reconsidered in the meeting of EAC held during 24-25 Oct 2016, January 8, 2018 and May 30-31, 2018 wherein the EAC deferred the proposal for want of requisite information from PP and State Government. The project proponents submitted the following information submitted on 16.05.2020:

S. No.	INFORMATION/CLARIFICATION	COMPLIANCE
1)	Complete appraisal of the EIA/EMP report along with ToR compliance and other mitigation measures, if not done earlier	Complete Appraisal of EIA/EMP Done on EAC Meeting held on 25 August 2015 and EAC Recommended the Proposal for EC.
2)	Details of Scientific Replenishment Study report needs to be presented wither other requisite information.	Details of Scientific Replenishment Study report along with other requisite information is enclosed by PP.
3)	DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department	DMG, State Govt. submitted demarcated river stretch through latitude and longitudes (out of total lease) where river sand / Bajri mining can be permitted based on available reserves and original ground level(OGL) at each cross-section in consultation with irrigation department. PP has enclosed the document.
4)	PP and Consultant to submit latitudes and longitudes of the identified cross section, duly	Project proponent and consultant submitted the latitude and longitudes of the

	authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate	identified cross-section duly authenticated by state govt. which used for replenishment study and for calculation of replenishment amount/rate. PP has enclosed the document.
5)	PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota	An undertaking is attached here with regarding the use of scrapper for mining to ensure mining depth be maintained as 1.0 meter (max) from original ground level and other heavy machinery like bucket excavators, JCB machines etc. will not be used. This may adversely impact the aquatic bio data. <u>PP has submitted the Undertaking dated 26.02.2020.</u>
6)	State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and	As the mining operations suspended by honorable supreme court thus leveled cross section not prepared and submitted before the onset of next rainfall season.
7)	State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.	District Survey Report (DSR) is <u>Enclosed by the PP which is incomplete copy.</u>
8)	The Committee deliberated the issues and is of the view that Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.	LOI issued by the state Govt. is valid vide letter no. P10 (9) Mine/Group-2/2013 dated 27.02.2013 issued by Department of Mines & Geology, Government of Rajasthan. (Enclosed by PP. LOI is valid for 5 years only).
9)	The PP is required to submit the sections clearly marking the lateral and depth extents of present ground	Plan & Sections clearly Showing the lateral and depth extents the Material

	<p>profile as well as proposed excavation profile at individual sections. The same needs to be verified/approved by the State Mines and Geology Department, Govt. of Rajasthan</p>	<p>will be excavated, present ground profile as well as proposed excavation profile at individual sections duly verified/Approved by State Mines & Geology Department, Govt. of Rajasthan is Enclosed by PP.</p>
10)	<p>The PP needs to submit a database in structured tabulated form clearly mentioning the nomenclature of the section line, latitude and longitude of both the extents of section line, chainages and respective levels (RL, AMSL) of all the points taken on that section line. That means with the help of this database profile of ground at that section line can be drawn with the help of suitable CAD software.</p>	<p>A database is structured tabulated from clearly mentioning the nomenclature of the section line, latitude and longitude of both the extents of section line, Chainage and respective level RL of all the points taken on that section line with the help of this database profile of ground at that section line can be drawn with the help of CAD software. Enclosed by PP (Section wise CSV)</p>
11)	<p>Thus with the help of existing ground profile and proposed extents of excavation considering the stipulations of lateral extents of sustainable sand mining guidelines, as mentioned above, The PP shall estimate the proposed quantum of excavation in tonnages with the help of Specific Gravity verified by the State DMG between every two consecutive sections. Such estimation shall be furnished by the PP in tabular form which includes the nomenclature of section lines, area proposed for excavation, distance between two consecutive section lines, volume, specific gravity, tonnage of the mineral, maximum depth extent from existing ground profile. Respective plans shall also be submitted clearly marking the area to be excavated. The same needs to be verified by the State Mines and Geology</p>	<p>Estimation of Proposed Quantum of excavation in Tonne with the help of specific gravity verified by State Department of Mines & Geology between every two consecutive sections done with the help of existing ground profile and proposed extents of excavation considering the stipulations of lateral extents & Sustainable Sand Mining Guidelines given at</p> <p>Estimation of quantity furnishable in tabular form and includes the nomenclature of section lines, Volume, Specific gravity, tonnage of the mineral, Maximum depth extent from existing ground profile, Plans showing the</p>

	Department, Govt. of Rajasthan. In addition to this a composite plan mentioning the above proposed excavation zones for the entire mine lease area also needs to be submitted. Thus PP needs to submit a plan clearly showing the area to be put in under excavation and no excavation zones. Respective KML files of such lateral extents of excavation and no excavation zone within ML shall also be submitted by the PP.	area to be excavated is given in Plate No-5 in Replenishment Report.
12)	PP needs to submit a plan clearly mentioning the width of river, lease boundaries, area left under safety zones as prescribed as per Sustainable Sand Mining Management Guidelines, 2016, as per statutory requirements under Rajasthan Minor Mineral Concession Rules and other competent authority.	A plan clearly showing the width of river lease boundary area left under safety zone as prescribed as per Sustainable Sand Mining Management Guidelines 2016.
13)	It was found that the plans and sections were not depicting the dates (period) of survey further in order to ensure the ground survey PP should submit the dates (period) of survey, the model no & details of the instrument used for such survey, field recordings and observations along with name, signatures and contact details of the Surveyor explicitly be mentioned and recorded in the field book as well as in Plan & Sections.	Plan & Sections the dates of Survey. A field Book showing the date (period) of Survey, The model Number & detail of the instruments used. Field recordings and observations along with name, Signature and contacts details of the Surveyor mentioned and recorded in the field book is enclosed by PP.
14)	In addition to this soft copy (Excel or CSV file, DWG file) of all such survey recordings should also be submitted in proper order & sequence in order to cross check & verification samples checks of sections.	PP has submitted that CD of the Soft Copy of excel or CSV file, DWG files of all Survey recordings area in proper order & sequence will be submitted during presentation.
15)	The Committee deliberated the issues w.r.t. erection of pillars and	Project Proponent erected the pillars with the following

<p>accordingly suggested that the PP needs to erect the pillars with the following specifications and submit the details (in table form) of the same along with photographs. The specifications inter-alia are as (a) the distance between two adjacent pillars shall not be more than 100 meters; (b) the pillars shall be of square pyramid frustum shaped above the surface and cuboid shaped below the surface; (c) each pillar shall be of reinforced cement concrete; (d) the pillars shall have a base of 0.30m X 0.30m and height of 1.30m of which 0.70m shall be above ground level and 0.60m below the ground; (e) all the pillars shall be painted in yellow colour and the top ten cm in red colour by enamel paint and shall be grouted with cement concrete; (f) on all the pillars, distance and bearing to the forward and backward pillars and latitude and longitude shall be marked; (g) each pillar shall have serial number in a clockwise direction and the number shall be engraved on the pillars; (h) the number of pillar shall be the number of the individual pillar upon the total number of pillars in the lease; and (i) the tip of all pillars shall be a square of 15 cm on which a permanent circle of 10 cm diameter shall be drawn by paint or engraved and the actual boundary point shall be intersection of two diameters drawn at 90 degrees.</p>	<p>specifications:</p> <p>x. The distance between two adjoining pillars is not more than 100 meters.</p> <p>xi. The pillars are of square pyramid frustum shaped above the surface & cuboid shaped below the surface.</p> <p>xii. Each Pillars are of Reinforced cement concrete.</p> <p>xiii. Each pillars having base of 0.3mtrs x0.3mtrs and height of 1.30mtrs of which 0.7mtrs are above ground & 0.6mtrs below ground.</p> <p>xiv. All Pillars are painted in yellow colour and top 10cm in red by enamel paint and grouted with cement concrete.</p> <p>xv. Distance backward & forward bearing with latitude & longitude marked on the pillar.</p> <p>xvi. Each Pillar are numbered in clockwise direction and number engraved on the pillar.</p> <p>xvii. The Number of pillars is the number of individual pillars upon the total number of pillars in the lease.</p> <p>xviii. The tip of the pillar is square of 15 cm on which a permanent Circle of 10cm diameter drawn.</p> <p>(PP has submitted that Pillar photographs will be submitted during the</p>
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		presentation)
16)	PP shall submit the compliances as per the Ministry's Office Memorandum No.350/2017-IA.III(Pt.), dated 30.05.2018 by an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. w.r.t. judgment of Hon'ble Supreme Court dated the 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	PP has submitted the affidavit vide No. AW 454298 dated 26.02.2020.

4. The EAC deliberated on the submissions made by the project proponent and presentation made by the consultant in its meeting held during 22-24 June, 2020 and advised the project proponent to submit the following information, as sought for the proposals deliberated during the 5th - 6th May, 2020, for further consideration:

- i. In the replenishment study report details such as area under 7.5 meters statutory barrier, area under $\frac{1}{4}$ width of the river, area under $\frac{3}{4}$ width of the river for both lease area and area demarcated by DMG needs to be mentioned. In addition to these details of the reserve available and block therein needs to be provided along with plan and section for area demarcated by DMG. In the study report the safe extractable volume and tonnage needs to be defined after the deducting the block reserves. The slice plan for the mining in the safe extractable zone needs to be provided in the report. The field book for pre & post monsoon needs to be provided as same was not included in the presentation.
- ii. The details of the area to be utilized & not to be utilized for mining, as approved mining plan at the end of 5 years needs to be provided. Whether area demarcated by DMG comes under the utilized zone or un-utilized zone. In addition to this, area required for mining in the next 5 years needs to be provided with proper justification. The details of any prohibited area within the LOI area or demarcated area needs to be provided.
- iii. Mining is proposed in the small area and still large area is left how PP will ensure to curb illegal mining in the demarcated area and rest of the area falling in the lease (provision of Enforcement

and Monitoring Guidelines for Sand Mining ,2020 shall be referred for the same). In addition to this budget for installation surveillance equipment like CCTV, security guards weigh bridge etc., needs to be provided. The mining intensity of the original proposal considering larger area and the current proposal shall be compared and explained, as there is significant difference in mining intensity per Ha area.

- iv. PP needs to submit the compliance of ToR points wherein certificate is required for involvement of no forest land, distance from the protected area, authenticated list of schedule-1 species, conservation plan for schedule-1 species and proof of its submission to Chief Wildlife Warden if not already submitted. PP shall ensure that all these documents along with Annexure to EIA Report and other documents submitted to the ministry should be uploaded online on PARIEVSH Portal for public viewing.
- v. PP needs to submit a letter from the State Government that there is no violation of Common Cause Judgment dated 2.08.2017 in respect of this mining proposal and there is no production before the SC Order dated 25.11.2013 & after SC Order dated 16.11.2017. An undertaking in this may also be submitted.
- vi. The PP needs to submit time-bound, activity-wise action plan for EMP, Occupational Health, Planation, and CER along with the budgetary provision. In addition to details of Environmental Management Cell to be established for implementation of EMP needs to be submitted along with details of manpower and cost.
- vii. PP needs to ascertain the impact of transportation and details of transportation route viz. (length of the road, type of road, passing through the village or habitation) and mitigative measures to be taken for abatement of pollution due to transportation. The budget for the same needs to be provided.
- viii. In case there any proposal for utilization of land outside the mining lease for transportation with a mutual agreement with villagers then details of the same needs to be provided along with proposed compensation details.
- ix. PP needs to re-estimate the requirement of water for plantation, dust suppression and domestic use. The source of water needs to be mentioned. The cost of water tanker etc. needs to be mentioned in EMP.
- x. PP needs to confirm that is there any other homogeneous mining lease within 500 meters of this lease and forming cluster. If, yes details of the same needs to be provided.

- xi. It has observed that PP has changed the consultant a letter in this regard needs to be submitted in pursuant to Ministry's O.M. No. J-11013/41/2006-IA. II(I) dated 17.03.2010.
 - xii. PP has provided details of many court cases which are on various issues. Therefore, PP needs to provide status of the case wherein the case is pertaining to issue of grant of EC to present proposal, grant of LoI, illegal mining by PP etc. The Complete details and status of the same needs to be provided.
5. Therefore, **the proposal is deferred** for above information.

Review on the staus of the Sand Mining Proposals received from the State of Rajasthan

1. *The committee also reviewed the staus of the Sand Mining Proposals received from the State of Rajasthan. The Committee is of the view that the Hon'ble Supreme Court in its order dated 6.12.2019 asked for completing of the application and directed the Ministry to pass appropriate order, to expedite the process, a Special Meeting was also conducted on 12.06.2020 wherein two proposals from State of Rajasthan was recommended. The representative of State Government of Rajasthan in the previous meeting brought to the notice of the Committee that there is a scarcity of the mineral in the State. The Committee therefore desired to know the status of the remaining proposals.*

2. *The Member Secretary informed the Committee the State Government in its letter dated 3.02.2020 mentioned that reports of 16 proposals have been submitted to the Ministry. Information for the remaining proposal is yet to be submitted by the State Government and Project Proponent. In order to facilitate the information uploading the Ministry also re-listed the projects but as the information was not submitted for more than 3 months the proposals were auto delisted from the PARIVESH Portal. Till dated Ministry did not receive any request from Project Proponent /State Government for re-listing of these proposals.*

3. *The Committee is of the opinion that the Ministry may write to State Government and Project Proponent, to submit the requisite information as early as possible, so that appraisal of the projects can be completed.*

2.19 Guda Clay mine of M/s Harish Clay with enhancement of production capacity from 60,000 TPA to 2,50,000TPA (ROM) in MLA of 284.20 ha, located at village-Guda, Tehsil Kolayat, District Bikaner, Rajasthan. [Proposal No: IA/RJ/MIN/125957/2014, File No: J-11015/163/2014-IA.II(M)]. - Amendment in EC.

1. The proposal of M/s Harish Clay is for Amendment w.r.t. Condition No 22 in the Environmental Clearance granted vide Letter No. J-11015/163/2014-IA.II(M) dated 17th July, 2018 for Guda Clay mine of M/s Harish Clay with enhancement of production capacity from 60,000 TPA to 2,50,000TPA (ROM) in MLA of 284.20 ha, located at

village-Guda, Tehsil Kolayat, District Bikaner, Rajasthan.

2. **EC Details and Amendment Sought:** The environmental clearance was initially granted to M/s Harish Clay vide letter dated 17.07.2018 with the following condition no. 22:

*22) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. **The maximum height of the dumps shall not exceed 8m** and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. **The entire excavated area shall be backfilled and afforested.** Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.”*

Earlier Proposal: PP vide proposal No. **IA/RJ/MIN/23186/2014** dated **25.08.2018** had applied for Amendment in condition no. 22 as follows:

1. Change in dump height from 8 m to 60 m.
2. In line with point no. 7 of EC, Change is sought in point 22 from “the entire excavated area shall be backfilled and afforested”, to “**at the conceptual stage, out of 271 Ha of excavated pit, 100 ha will be converted in to rain water collection pond and remaining 171 ha will be back filled and ecologically restored by plantation which is similar to the conceptual planning given in the EMP report and approved Mining Plan.**”

3. **The proposal was placed in the 36thEAC meeting held during September 28-29, 2018.** The PP submitted that as per approved mining plan and the Form-2 submitted to the Ministry it was mentioned that existing dump height is 38 meters which will reach approximately 60 meters. It would not be economical or feasible to maintain a height of 8 m as it will require a significant part of the lease area which will also cover the major part of mineralized zone and will degrade the surrounding environment to a greater extent. Hence the dump height should be permitted to 60 meter instead of 8 meter. The Committee observed that in the approved mining plan in the text part, there was no mention of dump height. However, in the Surface Plan the existing dump height is more than 8 meters. The KML was also analyzed on the Google and it has found that dump height is around 11 meters. The Committee was thus of the view that in order to consider the proposal of the PP for enhancement in the dump height the PP should carry out slope

stability study of the dumps from a reputed institute which clearly brings out the feasibility of increasing of dump height to 60 meters, safety issues, environmental issues, stabilization of dumps, mitigation measures and monitoring of the dumps. In addition to this based on the study PP should modify the mining plan for increasing the dump height. The second amendment required by PP is regarding area of the backfilling. It has observed that as per mining plan Committee was of the view that PP is proposing for the increase in dump height and at the same time backfilling is proposed. Thus, it is suggested that PP should optimize its planning so that early backfilling can be started. This will serve the two purpose 1st PP need not require to increase the dump height to 60 meters and secondly re-handling of the material can be avoided. out of 271 Ha total 171 Ha area is proposed under backfilling. The Committee was of the view that PP is proposing for the increase in dump height and at the same time backfilling is proposed. Thus, it is suggested that PP should optimize its planning so that early backfilling can be started. This will serve the two purpose 1st PP need not require to increase the dump height to 60 meters and secondly re-handling of the material can be avoided.

4. The Committee deliberated the proposal based on the information submitted by the PP. The Committee **deferred** the proposal and is of the view that the proposal may be considered after submission of the following requisite information:

- (i) *PP should get the study done from Central Mine Planning & Design Institute Limited (CMPDI) with respect to increase in dump height to 60 meters. The study report inter-alia addresses the issues pertaining to slope stability of the dumps, feasibility of increasing of dump height to 60 meters, safety issues, environmental issues, stabilization of dumps, mitigation measures and monitoring of the dumps. Based on the outcome of the study PP needs to modify the mining plan for the safe dump height as recommended by Central Mine Planning & Design Institute Limited (CMPDI).*
- (ii) *The PP should submit the time line for the backfilling (year-wise quantity to be backfilled, supported by plan and section of backfilling) considering the fact that early backfilling will not only reduce the dump height but also reduce the re-handling of the material.*

5. Present Application: PP then applied vide **Proposal No. IA/RJ/MIN/125957/2019 dated 21.12.2019** and vide its letter No. HC/2019-20 dated 19.12.2019 submitted the following:

1. The dump slope study report carried out by CMPDI.
2. The proposed timeline structure for backfilling (year wise quantity to be backfilled) supporting with plan and section for ensuing remaining plan period (i.e. Yr. 22-23).

6. The proposal was placed in the 13th EAC Meeting held during

January 30-31, 2020. The PP did not attend the meeting and therefore Committee **deferred** the proposal and *was of the view that proposal may be placed in EAC meeting after receiving request from PP and in case PP did not reply within 15 days after uploading on the minutes the proposal may be de-listed as already sufficient time was given to submit requisite information.*

7. PP vide its Letter No. HC/2020-21/ dated 08.06.2020 has resubmitted the above stated documents as follows:

- i. In compliance of direction given by the Environment Appraisal Committee (EAC), the dump slope study carried out by CMPDI with respect to increase in dump height to 60 meters is submitted **as Annexue-1 to the letter.**
- ii. The proposed timeline structure for backfilling (year wise quantity to be backfilled) supporting with plan and section for ensuing remaining plan period (i.e. Yr. 22-23) is submitted **as Annexure No. 2 to the letter.**

8. After detailed deliberations, the Committee is of the view the study for slope study has already been conducted by CMPDI but to execute the same the PP is required to submit the modified mining plan. The Committee appreciate the effort of PP made towards backfilling and is of the view that while preparing the modified mining plan it should be kept in the mind the to the extent possible the backfilling is to be done and only in case where it is not feasible the dumping of the same in dump yard to be done. Therefore, PP shall submit a draft mining plan in the similar lines, so that, height of the dump, area of dump, area to be backfilled, time line for backfilling etc. may be appraised before consideration of amendment in EC. **Therefore, the proposal is deferred.**

2.20 Proposed Mining project of M/s Larsen & Toubro Limited at Sijimali Bauxite Mine with a Production capacity of 6.0 MTPA and ML area 1560.40 ha, located at Villages- Tijamali, Talambapadar, Nakurandi, Upar Ambapadar, Chulabari, Taramundi, Ambajhola, Mahajal, Tadadai and Salabali under (Thuamul-Rampur Tehsil of Kalahandi district) Villages-Malipadara, Dumerpadar Kutamal, Pelanakona, Katibhata, Bundel, Sagabari and Aliguna (under Kashipur Tehsil of Rayagada district), Odisha [Proposal No. IA/OR/MIN/146812/2020; File No. J-11015/28/2020-IA.II(M); Consultant: M/s VIMTA Labs Limited]- Consideration of ToR.

1. The proposal of M/s Larsen & Toubro Limited is for Sijimali Bauxite Mine with a Production capacity of 6.0 MTPA and ML area 1560.40 ha, located at Villages- Tijamali, Talambapadar, Nakurandi, Upar Ambapadar, Chulabari, Taramundi, Ambajhola, Mahajal, Tadadai and Salabali (under Thuamul-Rampur Tehsil of Kalahandi district) Villages-Malipadara, Dumerpadar Kutamal, Pelanakona, Katibhata, Bundel, Sagabari and Aliguna (under Kashipur Tehsil of Rayagada district), Odisha. The lease area falls under the Survey of India toposheet nos. E44F2 and E44F3 and bounded by latitude of

19° 28' 42.42" to 19° 32' 02.35" N and longitude of 83° 06' 04.66" to 83° 09' 49.80" E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha.

3. PP has submitted that the proposed mining lease area is 1560.40 ha, about 46.37% is forest land (village/revenue forest - 26.50 ha, DLC forest – 620.14 ha and sabik forest – 76.91 ha). The state government granted the prospecting licenses to L&T for Kutrumali and Sijimali bauxite deposits. After successfully completing the prospecting operations, L&T applied for mining leases. State government has recommended the applications to central government for their approval for grant of mining leases in accordance with law. It is in the advance stage of approval at Central Government. The mining lease shall be granted for Bauxite mining for a period of 50 years. PP has submitted a letter from Department of Steel and Mines, Government of Odisha to the Additional Secretary, Ministry of Mines, GoI vide No. 4567/SM, Bhubaneswar dated 13.05.2015 recommending the application of mining lease for their approval for grant of mining leases in accordance with law.

4. PP has submitted that the proposed bauxite mining project has been earlier awarded with Terms of Reference (TOR) vide F No.: J-11015/100/2016-IA.II(M) dated 15th March 2016. However, due to change in land classification, the original proposal was withdrawn (EAC minutes dated April 23-24, 2019) and this application is being submitted for grant of fresh TOR.

5. PP has submitted that out of proposed mining lease area is 1560.40 ha, about 46.37% is forest land (village/revenue forest - 26.50 ha, DLC forest – 620.14 ha and sabik forest – 76.91 ha). PP has further stated that it has submitted application seeking prior approval of Central Government under section 2 of the Forest (Conservation) Act, 1980 for diversion of forest area. The proposal number is "FP/OR/MIN/22513/2016" and is under process. Copy of the proposal (Form-A) and the acknowledgment are enclosed by PP. The proposed mining site at Sijimali plateau is principally a stony waste land. There are 14 reserved forests and 8 proposed reserved forests present in the radius of 10 km. There are no ecological sensitive areas (wild life sanctuaries, national parks, biosphere reserves, protected forest etc.) in the study area. Karlapat wildlife sanctuary is located at about 12.9 km in North direction.

6. PP has submitted that average total excavation is estimated to be 9.06 Million Tonnes per Year. This includes production of 6 Million Tonnes of Bauxite and generation of 3.06 Million Tonnes of Overburden / Waste. This value may vary each year depending on the stripping ratio in that year. Total excavation during the life of mine is estimated to be around 354 Million Tonnes as per the approved mining plan.

PP has also stated that Sijimali bauxite deposit is having about 220.39 million tonnes of mineable reserves as per the mining plan approved by Indian

Bureau of Mines (IBM). The rated capacity of the project is 6.0 MTPA. Life of the mine is about 39 years based on rated capacity. However, the mine will be designed to last for the entire lease period of 50 years considering curtailment of production driven by market demands.

Method of Mining: PP has submitted that No raw material will be required for production of bauxite. The proposed bauxite mine shall be developed by opencast mechanized mining method. The main operation shall include removal and stacking of top soil by ripper/excavator cum loaders, exposing the bauxite zone, proper levelling by dozer and use of surface miners. Only in the places where strata is very hard to rip, controlled blasting would be resorted to. Bauxite will be then sorted out and reduced to size by crushers. The remaining rejects will be used for backfilling. The total mineable reserves of Sijimali bauxite deposit is about 220.39 million tonnes. For operational management, the mine has been sub-divided into 4 blocks with mineable reserves of 76.97 million tonnes, 68.57 million tonnes 58.77 million tonnes and 16.08 million tonnes respectively. It is proposed to undertake mining operation initially in the Block-I having mineable reserves of about 76.97 million tonnes and mining in this block shall continue for approximately 15 years (including initial period of limited production). The waste generated in the course of pre-mining development and subsequent mining operation will consist of top soil and overburden comprising mainly laterite and low grade unusable bauxite. The average overburden/mineral reject to ore ratio has been estimated at about 0.51:1, which will give rise to about 3 MT of overburden/mineral reject per year for production of 6 MTPA of bauxite.

Comment of PD: Approved Mining Plan details cannot be fetched due to technical error in accessing the link for uploaded approved mine plan on PARIVESH.

7. PP has submitted that as a part of eco restoration, it is decided to carry out afforestation in the following manner:
 - Initially afforestation will be done along the safety barrier against the lease/geological boundary for Block-I. At later stages, when the mining activity will progress to the other blocks, afforestation along the safety barriers will be accordingly done. Restoration of mined out land in five year period have been shown in **Annexure-V to the EIA report**.
 - Backfilling work will start during the third year of mining operation. After backfilling of voids, the area will be sprayed with top soil for enabling plantation. It is envisaged that, plantation on the reclaimed areas will start during the second five year period of mining operation.
 - It is also proposed to create a green belt on the periphery of the important installations like administrative building, approach roads to the mine as well as road to the alumina plant.
 - Overburden/mineral reject dumping at outside dumps will continue beyond the first five years. These dumps will be re-handled at a later

stage when sufficient space will be created in the mined out areas. Hence, temporary stabilisation and protection measures like creation of garland drains etc. will be taken, if needed, for these overburden/mineral reject dumps. If any technological advancement is done in future for extraction of alumina or any other metal from the mineral rejects, then the proponent will approach the relevant Government / statutory authority with new proposal.

- At the end of the lease period, some area will be void with RL 1150 to 1200. Part of this area may be used as water reservoir for supply of water to the local villages and also for pisciculture. The reclaimed area may be used for cultivation/afforestation.

PP has earmarked an amount of Rs. 5 crores towards Greenbelt development / plantation.

8. PP has submitted that it is proposed to tap water from Naragul Nala at a distance of 4 km from Sijimali hill top. Total requirement of water is 725 m³ per day. This includes 1) Haul road dust suppression including maintenance of top soil (460 m³ per day), 2) Washing and cleaning of earthmoving equipment (service water system) (100 m³ per day), 3) Drinking system (40 m³ per day), 4) High pressure fogging system at crusher (30 m³ per day), 5) Dry fog dust suppression system at bin and conveyors (20 m³ per day), 6) Vegetation and Horticulture (40 m³ per day), 7) Afforestation (70 m³ per day) and 8) Miscellaneous (25 m³ per day). 60 m³ per day water will be Recycled water retrieved from water treatment plant at workshop. To enable drawal of water, a pick-up weir will be constructed on the Naragul Nala. An intake well will be constructed on the Nala bed at upstream side of the pick-up weir. On the basis of sixteen hours working per day, two pumps (one working and one standby), each of 50 cu m/hour capacity at approximately 750 mwc head will be provided in the intake well to pump water from the intake well to a ground water reservoir in the mines area. There will be no utilisation of groundwater resource. The mining will not puncture the ground water table. A sewerage system of septic tanks followed by soak pits shall be provided for the project area.

9. PP has reported that Odisha Right to Fair Compensation and Transparency in Land Acquisition, Resettlement & Rehabilitation Act, 2013 (RFCT-LARR, 2013) and Odisha State rules, (along with its subsequent amendments) will be followed with respect to R&R.

10. PP has submitted that In addition to the Project Cost, it is proposed to spend about Rs. 40 Crore towards environmental protection measures. This will include 1) Air quality monitoring and management – Rs. 20 crores, 2) Water quality monitoring and management – Rs. 5 crores, 3) Greenbelt development / plantation – Rs. 10 crores and 4) Occupational health monitoring – Rs. 10 crores.

11. PP has reported that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

12. PP has submitted that the estimated project cost is about Rs. 676 Crores. As per preliminary estimate, the total direct employment generation from the proposed mining project will be about 240 personnel.

13. The committee observed that the LoI has not yet issued to the project proponent. Therefore, the committee informed that the appraisal of proposal without valid LoI is immature and advised to make application with valid LoI and all other pre-requisite documents like application for forest clearance; Mining plan, etc. Therefore, the committee recommended for **returning the proposal in present form**. The Committee is of the view that PP may apply afresh after obtaining mining lease/LOI along with following information:

- i. Valid Mining Lease/LoI for all the minerals in the mining lease.
- ii. Is there is an occurrence of laterite in the mining lease. Laterite is minor mineral since 10.02.2015 and PP need to confirm why it cannot be used.
- iii. Water requirement for the project is extremely high with 725 KLD per day. The reason for the same needs to be provided.
- iv. Location, number, type and capacity of crusher need to be provided. Location of workshop needs to provide. Transportation route and its possible impact need to be provided.
- v. Forest and non-forest area needs to be shown on map. Copy of Statge-1 FC if any or application made for obtaining forest clearance needs to be submitted.

2.21 Mining in 'Wah Pyn kon Limestone Mine' with a production capacity of 49,275 TPA(RoM) of Line Stone by M/s Cement Manufacturing Company Limited, located at Village- Lumshnong, Tehsil : Khliehriat, District : East Jaintia Hills, State : Meghalaya (ML area 13.58 Ha) [Proposal No. IA/ML/MIN/150726/2020; File No. J-11015/193/2015-IA.II (M)] - Amendment in EC.

1. The proposal of M/s Cement Manufacturing Company Limited is for Amendment w.r.t. *Specific Condition A (ii) (Requirement of NBWL Clearance)* in the Environmental Clearance granted vide Letter No. J-11015/193/2015-IA.II(M) dated 3rd March, 2016 for Mining in 'Wah Pyn kon Limestone Mine' with a production capacity of 49,275 TPA(RoM) of Line Stone by M/s Cement Manufacturing Company Limited, located at Village-Lumshnong, Tehsil : Khliehriat, District : East Jaintia Hills, State : Meghalaya (ML area 13.58 Ha).

2. **EC Details and Amendment Sought:** The environmental clearance was initially granted to M/s Cement Manufacturing Company Limited vide letter dated 03.03.2016 with the following Specific condition no. A (ii):

A (ii) "This Environmental Clearance is subject to obtaining requisite

NBWL Clearance from the Standing Committee of National Board for Wildlife as applicable for this Mining Project.”

3. **PP vide Proposal No. IA/ML/MIN/150726/2020 dated 21st May 2020** has applied for amendment in the above mentioned *Specificcondition A (ii) w.r.t. NBWL Clearance* and in its **letter No. SCL/13.58ML/EAC/0604/2020 dated 06.04.2020** has mentioned that, *“The condition for obtaining clearance from NBWL was incorporated because the Narpuh Wildlife Sanctuary was about 3.20 km from the boundary of their Mine Lease Area and the Eco Sensitive Zone (ESZ) for the above Sanctuary was not notified. Accordingly, PP had submitted an online application for obtaining NBWL clearance vide proposal no. FP/ML/MIN/508/2016 dated 16.01.2016 (Copy of Acknowledgement of NBWL online enclosed as **Annexure-2 to the letter**). The application was under consideration but in the meantime, the ESZ of Narpuh Wildlife Sanctuary was notified on 06-09-2017 vide S.O. No. 2942(E) (Copy of ESZ of Narpuh Wildlife Sanctuary Notification enclosed as **Annexure-3 to the letter**) and their said mining lease was outside the boundary of the ESZ and hence the application was not pursued.”*

4. PP has stated that as per the **OM issued vide F.No. 22-43 /2018-1A.III] dated 08.08.2019** (Copy of O.M. enclosed as **Annexure -3 to the letter**) under serial no 4 (ii) states that once the ESZ of Wildlife Sanctuary is notified then the prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) may not be applicable if project is outside ESZ.

PP has further enclosed a **letter no. MPG.16/50/CMCL/Vol III/1/512 dated 22nd August, 2019 issued from the Office of Principal Chief Conservator of Forest & HoFF, Meghalaya (Annexure- 4 to the letter)** certifying that their mining lease (13.58 ha) boundary is 1.8 km away from ESZ (Eco-Sensitive Zone) of Narpuh Wildlife Sanctuary.

5. PP mentions that the EC general condition B(xiv) states, that The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Shillong.

In view of the above, PP has reported that it has prepared and got approved Conservation Plan and Supplementary Plan along with action plan with budget from the Principal Chief Conservator of Forests & HoFF, Department of Forests & Environment, Govt. of Meghalaya and have already deposited the requisite amounts. **(Copies enclosed as Annexure-5 to the letter)**

Thus, in the light of above, PP has requested for issue of amendment of Environmental Clearance.

6. **EDS was raised by the Ministry on 27.04.2020** to submit the

following:

- i. *Past production details since 1993-94 duly authenticated by DMG in the format given at Annexure-III of any agenda of NCM;*
- ii. *Efforts made by the PP to obtain the NBWL clearance before finalization of ESZ along with supporting documents.*

In response to the same, **PP vide its letter No. SCL/13.58ML/EAC/0203/2020/2 dated 14.05.2020** has submitted the following details:

Sl. No.	EDS dated 27.04.2020	Reply
1.	Past production details since 1993-94 duly authenticated by DMG in the format given at Annexure-III of any agenda of NCM	Past production details Past Production details for the period from 2016-17 to 2019-20 (till Nov,2019) duly authenticated by the Department of Mines and Geology, Meghalaya State vide letter no DMO-J/R/72/19-20/457 Dated 02.01.2020 is attached in the format given at Annexure - III as per agenda of NCM in Enclosure-I to the letter along with relevant documents.
2.	Efforts made by the PP to obtain the NBWL clearance before finalisation of ESZ along with supporting documents	Copy of NBWL application along with acknowledgement as Enclosure-II to the letter.

6. After detailed deliberation, the committee recommended for amendment in Environmental Clearance dated 03.03.2016 for deletion of the Specific condition no. A (ii) in respect of requirement of clearance from NBWL. All other terms and conditions of EC dated 03.03.2016 shall remain unchanged.

2.22 Seethainagar Limestone Mine located at Villages: Alambadi, Mallapuram, and Karikkali, Tehsil: Veda sandur, District: Dindigul, State: Tamil Nadu in favor of M/s. Chettinad Cement Corporation Private Limited- Permission for removal/disposal of developmental Waste as rough stone @ 2.12 million TPA in G.O.No.81 (ML Area 251.59 ha) in existing EC under Para 7(ii) of EIA notification, 2006 without change in total excavation.

[J-11015/518/2009-IA-II(M); IA/TN/MIN/155004/2020]

1. The proposal of M/s. Chettinad Cement Corporation Private Limited is for removal/disposal of developmental Waste as rough stone @ 2.12 million

TPA in G.O.No.81 (ML Area 251.59 ha) in existing EC under Para 7(ii) of EIA notification, 2006 without change in total excavation granted for Seethainagar Limestone Mine located at Villages: Alambadi, Mallapuram, and Karikkali, Tehsil: Veda sandur, District: Dindigul, State: Tamil Nadu in favor of M/s. Chettinad Cement Corporation Private Limited. The Project Proponent submitted that mining lease area falls under Survey of India Topo-Sheet No. 58 F/13, 58F/14, 58 J/1, 58 J/2 and between Latitude: N 10°42'2.80" to N 10°43'25.1" Longitude: E 78°03'8.0" to E 78°04'31.1". The mine lease area falls in Zone –II [as per IS 1893 (Part-I): 2002].

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under S. No. 1, Project or Activity 1(a) – 3 for “Mining of Mineral” as the Mining lease area is more than 100 Ha.

3. Environmental Clearance for Seethainagar Limestone Mine was issued to M/s. Chettinad Cement Corporation Ltd. by MoEFCC vide letter No. J-11011/518/2009-IA.II (I) dated 02.08.2010 for Expansion of Cement Plant (Clinker 1.22 MTPA to 2.80 MTPA, Cement 2.00 MTPA to 4.50 MTPA) along with Captive Power Plant (18 MW to 48 MW) at Village Karikkali and Dholipatti and Limestone Mine (Seethainagar Mines, 379 ha and 2.00 MTPA to 4.50 MTPA) at village Villages: Alambadi, Mallapuram, and Karikkali, Tehsil: Veda sandur, District: Dindigul, State: Tamil Nadu.

PP has reported that it had earlier applied for amendment in said EC vide proposal No IA/TN/MIN/149518/2020 on 18.03.2020. Subsequently, Essential Details were sought by MoEFCC on 01.04.2020, which PP replied on 24.04.2020. Again an EDS was raised by MoEFCC on 27.04.2020 stating that **“On examination of material balance submitted, it is understood that the instant proposals is for production of the minor mineral from the waste dumps. It constitutes as dump mining and treated as expansion category. Therefore, you are requested to make an application for expansion in pursuant to the OM Z-11013/49/2018-IA. II(M) dated 18.06.2018, and as per the provisions of the EIA 2006 Notification and subsequent amendments.”**

PP vide **Proposal No. IA/TN/MIN/155004/2020 dated 31.05.2020** has submitted a fresh application for Permission for removal/disposal of developmental Waste as rough stone @ 2.12 million TPA in G.O.No.81 (ML Area 251.59 ha) in existing EC under Para 7(ii) of EIA notification, 2006 without change in total excavation for Seethainagar Limestone Mine located at Villages: Alambadi, Mallapuram, and Karikkali, Tehsil: Veda sandur, District: Dindigul, State: Tamil Nadu in favor of M/s. Chettinad Cement Corporation Private Limited.

4. PP has submitted that Initially Mining lease was granted by Government of Madras for period of 20 years vide letter no. G.O (Ms) No. 1307 ILC dated 08.03.1965 which is valid upto 06.09.1985. Lease was first renewed for a period of 6 years vide letter dated 17.07.1985 (Valid upto 06.09.1991). Lease was secondly renewed for a period of 10 years vide letter dated 25.11.1991 (Valid upto 06.09.2001). Further lease was renewed for a

period of 20 years vide letter no. G.O. (Ms) No: 81 dated 13.08.2003 for a period of 20 years which is valid upto 06.09.2021. Validity of mining lease deemed to be extended up to year 2030 as per section 8A of amended MMDR Act, 2015. PP has submitted that Permission has been obtained from State Govt. regarding removal / disposal of developmental Waste (20.13 million tonnes) as rough stone at an average of 2.12 million TPA from approved 8 dumps (38.05 ha) vide G.O (Ms) No. 158 dated 24.12.2018 and PP has executed a supplementary Mining lease deed from Existing Mining Lease on 24.09.2019 for the period of 10 years from 24.09.2019 to 23.09.2029.

5. PP submitted that Mining Plan has been approved by IBM vide letter no TN/DGL/MP/LST/2048.MDS dated 17.07.2018.

6. The Proponent submitted that it is open-cast mining. Excavation during mining operation will be carried out. Hence, voids will be formed. As per conceptual land use total excavated area will be 99.29 ha which 54.35 ha area will be converted into water reservoir, about 31.91 ha of land will be used for waste dumps, about 6.89 ha land will be used for infrastructure including office, workshop etc and 3.85 ha will be covered under road & 95.1 ha area will be covered under greenbelt/plantation. Existing waste will be re-handled and rough stone from existing waste dump will be sent to stone crushers outside the lease area. Utilisation of waste dump as rough stone for the purpose of mineral conservation. Removal of these dumps mitigate the environmental problems associated with fresh mining of rough stone by elimination of Drilling & Blasting, etc.

Proposal is for removal/disposal of developmental Waste of 20135057 Metric tons (20.135 million tonnes) as rough stone at an average of 2.12 million TPA from approved 8 dumps (38.05 ha).

Sl. No.	Particulars	As per EC (MTPA)	Present Proposal (MTPA)
1.	Limestone	2.97	2.97
2.	Waste from Excavated area	3.98	1.88
3.	Waste from dump	0	2.10
4.	Total Excavation	6.95	6.95

7. PP submitted that Range of Water Table varies from 1110 to 120 m bgl during Pre-Monsoon Season and and 100 to 110 m bgl during Post- Monsoon season. There will be no ground water intersection. Total water requirement for this proposal is 84.5 KLD which will be sourced from rain water collected in existing mine pits. There is no impoundment, damming, culverting, realignment or other changes in the hydrology of watercourses or aquifers. However, rain water harvesting structures as per the guidelines of MOEFCC/ CGWA/ CGWB have been constructed for ground water recharging purpose. Domestic waste water 8.08 KLD will be generated which will be disposed in soak pit via septic tank.

8. PP has submitted that as per conceptual land use total excavated area

will be 99.29 ha out of which 95.1 ha area will be covered under greenbelt/plantation which is 37.72 % of Total Project Area. Total number of 158000 saplings will be planted. The funds allocated towards Green Belt/plantation is Rs. 5.0 Lakhs.

9. The PP submitted that No Forest land is involved. Total Mining Lease area is 251.59 ha, out of which, 35.30 ha is Private Land and 216.29 ha is Poramboke land. There is no Ecological and Environmental Sensitivity Zone Within 10 Km radius.

10. PP has reported there is no Schedule-I Species in the lease area.

11. PP submitted that Consent to Operate was issued vide Order No. 1808112396242 dated 14.08.2018 which was valid till 31.03.2020. PP has further submitted that Letter has been issued by TNPCB vide letter no TNPCB/P&D/2020 dated 01.04.2020 regarding extension of validity period of consent to operate for a period of three months till 30.06.2020.

12. PP has submitted the EC Compliance Report certified by RO, MoEF&CC, Chennai vide letter No. EP/12.1/2010-11/9/TN/1544 dated 28.09.2018.

13. PP has submitted that dust will be generated during loading/unloading of waste material. Adequate Dust control & suppression measures will be taken to keep emission within prescribed limit. Domestic waste water generated from mine office will be disposed of in soak pit via septic tank. There will no odour due to this proposal. Noise will be generated due to transportation of waste material from existing waste dump. Proper noise abatement measures such as Proper low noise generation equipment, development of greenbelt & plantation, regular maintenance of mining machinery will be adopted to keep noise level within the prescribed limit by CPCB.

14. The Project Proponent reported that details w.r.t. Public Hearing is not applicable.

15. PP has submitted that the fund allocated towards CER (Corporate Environment Responsibility) is Rs. 0.0052 Crores.

16. PP reported that there is no rehabilitation and resettlement proposed in the lease area.

17. The Project Proponent submitted that the funds allocated for Environment Management (Capital) is Rs. 0.20 Crores and Rs. 0.10 Crores (recurring per annum).

18. PP submitted that here is no litigation pending against the project and/or land in which the project is proposed to be set up.

19. PP has given undertaking in Form-2 that hereby gives undertaking that the data and information given in the application and enclosures are true to

be best of his knowledge and belief. And he is aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at their risk and cost. In addition to above, they hereby give undertaking that no activity/ construction/ expansion has since been taken up.

20. The Proponent submitted that total project cost will be Rs. 0.35 Crore. This is an existing Limestone Mine. Managerial staffs, supervisory staffs and workmen are already there for existing mine. Many of the workmen are from local area. There will be some additional requirement of manpower for the expansion project to fulfill both long-term and short-term needs. The short term requirement involves proposed additional crusher commissioning. The total manpower (33 person) engaged for mining activity will be used for transportation of rough stone from existing waste dump.

21. After detailed deliberations on the proposal, the committee is of the view that the proposed utilization of the waste is good from the environment perspective. However, the issues associated with the transportation of the waste material (rough stone) shall be predicted and mitigation plan shall be prepared accordingly including the assessment of road infrastructure. Further, the Committee is of the view that the total excavation may remain same but the previous EC was granted only for production of limestone. The instant proposal of production of 2.10 MTPA of Rough Stone from the waste dump, though considered as additional mineral, considering the advantage of the utilization of waste, the committee proposed for reconsideration after submission of the impact due to transportation, additional crushing facility and handling of the dump. **Therefore, the proposal is deferred.**

2.23 Sheopura-Kesarpura Limestone Mine of M/s Shree Cement Limited for mining of limestone with enhancement in production capacity from 1.5 MTPA Limestone to 2.0 MTPA Limestone and Interburden – 0.81 MTPA (Total Excavation -2.81 MTPA) and increase in limestone crushing capacity of 800 TPH Crusher from 2.0 MTPA to 4.0 MTPA Limestone without changing in granted mining lease area for Sheopura-Kesarpura Limestone Mine [ML No. 24/97 ® & ML Area – 856.80 ha] located at Village Sheopura & Kesarpura, Tehsil Masuda, District Ajmer, Rajasthan.

Proposal No. IA/RJ/MIN/152110/2020; File No. J-11015/102/2018-IA-II(M)] – Amendment in ToR.

1. The proposal of Shree Cement Limited is for amendment in TOR granted vide letter no. J-11015/102/2018-IA-II(M) dated 19th November, 2018 w.r.t. enhancement in production capacity from 1.5 MTPA Limestone to 2.0 MTPA Limestone and Interburden – 0.81 MTPA (Total Excavation -2.81 MTPA) and increase in limestone crushing capacity of 800 TPH Crusher from 2.0 MTPA to 4.0 MTPA Limestone without changing in granted mining lease area for Sheopura-Kesarpura Limestone Mine [ML No. 24/97 ® & ML Area – 856.80 ha] located at Village Sheopura & Kesarpura, Tehsil Masuda, District Ajmer, Rajasthan.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category “A”, as the Mining lease area is more than 100 Ha.

3. PP earlier had applied online vide **proposal no IA/RJ/MIN/75624/2018** for grant of ToR and submitted Form-1 & PFR. The proposal was considered by the **Expert Appraisal Committee, in its 36th meeting, held during 28-29 September 2018** wherein the Committee **recommended** the proposal for applying in EC portal with EIA/EMP Report with fresh baseline data as the data previously collected is more than 3 years old. The EIA/EMP Report should inter-alia include the standard conditions of TOR and other information as per observation of the Committee. The Ministry issued the letter vide No. J-11015/102/2018-IA-II(M) dated 19th November, 2018 citing recommendations of EAC.

The TOR was granted for Sheopura-Kesarpura Limestone Mine of M/s Shree Cement Limited for mining of limestone with reduction in limestone production capacity from 4.0 Million TPA to 1.5 Million TPA & Inter Burden 0.65 MTPA (Total excavation of 2.15 Million TPA) [existing EC granted with capacity of 4.0 Million TPA under EFA Notification, 1994] and existing operating crushers of 800 TPH, located near Village Sheopura & Kesarpura, Tehsil Masuda, District Ajmer, Rajasthan (ML Area 856.8 ha).

4. PP has now applied vide **Proposal No. IA/RJ/MIN/152110/2020 on 05.05.2020** seeking amendment in the above granted TOR w.r.t. enhancement in production capacity from 1.5 MTPA Limestone to 2.0 MTPA Limestone and Interburden – 0.81 MTPA (Total Excavation -2.81 MTPA) and increase in limestone crushing capacity of 800 TPH Crusher from 2.0 MTPA to 4.0 MTPA Limestone without changing in granted mining lease area for Sheopura-Kesarpura Limestone Mine [ML No. 24/97 ® & ML Area – 856.80 ha] located at Village Sheopura & Kesarpura, Tehsil Masuda, District Ajmer, Rajasthan.

PP in its letter No. SCL/TPR-Amend/SK.Mines/2020-21 dated 22.04.2020 has mentioned that,

“There are some changes in the approved mining plan and Modification in Approved Mining Plan along with Progressive Mine Closure Plan which was approved by IBM vide letter No. 984 (4)(3) (1801)/2019 -RCM/ AJM/ 1585 dated 07.10.2019 under rule 17(3) of MCR, 2016 and Rule 23 of MCDR, 2017. Accordingly application for amendment in TOR w.r.t. capacity of limestone production and crushing is being submitted.”

PP has submitted the following documents with the application:

1) Copy of approval of Modification in the approved Mining Plan issued by IBM vide letter No. 984 (4)(3) (1801)/2019 -RCM/ AJM/ 1585 dated 07.10.2019.

2) Copy of Revised Form-I

- 3) Revised Pre-Feasibility Report.
- 4) Affidavit in Company's letterhead dated 24.04.2020 stating that no expansion/modernization has been undertaken in violation of the provision of EIA Notification related to the proposed project and There is no litigation pending against the project and / or land in which the said mine is running and that for any such litigation whatsoever, the sole responsibility will be borne by the Project Proponent.
- 5) Affidavit in Company's letterhead dated 24.04.2020 stating that it has not exceeded for the grante dEC and Production capacity, Consent to Establish, Consent to Operate if any case, if it is found at any stage in the future, then it will comply with all the statutory requirement and judgment of Hon'ble Supreme court on dated the 2nd August 2017 in writ Petition (civil) No. 1 14 of 2014 in the matter of common cause versus Union of India & Ors before grant of ToR/EC. That the Environmental Clearance will not be operational till such time that the company complieswith all statutory requirement & judgment of Hon'ble Supreme court dated the 2nd August 2017 in writ Petition (civil) No. 114 of 2014in the matter of common cause versus Union of India & Ors as applicable.
- 6) PP vide its **letter No. SCL/TPR-Amend/SK.Mines/2020-21 dated 22.04.2020** has stated that they are unable to submit the Certified EC compliance. So herewith they have requested, to consider the Self Attested EC Compliance.
- 7) During the presentation before the committee, the PP submitted the details of existing EC capacity, Proposed capacity during the earlier ToR and revised capacity for amendment long with the justification as given below:

Existing Capacity	EC	Proposed Capacity in TOR	Revised Capacity for TOR Amendment	Justification for Amendment in TOR
EC was granted under EIA Notification 1994 for Expansion of Limestone production capacity from 2.0 to 4.0 Million TPA vide letter.no. J-11015/170/2004-IA.II (M) dated 31.03.2005		TOR issued for Limestone production of 1.5 Million TPA and Inter-burden 0.65 Million TPA. (Total excavation of 2.15 Million TPA) with existing operating crusher capacity of 800 TPH vide letter no. J-11015/102/2018-IA-II(M)dated 19.11.2018.	Limestone production 1.5 to 2.0 Million TPA and Inter-burden- 0.81 Million TPA {Total Excavation 2.81 Million TPA} and increase in Limestone Crushing Capacity From 2.0 Million TPA To 4.0 Million TPA (3.2 Million TPA Crushed	In compliance to the Hon'ble Supreme Court order-Common Cause- 04.08.2017, the application for revalidation of EC was applied within the grace window, it was envisaged the last four years production was less than 1.5Million TPA so it was

		Limestone & 0.8 Non Crushed Limestone-undersize) with existing Crusher of 800TPH	decided to go for TOR for 1.5 Million TPA. The Amendment desired is owing to the market scenario of FY 2019-20 which leads to the increase in demand of cement, as re-assessed to 2.0 Million TPA as per the existing operative capacity. With the same crushing capacity of 800 TPH-screening facility is proposed with additional operational hours (From 7.5 to 14 hours) to increase the output from 2.0 Million TPA to 4.0 Million TPA
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8. After detailed deliberations, the committee recommended for amendment in the earlier ToR for the revised production of Limestone production 1.5 to 2.0 Million TPA and Inter-burden- 0.81 Million TPA {Total Excavation 2.81 Million TPA} and increase in Limestone Crushing Capacity from 2.0 Million TPA To 4.0 Million TPA (3.2 Million TPA Crushed Limestone & 0.8 Non Crushed Limestone-undersize) with existing Crusher of 800TPH. All other terms and conditions precibed in the ToR letter dated 19th November, 2018 shall remain unchanged.

2.24 Mining of 85,000 TPA of Sand, Bajri and Boulders in River Ton Lot No. 3/13 by M/s Garhwal Mandal Vikas Nigam Ltd. from mining lease area 6.0 Ha located at Village-Banshiwala, Tehsil- Vikashnagar, Distt-Dehradun, Uttarakhand. [File No. J11015/88/2013-IA-II(M); Proposal No: IA/UK/MIN/18419/2013; Consultant: Grass Root Research & Creation India (P) Ltd.]-EC Regarding

1. The proposal of M/s Garhwal Mandal Vikas Nigam Ltd. (GMVN) is for

production of 85,000 TPA of Sand, Bajri and Boulders in River Yamuna Lot No. 3/13 from mining lease area 6.0 Ha located at Village-Banshiwala, Tehsil-Vikashnagar, Distt-Dehradun, Uttarakhand. The Project Proponent submitted that mining lease area is coming under Survey of India Topo-Sheet No 53F14 and falls between Latitude: 30° 20' 29.19" N to 30° 20' 20.58" N & Longitude: 77° 53' 33.35" E to 77° 53' 49.23" E.

2. PP did not attend the meeting, **therefore, the proposal was deferred.**

2.25 Enhancement of production from 2.824 Million TPA to 4.324 Million TPA in respect of Birla Cement Limestone mines of M/s. Birla Cement Works in M.L. Area of 588.59 Ha located at Villages – Bherda, Jai, Surjana & Nagri, P.O. Semalpura, Tehsil & District Chittorgarh (Rajasthan) [Proposal No. IA/RJ/MIN/22914/2014; File No. J-11015/73/2014-IA.II (M)] – Consideration of Environmental Clearance regarding.

1. The proposal of M/s. Birla Cement Works is for enhancement of production capacity from 2.824 Million TPA to 4.324 Million TPA in respect of Birla Cement Limestone mines of M/s. Birla Cement Works in M.L. Area of 588.59 Ha. The project also envisages installation of Beneficiation Plant with capacity of 200 TPH for the crusher waste; Installation of Stationary/ Mobile Crusher with capacity of 500 TPH at Nagri pit; Installation of Over Land Belt Conveyor (OLBC) with capacity of 900 TPH from Nagri pit to Jai Surjana crushed limestone stock yard; and Installation of 5 MW Solar Power Plant at Bherda. The mine is located at Villages – Bherda, Jai, Surjana & Nagri, P.O. Semalpura, Tehsil & District Chittorgarh (Rajasthan). The instant mine lease area is spread into two blocks viz. Block B (Village - Bherda) & Block C (Villages -Jai, Surjana & Nagri which fall in Survey of India Topo sheet No. 45L/9. The Block B of mining lease area falls between 24°54'45.42"N to 24°56'4.47"N latitudes and 74°38'4.84"E to 74°39'27.5"E longitudes while the Block C of mining lease area falls between 24°56'2.2"N to 24°58'17.3"N latitudes and 74°39'58.8"E to 74°42'5.4"E longitudes. The PP also presented the KML file during the EAC presentation to indicate the location of mine lease on Google Earth/ DSS.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the mining lease area is more than 100 ha.

3. PP reported that the company was granted mining lease of 1546.8 Ha in year 1964 which was spread into three blocks viz. Block A (Village Bhoikhera – 72 Ha), Block B (Village Bherda – 700 Ha) & Block C (Villages Jai, Surjana & Nagri – 774.8 Ha). The company surrendered 958.21 Ha of the lease area i.e. Bhoikhera – 72 Ha, Bherda – 476.21 Ha and Jai, Surjana & Nagri – 410 Ha. During demarcation for second renewal, in Bherda Block the area was reduced from 234.00 Ha to 223.79 Ha (8.79 Ha was allotted to quarry licenses by State Govt. and 1.42 ha is not available for grant due to computation error, hence, finally retained lease area is 588.59 Ha which is lying in Block-B and Block-C. The lease documents submitted by the PP

indicate that first renewal was done from 19.06.1984 to 18.06.2004, however, the second lease was pending thereafter. The Department of Mines and Geology vide its letter dated 16.03.2015 has mentioned that post MMDR Amendment Act, 2015; the mine lease validity has been extended to 31.03.2030. It is also mentioned in the letter that the mine lease was valid only till 18.06.2004. **The Committee noted the same and considering the past production details, observed that a clarity from the State Government is required as to how such cases be dealt wherein lease validity has been extended retrospectively. In the instant matter, the mine has operated after end of mine lease validity i.e. 18.06.2004.**

3. PP submitted that the Environment clearance was granted for Jai Surjana limestone mine (M.L. Area 364.80 Ha) by MoEFCC, New Delhi vide letter no. J-11015/256/2005-IA.II (M) dated 17.09.2007 Bherda Limestone Mine (M.L. Area - 234 ha) vide letter no. J-11015/232/2005-IA.II (M) dated 25.09.2007.

The proposal of ToR was earlier considered by the EAC in its meeting held during April 30, 2014 wherein the Committee recommended for grant of ToR to the PP. The Ministry issued **Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/73/2014-IA.II (M) dated 10.09.2014 and amendments in ToR & extension of the validity of ToR (up to 09.09.2017) was issued on 10.06.2016.**

PP applied for Environment Clearance **vide Proposal No. IA/RJ/MIN/22914/2014 dated 30.08.2017. The proposal was placed in the 22nd EAC Meeting held during September 19-20, 2017** wherein the Committee noted that the proposal of PP is based on 4.324 Million TPA of limestone ore, however, PP is advised to indicate total excavation (equivalent to 4.324 Million TPA of limestone production) as per the approved Mining plan based on EC capacity shall be fixed. The EIA Report/ EMP was submitted to Ministry on 24.05.2017 for appraisal. The Committee observed the past production details submitted by PP and noted the PP's submission that first EC was obtained EC in 2003-04 and then in 2007-08, however, the past production details indicate that it has made expansion in production under EIA, 1994 progressively. However, the PP submitted that it had valid Consent at the time of production. The Committee, therefore, asked the PP to present details of permissions obtained by it since 1993-94 (EC as well as Consent) vis-a-vis authenticated production figures for further examination of the issue in view of the judgement passed by Hon'ble Supreme Court of India on 02.08.2017 in the matter of Common Cause Vs Union of India & Others.

4. PP reported that lease area involves 27.13 Ha of forest land for which diversion letter has been issued by MoEFCC, New Delhi vide letter no. 8-31/96-FC dated 06th February 2001. The Divisional Forest Officer, Chittaurgarh issued a letter for handover the forest land for mining activities in favor of M/s. Birla Cement Works vide letter no./Tech/05/4492-98 dated

06.07.2005. The Deputy Conservator of Forest, Chittaurgarh issued a letter regarding status of forest land vide letter no. 1253 dated 05.02.2013 mentioning that NPV was not applicable on date 06.02.2001 (date of grant of FC) & Compensatory Afforestation Cost was applicable only. The Deputy Conservator of Forests (Wildlife), Chittaurgarh vide its letter no.F() Survey/DFO/WL/17-18/4094 dated 25.08.2017 has mentioned that the boundary of mine lease area is 8.1 km away from the Bassi Wildlife Sanctuary which is also declared as a Eco-Sensitive Zone as per the Draft ESZ notification. However, since final ESZ notification has not yet come, buffer zone of 10kms from lease area has been considered.

5. The authenticated list of Schedule-I species has also been provided vide letter dated 25.08.2017. The PP has submitted Wildlife Conservation Plan in respect of 4 species namely Peafowl, Leopard, Python and Indian Lizard with budgetary allocation of ₹117.5 lakhs for 10 years. However, the exact period of start and end of the conservation plan is not clear. Further, as the mine is an existing operational mine, it is not clear from the MoEFCC R.O. Compliance Monitoring report whether any wildlife conservation plan was approved earlier and implemented in consultation with State Forest Department. **The Committee further noted that the mine is operating since 1964 and the Bassi Wildlife Sanctuary is falling within the buffer zone of 10 Kms, hence, the PP was required to take NBWL Clearance after 2009. Hence, the Ministry may take action as per applicable provisions. The Committee also asked the PP to increase the budget of the Wildlife Conservation Plan as the area is rich in bio-diversity. The PP submitted to increase the budget of the Wild Life Conservation Plan to ₹225 Lakhs from ₹117.5 lakhs for 10 years, however, the Committee asked the PP to present breakup of the after consultation with State Forest Department.**

6. The Scheme of Mining along with Progressive Mine Closure Plan for 588.59 ha was approved by IBM, Udaipur vide their letter no. 682(23) 739/2010 KHA-N-KHA (U) UDAY dated 30.04.2015.

7. PP reported that mining was being done using deep hole blasting loading by hydraulic excavator into dumpers and unloading into 1000 TPH impact crusher hopper located within mining lease. But mining operations got majorly discontinued from 20.8.2011 to 29.7.2013 as per the orders of Honorable High Court on a PIL filed by locals. During hearing on 29th July 2013, Hon`ble Supreme Court permitted mechanical excavation of rocks without blasting, hence mechanical excavation started with ripper attached to Excavators, Surface Miner, Terminator & Rock Breaker etc. During further hearing on 23 Sept 2013, Hon`ble Supreme Court has advised Central Building & Research Institute (a branch of CSIR) to conduct long term study to understand impact on Chittaurgarh Fort due to full scale mining operations and submit report within six months. The final report has been submitted by CBRI to Hon`ble Supreme Court on 30th Sept 2014 but final judgement is awaited. Blasting will be done if permitted by Hon`ble Supreme Court. **The Committee asked the PP to submit an Undertaking clearly**

stating that they will be abiding to the interim orders of the Hon`ble Supreme Court at present.

8. PP has reported that existing water requirement is 365 KLD and total water requirement for this project after expansion will be 1505 KLD which will be met from the mine sump water thus there will be no ground water abstraction except for drinking. The water level in the core area varies from 9 to 46 m below ground level (bgl) (388 to 351 mRL) in Block B and 34 to 44 m bgl (361 to 351 m RL) in Block C. The ultimate working depth will be 48 m bgl (347 m RL). Hence, water table will be intersected during mining activities (Refer Pg.183 of EIA Report/ EMP). However, it has been mentioned in ToR compliance that groundwater intersection will not take place. **The Committee, accordingly, asked the PP to mention clearly whether groundwater intersection shall be encountered or not and if any application has been made to CGWA in this regard.**

9. PP has reported that one seasonal nallah passes through Nagri pit of the mining lease which will require diversion within the lease area. Afterwards, the diverted nallah will be joined with the original course of mining lease area with proper safeguard measures as per the approved mining plan. **The Committee discussed the matter in details and asked the PP to substantiate its submission with facts and a detailed hydrogeological study clearly mentioning the impact of diversion of Nallah on nearby areas.**

10. The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna has been collected during Post monsoon Season i.e. from October – December, 2014. The monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and the same were reported to be in respective prescribed ranges viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water & surface water) and ambient noise limits prescribed by CPCB. The soil quality was observed to be neutral in nature with good nitrogen content.

11. Public hearing for the project was conducted on 30.08.2016 at Near Mahakaleshwar Temple, M/s Birla Cement Lime Stone Mines, Villages – Jai, Tehsil and District - Chittaurgarh under the chairmanship of Additional District Collector, Chittaurgarh and Regional Officer, Rajasthan State Pollution Control Board. During the public hearing, the major issues raised by the local people were related to damaged road to village-Nagri, location of crusher in grazing land, no development in the area, discharge of wastewater from mines, noise pollution by mining operations and cement plants, blasting/ vibration from machines leading to cracks in houses, opening of hospital in the area and provision of free medical facility, adverse impact of mining on human health and cattle stock, adverse impact of mining on agriculture and other local development related issues. PP submitted that it is engaged in social upliftment of the area and providing the basic amenities to nearby villagers for water distribution, building of schools, hospitals, etc. and all this adds to the economic benefits to the locals of the activity area. It

has made expenditure for the same over the years and proposes to further augment the activities by providing a budgetary allocation of ₹1.65 Crores under CSR and ₹1.35 Crores under ESC budget. **However, the Committee noted that PP needs to enhance its budget to address the issues raised in Public hearing under Enterprise Social Commitment. The PP submitted to increase the ESC budget to ₹275 Lakhs from ₹135 lakhs for 5 years, however, the Committee asked the PP to present breakup of the same.**

12. PP reported that there is no court case/ litigation pending against the project except the one mentioned above related to blasting issues in the vicinity of Chittaurgarh fort.

13. The Committee took note of the Compliance Report of MoEFCC R.O. Lucknow dated 18.01.2017 and noted that PP has reportedly complied with the conditions prescribed by MoEFCC.

14. The Committee made detailed deliberations in its 22nd EAC Meeting held during September 19-20, 2017 on the proposal & presentation made by PP, and deferred the proposal for want of additional information from PP as well as examination of the proposal at Ministry in respect of the following:-

- *Quantity of Total excavation (equivalent to 4.324 Million TPA limestone)*
- *Examination of the proposal in view of the judgement passed by Hon'ble Supreme Court of India on 02.08.2017 in the matter of Common Cause Vs Union of India & Others after submission of details of permissions obtained by it since 1993-94 for mining operations (EC as well as Consent) vis-à-vis year-wise authenticated production figures.*
- *Initiating action as per applicable provisions as the mine is operating since 1964 and the Bassi Wildlife Sanctuary is falling within the buffer zone of 10 Kms, hence, the PP was required to take NBWL Clearance after 2009.*
- *Clarification from State Mining Department on how such cases are being dealt at State level considering that lease validity has been extended retrospectively in 2015. In instant matter, the first renewal expired on 18.06.2004 while PP continued mining till 2015 and was granted extension under MMDR Amendment Act, 2015.*
- *Breakup of activities to be undertaken for addressing PH under Enterprise Social Commitment with budget of ₹275 Lakhs.*
- *Breakup of Wildlife Conservation Plan of ₹225 Lakhs*
- *Detailed hydro-geological study clearly mentioning the impact of diversion of Nallah on nearby areas*

- *Undertaking by PP clearly stating that it is abiding to the interim orders of the Hon`ble Supreme Court at present in the on-going case relating to Chittaurgarh Fort.*
- *Clarification with respect to mine working below ground water table.*

15. In response to the queries, PP submitted incomplete reply on 31.10.2017 and accordingly, PP was requested again to submit reply w.r.t. all the queries. **A detailed reply was uploaded on the MoEFCC portal 30.11.2017.** The corresponding replies to the queries raised by EAC are as mentioned below:

Sl. No.	Query	PP's reply
1.	Quantity of Total excavation (equivalent to 4.324 Million TPA limestone)	Some part of limestone production is contributed from beneficiation plant. Max. Total excavation is 6.660 Million TPA and corresponding ROM is 4.963 Million TPA including Crusher waste.
2.	Examination of the proposal in view of the judgement passed by Hon`ble Supreme Court of India on 02.08.2017 in the matter of Common Cause Vs Union of India & Others after submission of details of permissions obtained by it since 1993-94 for mining operations (EC as well as Consent) vis-a-vis year-wise authenticated production figures.	The Mine is in operation since year 1964. Before obtaining Environmental Clearances, Production was being done under the consented capacity since 1996. Production details since 1964-65 are also attached.
3.	Initiating action as per applicable provisions as the mine is operating since 1964 and the Bassi Wildlife Sanctuary is falling within the buffer zone of 10 Kms, hence, the PP was required to take NBWL Clearance after 2009.	PP submitted the proof of its correspondence with State Forest Department Officials since 2014 and mentioned that it could not obtain the details of the boundary of the WLS. However, the application for NBWL clearance was submitted on 04.04.2016.
4.	Clarification from State Mining Department on how such cases are being dealt at State level considering that lease validity has been extended retrospectively in 2015. In instant matter, the first renewal expired on 18.06.2004 while PP continued mining till	A letter dated 23.11.2017 has been submitted from DMG, Chittaurgarh restating the factual details and mentioning that lease validity is till 31.03.2030

	2015 and was granted extension under MMDR Amendment Act, 2015	
5.	Breakup of activities to be undertaken for addressing PH under Enterprise Social Commitment with budget of ₹275 Lakhs.	The breakup of activities under ESC budget of ₹275 Lakhs is submitted.
6.	Breakup of Wildlife Conservation Plan of ₹225 Lakhs	The breakup of activities under ESC budget of ₹275 Lakhs is submitted
7.	Detailed hydro-geological study clearly mentioning the impact of diversion of Nallah on nearby areas	A detailed hydro-geological study has been submitted explaining the PP's plan to divert nallah and its impacts
8.	Undertaking by PP clearly stating that it is abiding to the interim orders of the Hon'ble Supreme Court at present in the ongoing case relating to Chittaurgarh Fort.	Undertaking by PP clearly stating that it is abiding to the interim orders of the Hon'ble Supreme Court at present in the ongoing case relating to Chittaurgarh Fort.
9.	Clarification with respect to mine working below ground water table.	PP has submitted that GW table shall be intersected and permission of CGWA shall be obtained before intersection.

16. The proposal was again placed in the 25th EAC meeting held during December 21-22, 2017. In view of the submissions of the PP mentioned above, the following was observed by the Committee:

- The ROM quantity equivalent to mining of 4.324 Million TPA of limestone is 4.963 Million TPA and accordingly, the capacity on ROM basis be fixed.
- As per the past production and consent details, the PP was operating since 1964-65 whereas the Consent was obtained in 1996 only. The EIA regime started from 1994 and only those operational projects which have been working under valid NOC from State Pollution Control Boards were exempted till they undergo expansion/ modernisation. The PP did not had valid NOC from SPCB in 1993-94, hence, it was required to obtain an EC in 1994. Further, it has progressively increased its production from 1993-94 levels without obtaining EC. The EC was first obtained in 2004. Hence, the proposal attracts the Hon'ble Supreme Court Judgment dated 02.08.2017.
- As the Bassi WLS is falling within 10 kms, the PP was required to obtain NBWL in 2009, however, till date the PP has not obtained NBWL. PP had submitted NBWL clearance application on 04.04.2016. Hence, the NBWL clearance matter may be referred to concerned division in MoEFCC as well as State Wildlife Department for taking necessary action under

applicable provisions.

- The DMG Office, Chittaurgarh has re-stated the facts and mentioned that M.L. validity is 31.03.2030.
- The Committee noted the break-up details of ESC as well as Wildlife Conservation plan provided by the PP and recommended the same.
- The Committee noted the submissions of PP w.r.t. diversion of nallah and recommended that in case the diversion of nallah/ stream is unavoidable, then the same should be done in consultation with State Water resources / State Groundwater Department at PP's cost.
- The Committee noted the undertaking provided by PP with regard to Supreme Court matter on impact of mining on Chittaurgarh Fort.
- The Committee noted that GW table intersection is proposed during mining operations; hence, PP may submit the proof of application made for obtaining such clearance from CGWA.

The Committee made detailed deliberations on the proposal and **deferred** the proposal. The following was suggested for action:

- *PP to submit Proof of submission of application for CGWA clearance for water table intersection.*
- *PP to submit NOC from State Government clearly stating that no dues are pending towards illegal mining as per Section 21(5) of the MMDR Act, 1957 in pursuance of the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others*
- *Ministry to examine and refer the matter of nil NBWL clearance till date to Wildlife Division, MoEFCC and State Wildlife Department.*

In this context, **PP vide letter dated 14.03.2017** submitted the following information which were deliberated by the EAC. The details are as below:

- (i) PP has reported that the application for taking permission for dewatering of ground water has been submitted to CGWB vide letter dated 29th March, 2018 (Online) and on 02nd April, 2018 (Hard copy).
- (ii) The Committee in its earlier meeting observed that as per the past production and consent details, the PP was operating since 1964-65 whereas the Consent was obtained in 1996 only. The EIA regime started from 1994 and only those operational projects which have been working under valid NOC from State Pollution Control Boards were exempted till they undergo expansion/ modernization. The PP did not had valid NOC from SPCB in 1993-94, hence, it was required to obtain an EC in 1994. Further, it has progressively increased its production

from 1993-94 levels without obtaining EC. The EC was first obtained in 2004. Hence, the proposal attracts the Hon'ble Supreme Court Judgment dated 02.08.2017. In this context, the Committee suggested that the PP shall obtain NOC from State Government clearly stating that no dues are pending towards illegal mining as per Section 21(5) of the MMDR Act, 1957 in pursuance of the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others.

PP reported that No dues certificate was issued by State Govt. of Rajasthan, Department of Mines & Geology, vide letter ME/Chittor/Mang/Vividh/ML 10/1983/2018/371, dated 17.04.2018. The Department of Mines & Geology in its letter mentioned that there are no dues in respect of illegal mining as per provision given in section 21(5) of MCDR Act 1957 for mining lease no. ML 10/1983 of mineral limestone (cement grade) near village Bherda Jai Surjana & Nagri granted in favour of M/s Birla Cement Works. The State Govt. letter inter-alia mentioned that reference of PP's letter but does not mentioned about the reference of judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others. **The Committee deliberated the issues and suggested that Ministry to further examine the issues w.r.t. the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others.**

- (iii) The Committee in its earlier meeting observed that the Bassi WLS is falling within 10 kms, the PP was required to obtain NBWL in 2009, however, till date the PP has not obtained NBWL. PP had submitted NBWL clearance application vide proposal no.- FP/RJ/MIN/656/2016 on 04.04.2016. Hence, the NBWL clearance matter may be referred to concerned division in MoEFCC as well as State Wildlife Department for taking necessary action under applicable provisions.

17. The Committee deliberated the proposal in the 30th EAC meeting held during April 23-24, 2018 and based on the information submitted by PP, the Committee **deferred** the proposal and the Proposal may be considered only after examination of the issues **w.r.t. the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others and comments of NBWL Division as well as State Wildlife Department for taking necessary action under applicable provisions.**

18. The Ministry informed the same to PP on 07.05.2018. In response to the same, **PP vide its letter dated 14.05.2018 and uploaded on PARIVESH on 21.05.2018** submitted the following:

- Authenticated production figure since 1965-66 to 2016-17, duly certified by Mines & Geology department, GoR, Chittorgarh vide letter dated Nil and No. Kha.A./Chittor/A.Ni./ML 10/1983/335 18.09.2017.

- Copies of Consent to Operate since 1996 to 2022.

19. **The Ministry vide its letter dated 31.05.2018**, requested PP to submit the following information in respect of deliberations made by EAC during April 23-24, 2018 meeting:

1. PP shall obtain modified NOC from State Government clearly stating that no dues are pending towards illegal mining as per Section 21(5) of the MMDR Act, 1957 in pursuance of the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others.
2. *"The Committee in its earlier meeting observed that the Bassi WLS is falling within 10 kms, the PP was required to obtain NBWL in 2009, however, till date the PP has not obtained NBWL. PP had submitted NBWL clearance application vide proposal no.- FP/RJ/MIN/656/2016 on 04.04.2016. Hence, the NBWL clearance matter may be referred to concerned division in MoEFCC as well as State Wildlife Department for taking necessary action under applicable provisions."*

State Wildlife Department is requested to provide the necessary comments on the above mentioned issue and provide details of action, if any, taken on the NBWL issue.

20. In response to above point 1, **PP vide its letter dated 06.06.2018** submitted the *NOC obtained from State Government vide letter No. Kha.A./Chittor/Maang/Vividh/M.L.10/1983/2018/397 dated 05.06.2018.*

21. **The Ministry on 04.07.2018 informed the PP** that *"The comments of State Wildlife Department is still awaited kindly submit the complete information. Also PP was requested to submit Form-II as per OM dated 20.04.2018."*

22. PP has vide its letter dated 08.05.2020 has submitted the following information:

- i. PP reported that the Proposal of NBWL has been recommended in 56th meeting of the Standing committee of National Board for Wildlife (Minutes submitted). PP has also submitted the letter issued from APCCF & Chief Wildlife Warden vide letter no F () WLC/CWLW/2019 dated 27.02.2020 w.r.t. in-principle approval for proposal for enhancing limestone mining from 2.824 mTPA to 4.324 MTPA in the mining lease area of 588.59 ha proposal of M/s. Birla Cement Works.
- ii. PP has submitted the Form-2 along with annexed documents.

23. After detailed deliberations and examination of the reply to the ADS points submitted by the PP, the committee recommended for enhancement of production capacity from 2.824 Million TPA to 4.324 Million TPA in respect of Birla Cement Limestone mines of M/s. Birla Cement Works in M.L. Area of

588.59 Ha subject to following specific conditions in addition to the standard conditions.

- 1) The PP shall implement the recommendation of the Chiefwildlife warden in respect of wildlife conservation plan in respect of 4 species namely Peafowl, Leopard, Python and Indian Lizard.
- 2) Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, inter alia, including plantation with not less than 12 ft height native species all along the boundary of the mining lease shall be completed in the ensuing monsoon (Monsoon of 2020), record keeping, gap plantation and grassing as per the directions of the Hon'ble SC.
- 3) As committed by the PP, Rs. 275 Lakhs shall be allocated towards Corporate Environment Responsibility (CER) for the commitments made on the issues raised in PH to be implemented in a period of three years and record for the same shall be maintained and audited and reported to the Regional Office of the Ministry along with the compliance reports.
- 4) Total excavation shall not be more than 6.660 Million TPA and corresponding ROM is 4.963 Million TPA including Crusher waste.
- 5) No blasting shall be carried without permission from the Hon'ble Supreme Court and abide the interim orders of the Hon'ble Court, Meanwhile, shall carry out the mechanical excavation of rocks without blasting with ripper attached to excavators, Surface Miner, Terminator & Rock Breaker etc.
- 6) No groundwater intersection shall be made without permission from the CGWA.
- 7) Total water requirement for project after expansion shall not be more than 1505 KLD, which shall be met from the mine sump water thus there shall be no ground water abstraction except for drinking.
- 8) As per the EIA Report, the limestone shall transport only through the overland conveyor system from the crusher to the cement plant.
- 9) Effective dust control measures shall be taken at the crusher and transferpoints along the conveying system.

Standard Terms of Reference (TOR) for Mining Project

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.

9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy

furnished.

18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.

20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

22) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season); December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.

23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.

30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.

31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and

native species and the species which are tolerant to pollution.

32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

42) A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.

43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

44) Besides the above, the below mentioned general points are also to be followed: -

a) All documents to be properly referenced with index and continuous page numbering.

b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

d) Where the documents provided are in a language other than English, an English translation should be provided.

e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

h) As per the circular no. J-11011/618/2010-IA. II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and

(iii) Sections of the mine pit and external dumps, if any, clearly showing the

land features of the adjoining area.

Annexure-II

Standard Tor Beneficiation

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. It should be clearly indicated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so,

it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

15. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.

16. The study area will comprise of 10 km zone around the Plant.

17. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.

18. Location of Railway siding with its handling capacity and safety measures should be indicated.

19. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.

20. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

21. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.

22. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the Project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

23. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry

clearance should also be furnished.

24. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

25. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

26. A study shall be got done to ascertain the impact of the Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.

27. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

28. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

29. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.

30. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the unit w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

31. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to

assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects, should be discussed in the report.

32. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the predominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the unit in the predominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

33. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

34. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

35. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished.

36. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

37. Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.

38. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

39. A time bound Progressive Greenbelt Development Plan shall be

prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to the pollution.

40. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.

41. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.

42. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area should be detailed.

43. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

44. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

45. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

46. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.

47. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

48. A brief background of the Project, its financial position, Group Companies and legal issues etc should be provided with past and current important litigations if any.

49. Benefits of the Project, if the project is implemented should be outlined.

The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.

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

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

Annexure-III

Standard EC Conditions: (As Ministry's O.M No 22-34/2018-IA.III dated 8.01.2019 and Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020)

I. Statutory compliance

- 1) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced 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 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- 4) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 5) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 6) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 7) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- 8) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 9) The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 10) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 11) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while

processing the proposal.

12) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.

13) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.

14) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

15) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

16) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

1) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

2) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

3) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

4) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and

Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

5) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

6) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

7) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

8) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

9) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

10) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

11) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including

laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

12) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, overburden, interburden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.

13) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

14) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

VI. Land reclamation

15) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

16) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

17) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

18) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

19) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.

20) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

21) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

22) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

23) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

24) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. **Green Belt**

25) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

26) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The

density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

27) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

28) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

29) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

30) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.

31) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

32) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

33) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.

34) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

35) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

36) The activities proposed in Action plan prepared for addressing the

issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

37) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

38) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.

XI. Miscellaneous

39) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

40) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

41) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

42) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.

43) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

44) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the

mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

Annexure-IV

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: The Committee has also deliberated the various specific recommendations of carrying capacity study report conducted by CSIR-NEERI w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha. There are recommendation which needs to be implemented by the State Govt. of Odisha and Project Proponent.

1) Project Proponent and Department of Steel & Mines, Govt. of Odisha shall ensure the implementation of recommendations of carrying capacity study report conducted by CSIR-NEERI w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha.

2) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.

3) Project Proponent shall construct the cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road with minimum 300 m inside the mine. This should be done within one year for existing mines and new mine should have since beginning. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested.

4) The Committee observed that as per the recommendations of NEERI report the PP needs to do regular vacuum cleaning of all mineral carrying roads aiming at “zero dust re-suspension” within 3 months.

5) Project Proponent shall monitor the environmental quality parameters as per EC and CTE/CTO conditions, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions.

Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable Acts.

6) Project Proponent shall ensure the compliance of Suggested Ore Transport Mode (SOTM) with association of the State Government of Odisha. All existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

7) The State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha. Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to Regional office of the MoEF&CC.

8) Project Proponent shall develop the parking plazas for trucks with proper basic amenities/ facilities inside the mine. This should be done within one year for existing mines and new mines should have since beginning.

9) Department of Steel & Mines shall ensure the construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. This shall be completed within 2 Years.

10) Regular vacuum cleaning of all mineral carrying roads aiming at “Zero Dust Re- suspension” shall be adopted by PWD / NHAI/ Mine Lease Holders within a time Period of 3 months for existing roads..

11) In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

12) R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML,

Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders.

13) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.

14) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.

15) Mining Operations/Process Related: Project Proponent shall implement the following mitigation measures: (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and

maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders.

16) Air Environment Related: Project Proponent shall implement the following mitigation measures: (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use waterfogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM10, PM2.5, SO2, NOx and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM10, PM2.5, SO2, NOx and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate), Responsibility: Individual Mine Lease Holders and SPCB.

17) Noise and Vibration Related: Project Proponent shall implement the following mitigation measures: (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly

rocks and boulders should be implemented. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.

18) Water/Wastewater Related: Project Proponent shall implement the following mitigation measures: (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is

transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) Thewater so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

19) Land/ Soil/ Overburden Related: Project Proponent shall implement the following mitigation measures: (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site (s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes selfsustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v)

Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.

20) Ecology/Biodiversity (Flora-Fauna) Related: Project Proponent shall implement the following mitigation measures: (i) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (ii) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (iii) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (iv) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (v) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (vi) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

21) Socio-Economic Related: Project Proponent shall implement the following mitigation measures: (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the

quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for “SamagraVikas” of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan MantriKhanijKshetraKalyanYojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.

22) Road Transport Related: Project Proponent shall implement the following mitigation measures: (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM10 should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.

23) Occupational Health Related: Project Proponent shall implement the following mitigation measures: (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer).

Annexure-V

Standard EC conditions for Mineral Beneficiation Plants:

Standard EC conditions for mineral beneficiation plants which are mentioned in Ministry's OM No. 22-234/2018-IA-III dated 09th August 2018.

List of member of Expert Appraisal Committee Participated through VC

S.No	Member Name	Member Address	Designation	22nd June	23rd June	24th June
1	Dr. S.R. Wate	Add. 148/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Chairman	Yes	Yes	Yes
2	Shri.Sharath Kumar Pallerla	3rd Floor, Vayu Block, Indira ParyawaranBhawan, MoEF&CC, Jorbhag, New Delhi-11003	Member Secretary	Yes	Yes	Yes
3	Shri B Ramesh Kumar	H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025,Andhra Pradesh	Member	No	Yes	Yes
4	Prof. S. Ramakrishna Rao	50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	Yes	Yes	Yes
5	Shri Santosh Gupta	Flat No. 405, Block –B, Gaur Green Vista, NyayKhand -1, Indrapuram, Ghaziabad-201014	Member	Yes	Yes	Yes
6	Dr. (Ms.) Asha Rajvanshi	Wildlife Institute of Inida, Chandrabani, Dehradun-248001	Member	No	No	No
7	Dr. Ajay Deshpande	Building A-26, Flat-403, Happy Valley Homes, Manpada, Ghodbunder Road, Thane (West) - 400610, Maharashtra	Member	Yes	Yes	Yes
8	Shri G.P. Kundargi	Plot No. 32, MOIL Vatika, Chicholi Road, Fetri, Nagpur 441501, Maharashtra	Member	Yes	No	Yes
9*	Dr. A.K. Malhotra	C-6, SubhavnaNiketan, Road No. 41, Pitampura, Delhi-110034	Member	Yes	Yes	Yes
10	Dr. Gurdeep Singh	Centre of Mining Environment, Department of Environmental Science &Engg. Indian Institute of Technology (Indian School of Mines), Dhanbad-826004	Member	Yes	Yes	Yes
11	Dr. Parimal	A/3 Asiyana Housing Complex	Member	No	No	No

	Chandra Bhattacharjee	Maligaon, Guwahati-781011, Assam				
12	Prof. MukeshKhare	Department of Civil Engineering, IIT, Delhi	Member	No	No	No
13	Mr. V. K. Soni	Government of India, Ministry of Earth Sciences, India Meteorological Department, MausamBhawan, Lodi Road, New Delhi – 110003	Member	Yes	Yes	Yes
14	Sh. Peeysh Sharma	Regional Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	No	No	No
15	Sh. Aftab Ahmend	Representative of DGMS, DMS, Room No. 201-203, II Floor, B- Block, CGO-II,, Hapur Rd, Kamla Nehru Nagar, Ghaziabad, Uttar Pradesh 201002	Member	No	No	No

Note: Dr. AK Malhotra, Member, EAC has not participated in respect of deliberations of item No. 2.6 of Agenda.

6/30/2020

Email

Email

sharath.kr@gov.in

Re: draft MoM of the 18th EAC held during 22-24 June, 2020 for kind perusal and approval - Regarding

From : satishwate@gmail.com

Tue, Jun 30, 2020 06:12 PM

Subject : Re: draft MoM of the 18th EAC held during 22-24 June, 2020 for kind perusal and approval - Regarding

To : Sharath Kumar Pallerla <sharath.kr@gov.in>

Dear Dr. Sharath,
The minutes of the 18 th EAc Non Coal is found in order and approved

Satish Wate
Chairman EAC Non Coal

Sent from my iPhone

On Jun 30, 2020, at 2:31 PM, Sharath Kumar Pallerla <sharath.kr@gov.in> wrote:

Dear sir
Please find attached herewith draft MoM of the 18th EAC held during 22-24 June, 2020 for kind perusal and approval
Regards



<Draft MoM 18th EAC 22-24June.docx>
