

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

SUMMARY RECORD OF 19th 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 **July, 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 18th EAC Meeting held during June, 22-24, 2020

The minutes of 18th EAC Meeting held during 22nd - 24th June, 2020 was placed before the members of the Committee. The committee confirmed the minutes subject to the corrections as given below in the Item No. 2.10 of the 18th EAC.

The project proponent, submitted a request through an e-mail dated 3rd July, 2020 for the following amendments in 18th EAC in respect of Item No. 2.10:

Page No.	Para No.	Line No.	As Per MOM of 18 th EAC (Non-Coal Mining) Meeting	Corrigendum Requested by project proponent	Recommended by EAC during 19 th EAC
75	2.10	4	Survey No. '26P' Private Santhani Land Survey No. 26P7, 26P10, 26P22	Survey No. '26P' and '27P' Private Santhani Land Survey No. 26P7, 26P10, 26P22	Changes sought by PP recommended by the EAC
75	2.10	7	8P1, 8P2, 8p9, 183, 26P10, 27P10, of Village: Mudhvay, Taluka:	8P1, 8P2, 8p9, 18P3, 26P10, 27P10, of Village: Mudhvay, Taluka:	
76	1	2	area of 251.9 ha, the mine lease area is located at Govt land Survey No. '26P'	area of 251.9 ha, the mine lease area is located at Govt land Survey No. '26P' and '27P'	
76	1	5	26P37, 26P9, 26P19, 26P27, 26P63, 26P47, 26P12, 8P1, 8P2, 8p9, 183,	26P37, 26P9, 26P19, 26P27, 26P63, 26P47, 26P12, 8P1, 8P2, 8p9, 18P3,	
76	1	8	23°42'43.6432" N to 23°43'59.9313" N and Longitude: - E 68°41'51.6687" E	23°42'43.6432" N to 23°44'04.9094" N and Longitude: - E 68°41'51.6687" E	
76	6	11	ultimate pit slope will be 450 and slope of over burden will be maintained at	ultimate pit slope will be 450 and slope of over burden will be maintained at	
76	6	12	700. Overburden waste is loose material thus, not required drilling and	700. Overburden waste is loose material thus, not required drilling and	

The committee confirmed the 18th EAC minutes with the above said changes:

2.1 River Bed Mining Project from River Banas with Production Capacity of 3.624 MTPA of Sand/Bajri from maximum area of 246.638 Ha (identified by the State Government) in 5 years out of 1667.78 Haby M/s. S.R. Associates, located at near Villages: Amlı, Banthali, Jalseena, Jalerı, Jagatya, Nandpura, Rajmahal, Satwara, Santhali; Tehsil- Deoli; District: Tonk, Rajasthan (1667.78ha)

[F. No. J-11015/208/2013- IA.II (M); Proposal No. IA/RJ/MIN/20312/2013; Consultant - Overseas Min-Tech Consultants] – Consideration of EC

1. The proposal of M/s S.R. Associates is for River Bed Mining from the mining lease area located at Village(s) Amlı, Banthali, Jalseena, Jalerı, Jagatya, Nandpura, Rajmahal, Satwara, Santhali, Tehsil: Deoli, District: Tonk, Rajasthan. The lease area lies on River Banas and on SOI Toposheet No. 45 N/8, 45 N/12, 45 O/5 & 45 O/9. The Latitudes and Longitudes of the Mine Lease area are 25°52'13.66" to 25°59'19.75"N and 75°28'3.6" to 75°38'51.6"E respectively.
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 TORs was considered by the Expert Appraisal Committee (Non Coal Mining) in its Meeting held on 21st -23rd Aug, 2013 to determine the Terms of Reference (ToRs) for undertaking detailed EIA study. Terms of Reference (ToRs) has been issued by the Ministry vide letter no. J-1015/208/2013-IA.II (M) dated 14th October, 2013.
4. The project proponent videproposal no. IA/RJ/MIN/20312/2013 dated 31.10.2014 applied for Environmental Clearancewith Production Capacity of 7.2 million TPA (ROM) of Bajri. The mining lease area is located at Village(s) Amlı, Banthali, Jalseena, Jalerı, Jagatya, Nandpura, Rajmahal, Satwara, Santhali, Tehsil: Deoli, District: Tonk, Rajasthan. The Proponent submitted the EIA/EMP report to the Ministry for seeking environmental clearance after conducting Public Hearing.
5. The proposal of EC was appraised before the EAC in its meeting held during 10th- 11th December, 2014 wherein the Committee desired that PP has to submit the following documents/clarifications for further decision on the matter by the Committee where after Committee will take up the matter for further appraisal of the Project:
 - (i) The Committee has observed that Public made representation with regard to Water management, Socio- economic development, Employment, Transportation, pollution, damage of fertile land, water level degradation, fluoride concentration in water; and Time- bound Action Plan along with the budgetary allocation on the issues raised during the Public Hearing. In view of the above, the Committee was of the view that the PP has to make a proper Action Plan on the issues raised during the PH alongwith budgetary provisions and SPCB may be requested to submit all hard copies of the Representations received regarding the Project;
 - (ii) Committee noted that PP has not submitted the details w.r.t. disaster management plan and flood control mitigation measures. This may be done;
 - (iii) There is one Schedule-I species found in the study area. PP is to submit the approved Conservation Plan for Schedule-I species, duly approved by the Chief Wildlife Warden; and
 - (iv) Action Plan for ensuring good occupational environment for mine workers may be submitted based on Recommendations of any Nationally reputed

Institute; Both specific and Generic preventive measures may be elaborated in the Action Plan.

6. The Committee decided that the proposal be deferred and that the same be reconsidered without calling the PP after receipt of the above information/clarifications. The Ministry informed the PP about the same vide letter dated 20.01.2015.

7. In compliance to above stated ADS, PP vide its letter dated 12.01.2015 (uploaded on PRIVESH on 30.01.2015) submitted the following information:

- (i) PP submitted the Action Plan on the issues raised during the pH along-with budgetary provisions. PP also informed that as per the letter issued by Regional Officer, Rajasthan State pollution Control Board, Kishangarh vide letter no. RPCB/RO KSG/PH/2181 dated 31.07.2014, there are two representations received (refer page 4, para 5), the copies of the Representations received for the Project along-with the R.O letter is submitted by PP.
- (ii) PP submitted the Details w.r.t. disaster management plan and flood control mitigation measures.
- (iii) PP informed that one Schedule-1 species is found in the study area namely Peacock. Approval of Conservation Plan for Schedule-1 species is under process with the Chief Wildlife Warden for which PP submitted the receiving of the letter submitted to The Chief Wildlife Warden, Gov. of Rajasthan vide letter dated 06.01.2015.
- (iv) PP submitted Action Plan for ensuring good occupational environment for mine workers based on Recommendations of any Nationally Reputed Institute.

8. The Proposal of EC was appraised before the Expert Appraisal Committee in its meeting held during May 27-29, 2015. The matter was examined in the Ministry w.r.t. replenishment study and noted that the Ministry has issued the terms of reference and inter-alia mentioned a condition that the Project Proponent shall conduct a detailed replenishment study and submit the report along with the EIA/EMP. However, the Project Proponent has made a theoretical study based on Dendy Bolton's Replenishment Formula. In view of the above, the Ministry requested the EAC to recommend the amount of production on yearly basis based on a duly conducted scientific replenishment study before recommending Environmental Clearance. Accordingly, the proposal to discuss the replenishment study issues related to sand/bajri mining projects have been re-considered before the EAC meeting held during October 24-25, 2016. The Committee deliberated the issues w.r.t. replenishment study for the sand/bajri mining projects received from State of Rajasthan and the Committee suggested that Project Proponents shall first conduct a scientific replenishment study and submit the report before the EAC for further consideration of amount of production for mining of sand/bajri on yearly basis. Therefore, the Committee had deferred all such sand/bajri mining proposals of State of Rajasthan.

9. Further, based on above deliberation the Ministry vide its letter dated 02.01.2017 informed PP to kindly conduct a scientific replenishment study and submit the report to the Ministry for further consideration before the EAC.

10. The PP submitted the Scientific Replenishment Study Report (Phase-I Report) (December 2017) along-with an affidavit on 27.04.2018.

11. The Ministry informed on 13.06.2018 that the Committee deliberated the information submitted by PP and the Committee deferred the proposal and suggested that the proposal can only be considered after submission of requisite information which are detailed in the minutes of EAC held during May 30th-31st,

2018. The PP is requested to kindly see minutes of the Meeting for further necessary action. The Minutes of EAC held during May 30th-31st, 2018 w.r.t. the said proposal is as follows:

“The Member Secretary apprised the Committee that the Hon’ble Supreme Court vide its judgment dated 16.11.2017 in the matter of SLP(C) No.34134 of 2013 (State of Rajasthan Vs Nature Club of Rajasthan) has restrained river sand/ bajri mining in the State of Rajasthan in respect of 82 Letter of Intent (LoI) holders who had submitted their applications to the MoEFCC for grant of EC. The 19 PPs are covered under 82 LoI holders who have been restrained from carrying out river sand/ bajri mining. The nineteen (19) Proposals have submitted the Scientific Replenishment Study Report which was prepared by the Central Mine Planning & Design Institute (CMPDI). These 19 Proposals were considered by the Special EAC meeting held on 08.01.2018 wherein the Committee has made detailed deliberations and observed that M/s CMPDI has not presented its data in the Scientific Replenishment Study report as the same was accepted to be rough estimate and non-representative of the actual replenishment status.”

The Committee noted that there is a requirement of identification of active mining area within leased river stretches and subsequent identification and preparation of cross-section for assessing replenishment of sand in coming years. Hence, mining permission is technically required to be granted so as to conduct replenishment studies in future and demonstrate the same to State Govt. to regulate mining of paleo deposits in future. Accordingly, EAC recommended mining of river sand/ bajri to up to 25% capacity of the annual proposed production capacity **subject to submission** of information and undertaking as below:

- (i) 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;
- (ii) PPs and M/s CMPDI 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;
- (iii) 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;
- (iv) State Government of Rajasthan shall regulate the mining operations by PPs and submit report to MoEFCC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v) State Deptt. Of Mines & Geology and PPs are required to submit District Survey Report (DSR) in line with provisions made in Ministry’s notification dated 15.01.2016.

13. The Ministry, vide letter dated 05.02.2018 has requested Department of Mines and Geology, Government of Rajasthan/Project Proponent to submit the above mentioned information. In this context, the Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted the above mentioned information for 18 LOIs. They also mentioned that one LOI of Kapasan District Chittorgarh has been cancelled.

14. The information submitted by the Department of Mines and Geology, Government of Rajasthan/Project Proponent are technical in nature and

accordingly the proposals were placed before the EAC in its meeting held during May 30-31, 2018. The point wise information and detailed deliberation by the EAC is as below:-

- (i) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has mentioned that the DMG has asked concerning Mining Office to submit demarcated river stretch through latitudes and longitudes where river sand/bajri mining can be permitted based on available reserves and Original Ground Level at each cross section in consultation with State Irrigation Department.

Name of Lease holder	Tehsil	District	ML Area (in ha)	River	Area selected for mining	
					No. of Blocks	Total Area (ha)
M/s. S.R. Associates	Deoli	Tonk	1667.78	Banas	2	256.645

The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what depth material will be excavated. Thus, the PP is required to submit the sections clearly marking the area to be excavated and depth of the excavation of mineral. The same needs to be verified by the State Mines and Geology Department, Govt. of Rajasthan.

- (ii) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted the location of Maps which duly signed by Senior Geologist and Mining Engineer, Department of Mines and Geology, Government of Rajasthan. It was found that the plans and sections were not depicting the date of survey further in order to ensure the ground survey PP should submit the date of survey the model no & details of the instrument used for the survey and the field recordings and observations taken the signatures should explicitly mention in the field book as well as plan & Sections.

- (iii) PP has submitted the undertaking dated 18.04.2018 which inter-alia mentioned that (a) The mining shall be done only upto one meter depth from Original Ground Level; (b) Scrapers shall be used for mining; (c) No other heavy machinery like excavators, JCB machines etc. shall be used for mining which may adversely impact the aquatic and biotic life; and (d) The report on bajri mining may be submitted quarterly to the State Government of Rajasthan.

- (iv) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted that the State Government shall regulate the mining operation after start of work and will submit quarterly report thereafter.

- (v) The District Survey Report as per the MoEFCC Notification dated 15.01.2016 has been submitted by Government of Rajasthan.

15. The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only valid up to 31.03.2018. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. 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.

16. The Committee deliberated the information submitted by State Government of Rajasthan and Project Proponent. The representatives of State Government of Rajasthan were also present during the meeting. Based on the detailed deliberations and discussions on the information submitted by the State Government of Rajasthan/Project Proponent, the Committee **deferred** the proposal and suggested that the proposal can only be considered after submission of following information: -

- (i) 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.
- (ii) The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what lateral and depth extents the material will be excavated. Thus, 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.
- (iii) 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, chianages 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.
- (iv) 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 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.
- (v) 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.
- (vi) 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.
- (vii) 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.

- (viii) 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 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.
- (ix) PP shall submit the compliances as per the Ministry's Office Memorandum No.3- 50/2017-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."

17. In response to above deliberation and ADS raised in the minutes of the EAC meeting held during 30th May, 2018 to 31st May, 2018, PP uploaded the following details on 25th January, 2020

- (i) Replenishment Study Report (Based on Topographical Survey)
- (ii) District Survey Report (Tonk District Mineral Survey Report)

18. The ministry observed that the information provided by the PP is inadequate to the ADS sought by EAC and requested PP on 13.02.2020 to submit the complete information online on PARIVESH portal.

19. The PP then replied to the ADS on 03.03.2020 and uploaded the letter vide Letter No. Adm/Jpr/Env/Bajri/2020/ dated 03.02.2020 issued from the Office of Additional Director Mines, Jaipur, DMG, Gov. of Rajasthan directed to the Director, IA Division, MoEF&CC, New Delhi providing the information w.r.t. Ministry's letter dated 05.09.2019 and EAC MoM dated 8th January, 2018 and 30-31st May, 2018. PP has further provided the following compliance:

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 the EIA/EMP report along with ToR compliance and other mitigation measures has already submitted.
2)	Details of Scientific Replenishment Study report needs to be presented wither other requisite information.	Details of Scientific Replenishment Study have already submitted.
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	DMG, State Govt. submitted demarcated river stretch through latitude and longitudes (out of total lease) where river sand / Bajri mining can be permitted

	permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department	based on available reserves and original ground level(OGL) at each cross-section in consultation with irrigation department. PP has submitted 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 in future for calculation of replenishment amount/rate.
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	PP has submitted that Affidavit will be submit during presentation.
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	State govt. of Rajasthan not regulated the mine as mining operation not performed in compliance with the order of Honorable supreme court. Thus leveled of cross-section not made before the onset of 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) in line with provisions made in Ministry's notification dated 15.01.2016 is Enclosed by the PP.
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.	The lease is valid as per RMMCR 2017 Rule 9(4) is reproduced as "period of lease may be extended equal to the period for which Mines remained closed (Dies-non) due to any court order. The LOI issued by the state Govt. is valid as per the Honorable Supreme Court order dated 10/05.2019 & 6.12.2019 vide letter no. ADM/Jpr/Bajri/2020/68 dated 3.02.2020
9)	The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what lateral and depth extents the material will be excavated. Thus, 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	Plan & Section clearly marking the lateral and depth extents of present ground profile at individual sections the same is verified/Approved by State Mines & Geology Department, Govt. of Rajasthan. (Enclosed by PP)

	Mines and Geology Department, Govt. of Rajasthan	
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, 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.	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. Annexure:6 (Specific Gravity Report) 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. The same has been verified by State Department of Mines & Geology. A composite plan mentioning the above proposed excavation zone for the entire Mine Lease area also attached as DRG No.-5 of replenishment report (Enclosed by PP). A plan clearly showing the area to be put under excavation and no excavation zones is given at DRG No.-5 KML files (Google Image) of replenishment report of lateral extents of excavation and no excavation zone within ML also given as Plate No.-1 of replenishment Report. report (Enclosed by PP)
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	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)

	Rajasthan Minor Mineral Concession Rules and other competent authority.	
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.	A field Book showing the date (period) of Survey, The model Number & detail of the instruments used. Field recordings and observations alongwith name, Signature and contacts details of the Survey mentioned and recorded in the field book (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 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	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 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 (Enclosed by PP)

	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.	
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 that affidavit will be submitted during presentation.

20. The EAC deliberated during the 16th EAC held on 6th May, 2020 on the submissions made by the project proponent and presentation made and made following observation:

- (i) *The Committee deliberated on the replenishment study report submitted by PP. The Consultant made a presentation on step wise step procedure followed for conducting the replenishment study. The amount proposed for production is 4.62 million TPA (as against 7.2 MTPA). The Committee observed that Replenishment Study Report submitted with EIA/EMP does not give any insight of safe extractable quantity as the blocked reserves in the safety zone is not provided in the report .*
- (ii) *On comparing the results of replenishment study conducted by CMPDI in 2017 which is based on the Meyer-Peter's equation and by OMTTC which is based on pre & post monsoon dated, the Committee found that there is a huge variation in the quantity of material deposited.*
- (iii) *The Committee also observed that there is difference in the mining area as per LOI (1667.78 Ha) and demarcated by DMG (256.645 Ha). The Committee discuss this issue with Shri B.S. Soda, Additional Director (Mines), Jaipur and Nodal Officer from the State Government of Rajasthan. He informed that after Judgment dated 27.02.2012 of Hon'ble Supreme Court in the matter of Deepak Kumar vs State of Haryana & Ors, the State Govt. of Rajasthan has issued LoI for the mining leases of larger area. He also informed that based on the EAC meeting held during 8.01.2018 the State Govt. identified the area where mining can be permitted and which comes out to be 256.645 Ha based on the conditions prevailing at that time.*
- (iv) *The Committee also observed that in the replenishment study report mineable mineral was calculated and impact on traffic density was covered. But it is not clear from the study report that area which comes under no mining zone (blocked area) and the reserves which is blocked in this area. Due to this it is difficult to ascertain that what would be safe extractable volume, depth and tonnage.*

- (v) *The Committee also observed that there is a difference in specific gravity as reported in two study reports viz. CMPDI & OMT. The Committee also discussed this issue with Shri B.S. Soda, Additional Director (Mines), Jaipur and Nodal Officer from the State Government of Rajasthan who confirmed that specific gravity may be considered as 2.54 tonne/m³.*
- (vi) *The Member Secretary informed the Committee that Ministry has received a representation on 4.05.2020 from Bajri Mining Lease Holders Association wherein it was requested for mechanized mining, mining in night hours and considering the proposal based on the recommendation already made by EAC. One of the PP also reiterated the same by addressing the EAC and informed the Committee there is sufficient material available for mining and requested for grant of EC.*
- (vii) *The Committee considered the request of the Member of the Association at the same time is also of the view that the Hon'ble Supreme Court in its order dated 2.08.2018 mentioned that "124. We are not in agreement with learned counsel for the mining lease holders. There is no doubt that the grant of an EC cannot be taken as a mechanical exercise. It can only be granted after due diligence and reasonable care since damage to the environment can have a long term impact.". Further, EAC is of the view that "In another judgment in Secretary, Kerala State Coastal Management Authority v. DLF Universal Ltd., the Apex Court discussed about the procedure of deemed environmental clearance and held that not to be followed in future, since obtaining of prior environmental clearance is mandatory, irrespective of wording in Para 8(2) of EIA 2006 Notification." So, in the instant case the decision can be only be taken after examining the information & data submitted by the PP.*
- (viii) *The Member Secretary also informed the Committee that Ministry also received a representation from Sr. Advocate of Hon'ble Supreme Court against the Sand Mining Proposals from the State of Rajasthan wherein inter-alia the issues raised is regarding illegal mining, violation of Common Cause Judgment dated 2.08.2017 and request for not considering these proposals. The Chairman is of the view that complaint may be forwarded to all the members so that issues mentioned therein may be addressed and at the same time asked the Member Secretary to sought desired information from PP/State Government for the same.*
- (ix) *The Committee also felt that complete document is not available online and Ministry may ask PP to upload the same for further appraisal and public viewing. In case PP faces any issue regarding size restriction then same may be informed to Director NIC, MoEF&CC and Member Secretary, so as to ensure that all the information made online.*

21. Based on the discussion held on 6th May, 2020 and document submitted, the Committee **deferred** the proposals for want of following information from the PP & State Government. 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, therefore to expedite the process, a Special Meeting may be conducted for the Sand Mining proposal from the State of Rajasthan after receipt of information from PP.

- (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.*

- (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.*

22. In response to the above deliberation made by the EAC and the requisite information sought, **PP vide its letter dated 30.05.2020 submitted the information/clarification as follows:**

Sl.	Information/ Clarification	Compliance
1)	<p>In the replenishment study report details such as area under 7.5meters 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.</p>	<p>I. Lease Area- 1667.78 Hact.</p> <ul style="list-style-type: none"> • Area under 7.5meters Statutory is- 58.59Hact. • Area under ¼ width of the river- 208.026Hact. • Area under ¾ width of the river- 1430.459Hact. <p>II. (Stretch-I) Demarcated Area- 131.80 Hact.</p> <ul style="list-style-type: none"> • Area under 7.5meters Statutory Barrier- Nil • Area under ¼ Width of the River- 32.950 Ha. • Area under ¾ Width of the River- 98.850 Ha. • Reserve Available- 19,16,833.49 Tonnes • Reserve Block in 7.5meter area- Nil • Reserve Block in ¼th Width of River- 3,73,367.0285Tonnes <p>II. (Stretch-II) Demarcated Area- 114.8381 Hact.</p> <ul style="list-style-type: none"> • Area under 7.5meters Statutory Barrier- Nil • Area under ¼ Width of the River- 28.709 Ha. • Area under ¾ Width of the River- 86.1285 Ha. • Reserve Available- 17,07,264.137 Tonnes • Reserve Block in 7.5meter area- Nil • Reserve Block in ¼th Width of River- 2,56,664.909 Tonnes <p>PP has submitted Plan & Section attached as Annexure-1 to the letter.</p> <p>Safe extractable volume and tonnage determined after deducting the blocked reserve.</p> <p>Geological Reserve is 42, 54,129.556 tonne (PP has submitted the Estimation as AnnexureNo.-2 to the letter.)</p> <p>Mineable Reserve is 36,24,097.627 tonne (PP has submitted the Estimation as AnnexureNo.-3 to the letter.)</p> <p>Mineral Blocked in 1/4th of river bed is 6,30,031.9294 tonne in given as Annexure No.-3A to the letter by PP. The slice plan for Mining in the safe extractable Zone drawn is given in Annexure 3B to the letter by PP. The Field Book for Pre & Post is given as Annexure No. - 4 & 5 to the letter by PP.</p>

		Replenishment Study report is enclosed as Annexure No.20 to the letter by PP																								
2)	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 ordemarcated area needs to be provided.	<p>The detail of the area to be utilized as per Approved mining plan is 666.55 Hact. Area under statutory barrier 48.4 Hact. Thus area not to be utilized is 1667.78 Hact. Enclosed as Annexure No.-5A to the letter by PP.</p> <p>Area Demarcated by Department of Mines & Geology comes under-utilized zone Enclosed as Annexure-6 to the letter by PP.</p> <p>The area required under Mining will be same as approved in the Mining Plan. The justification is given as Annexure No.-7 to the letter by PP. There is no prohibited area within the LOI area/demarcated area.</p>																								
3)	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.	<p>Mining is proposed in the small area where mining will be done as per condition of environment clearance, sustainable Sand Mining Guideline 2016. Environment & Monitoring Guideline for Sand Mining and RMMCR, 2017. To curb the illegal Mining in the remaining area. There are Eight entry point (Roads) from where river can be approached. Therefore Eight numbers of night vision camera will be installed and data will be made available to state government. Apart from this the Project Proponent takes the responsibility that no illegal Mining will be allowed/ done for remaining area. The budget required to curb the illegal Mining will be asfollows:-</p> <p>Budget for Surveillance equipment</p> <table border="1"> <tr> <td>i.</td> <td>Transport Permit</td> <td>2.00 Lacs</td> </tr> <tr> <td>ii.</td> <td>CCTV Camera</td> <td>5.00 Lacs</td> </tr> <tr> <td>iii.</td> <td>Weight bridge</td> <td>35.00 Lacs</td> </tr> <tr> <td>iv.</td> <td>Personal Computer with power backup</td> <td>2 .00Lacs</td> </tr> <tr> <td>v.</td> <td>Mobile Application Barcode Scanner</td> <td>1.50 Lacs</td> </tr> <tr> <td>vi.</td> <td>Radio Frequency identification tags (RFID) and Global PositioningSystem (GPS) tracking</td> <td>5.00 Lacs</td> </tr> <tr> <td>vii.</td> <td>Annual audit of each lease</td> <td>5.00 Lacs</td> </tr> <tr> <td>viii</td> <td>Security Guard</td> <td>57.6 Lacs</td> </tr> </table>	i.	Transport Permit	2.00 Lacs	ii.	CCTV Camera	5.00 Lacs	iii.	Weight bridge	35.00 Lacs	iv.	Personal Computer with power backup	2 .00Lacs	v.	Mobile Application Barcode Scanner	1.50 Lacs	vi.	Radio Frequency identification tags (RFID) and Global PositioningSystem (GPS) tracking	5.00 Lacs	vii.	Annual audit of each lease	5.00 Lacs	viii	Security Guard	57.6 Lacs
i.	Transport Permit	2.00 Lacs																								
ii.	CCTV Camera	5.00 Lacs																								
iii.	Weight bridge	35.00 Lacs																								
iv.	Personal Computer with power backup	2 .00Lacs																								
v.	Mobile Application Barcode Scanner	1.50 Lacs																								
vi.	Radio Frequency identification tags (RFID) and Global PositioningSystem (GPS) tracking	5.00 Lacs																								
vii.	Annual audit of each lease	5.00 Lacs																								
viii	Security Guard	57.6 Lacs																								

		Total	113.1 Lacs
		Compassion between original & proposed & Current Proposed	
		Sl.	Current Proposed Stretch –I & II
		Details	Original Proposed
		1	246.638 Ha.
		2	42,54,12 9.5 56 MT
		3	36,24,09 7.6 27 MT
		4	27.00 Lacs
		5	70.00 Lacs
		6	61 KLD
4)	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.	<p>The compliance of ToR where in certificate is required for involvement of no forest land in given as Annexure-8 to the letter by PP. Distance from the protected area is given in Annexure-9 to the letter by PP. Authenticated list of Schedule I Species and proof of its submission to Chief Wildlife Warden is given in Annexure no.-10 to the letter by PP. It is ensured that annexure to EIA Report and other documents submitted to the ministry uploaded online on PARIEVSH Portal for public viewing.</p>	
5)	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.	<p>After from the State Government that there is no violation of Common Cause Judgment dated 2.08.2017 in this matter is given as Annexure no. 11 to the letter by PP. A certificate that then is no production before the SC Order dated 25.11.2013 & after SC Order dated 16.11.2017 is given as annexure no.12 to the letter by PP. Undertaking in this regarding is also given in annexure no.13 to the letter by PP.</p>	
6)	The PP needs to submit	Time-bound, activity-wise action plan	

	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 alongwith details of manpower and cost.	for EMP, Occupational Health, Planation, and CER along with the budgetary provision is given in annexure No.14 to the letter by PP. Along with Environmental Management Cell to be established for implementation of EMP needs to be submitted along with details of manpower andcost.
7)	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.	Impact of the transportation of mineral on local transport infrastructure averred and found to be in excellent. There is a 12.71 Km Kacha road in east direction. No habitation/Villages located around this Kacha road. The Width of Road is about 6 mtr. Considering 20 Tonnes capacity and 240 days working about 56 trucks will ply on thisKacha Road. A Budget of Rs. 36.55 Lacs per annum has been proposed for maintenance of 12.71 km Kacha road and water will be sprinkled twice daily and plantation is also proposed on both side of Kacha Road. Around 8473 Trees will be planted on the both side. For these Rs.3.00 lacs for Dust Suppression and Rs.3.00 Lacs for plantation has been proposed in EMP project. Transportation map in Attached as Annexure No.15 to the letter by PP.
8)	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 proposedcompensation details.	There no proposal for utilization of land outside the mining lease for transportation
9)	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 watertanker etc. needs to be mentioned in EMP.	Requirement of water re-estimate for plantation dust suppression and domestic use. The cost of water tanker is Rs. 900 per tanker (Enclosed as Annexure No.-16 to the letter by PP.)
10)	PP needs to confirm that is there any other homogeneous mining lease within 500 meters of this lease and forming cluster.	A certificate that there is no homogeneous Mining lease within 500 meters of this lease and no forming of cluster is given as Annexureno-17 to the letter by PP.

	If, yes details of the same needs to be provided.	
1 1	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.	After compliance of Mining O.M. No. J- 11013/41/2006-IA. II(I) dated 17.03.2010 is given as annexure no.18 to the letter by PP
1 2	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.	The statues of the court cases pertaining to issue of grant of EC to present proposal, grant of LoI, illegal mining by PP is given by as annexure no.- 19 to the letter by PP.

23. The proposal was placed again in the Special EAC scheduled on 12th June, 2020 wherein the proposal was deferred as the project proponent did not attend the meeting. The proposal is now placed in the 19th EAC Meeting held during 22nd – 24th July, 2020.

24. The PP has submitted the Letter of Intent (LOI) w.r.t. grant of mining lease for minor mineral Bajri over an area of 1667.78 ha issued by the Joint Secretary, Department of Mines and Geology, Government of Rajasthan vide letter no. Group-2/ 2073 dated 26.02.2013, for the period of five years' subject to fulfillment of following conditions within one year.

- a. Mining plan prepared and to be approved by competent to be submitted.
- b. Environmental Clearance from the Ministry of Environment and Forests, Government of India to be submitted.
- c. Affidavit for bank guaranty as per rule 37(J) to be submitted.

25. Project proponent has further submitted that in compliance of above condition (b) PP applied for extension of time validity vide letter dated 28.03.2014 requesting the State Government **"to extend the period for submission of the EC letter for the period of 1 year."** PP has submitted that the same is under process.

26. The Committee observed that the EAC in its minutes of meeting held during 30.05.2018 inter-alia mentioned that, *"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,"*

27. PP in its reply submitted on 03.03.2020 mentioned that "the lease is valid as per RMMCR 2017 Rule 9(4) is reproduced as "period of lease may be extended equal to the period for which Mines remained closed (Dies-non) due to any court order. The LOI issued by the state Govt. is valid as per the Honorable Supreme Court order dated 10.05.2019 & 06.12.2019." vide letter no. ADM/JPR/Bajri/2020/68 Dated:- 03.02.2020.

28. The PP has submitted that Mining Plan & Progressive Mine Closure Plan has been approved by Government of Rajasthan, SME, Jaipur Region, Jaipur (Rajasthan) vide their letter no. SME/JP/MP/352/13 dated 10th July 2013.

29. Committee previously asked that “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 unutilized 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.”

30. The PP in its reply submitted on 02.06.2020 mentioned that “The detail of the area to be utilized as per Approved mining plan is 824.00 Hact. Area under statutory barrier 58.59 Hact. Thus area not to be utilized is 843.78 Hact. Enclosed as Annexure No.-5A to the letter by PP. Area Demarcated by Department of Mines & Geology comes under-utilized zone Enclosed as Annexure-6 to the letter by PP. The area required under Mining will be same as approved in the Mining Plan. The justification is given as Annexure No.-7 to the letter by PP. There is no prohibited area within the LOI area/demarcated area.”

31. As it appears from the submission that large area remains un-utilized the Committee previously asked the PP that “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.”

32. The PP in its reply dated 30.05.2020 submitted that the “Mining is proposed in the small area where mining will be done as per condition of environment clearance, sustainable Sand Mining Guidelines 2016. Environment & Monitoring Guidelines for Sand Mining and RMMCR, 2017. To curb the illegal Mining in the remaining area. There are eight entry point (Roads) from where river can be approached. Therefore eight numbers of night vision camera will be installed and data will be made available to state government. Apart from this the Project Proponent takes the responsibility that no illegal Mining will be allowed/ done for remaining area. The budget required to curb the illegal Mining will be as follows:-

33. Budget for Surveillance equipment: i) Transport Permit (Rs 2.0 Lakh), ii) CCTV Camera (Rs 5 Lakh), iii) Weigh bridge (Rs 35 Lakh), iv) Personal Computer with power backup (Rs 2.0 Lakh), v) Mobile Application Barcode Scanner (Rs 1.5 Lakh), vi) Radio Frequency identification tags (RFID) and Global Positioning System(GPS) tracking (Rs 5.0 Lakh), v) Annual audit of each lease (Rs 5.0 Lakh), and vi) Security Guard (Rs 57.6 Lakh).

34. Compassion between original & proposed & Current Proposed

Sl. No.	Details	Original Proposed	Current Proposed Stretch -I & II
1	Mining Area	1667.78 Ha.	246.638 Ha.
2	Reserve	104.24 Million Tonnes	42,54,129.556 Tonnes
3	Production	7.2 Million Tonnes	36,24,097.627 Tonnes
4	EMP Cost	15.00 Lacs	27.00 Lacs
5	CSR /CER Cost	60.00 Lacs	70.00 Lacs
6	Water requirement	100 KLD	61 KLD

Note: The Committee is of the view that policy of granting large mining area tehsil wise is not feasible from the environmental perspective and also blocks the mineral

resource, lead to shortage of supply of the sand in the region and loss of revenue to State Government. The State Government may look into the polices and grant only that much area which is sufficient for the said production or as per demand of the sand in the State.

35. The Proponent has submitted that Mining will be done by Opencast Manual cum Semi-Mechanized Mining will be done (No Drilling and Blasting). Mining will be done within the river-bed for collection of Bajri. It will be carried out upto a maximum depth of 3 m from surface of bajri deposit and not less than one meter above water level of the River channel whichever is reached earlier. Bench height (Strip)/Total will be 0.5 m / 2m. Mining will be done in Three Blocks namely Stretch-I & Stretch-II. Conventionally the river-bed mining is carried-out by Manual/semi mechanized method with Excavators & Loaders (as & when required) & Tippers and the same will be practiced here. The loading of Bajri will be done by hydraulic loaders of 0.3 Cu. Meter to 1.1 Cu. Meter bucket capacity. The loading will also done manually. Loaders will be deployed at different places for the same. Collection of bajri will be approx. 28,000 tonnes be per day. Transportation of Bajri from river bed face to consumers will be by trucks/ tractor trolleys. Collection of bajri will be approx. 28,000 tonnes be per day. Transportation of bajri from river bed face to consumers will be by trucks/ tractor trolleys through NH-12. The truck/ tractor owners will purchase bajri from the face. Total around 1500 trucks will be engaged per day. On the basis of 20 tonne capacity of trucks, approx. The present road network is good enough to bear the projected traffic load. However, maintenance & strengthening of the roads will be done as and when required. Total mineable reserves in the proved and probable category have been estimated at 104.24 million tonnes. PP informed that mining will be done as per the MoEF&CC Guidelines issued by Working Group in March, 2010 and Rajasthan State Government Policy Notification No. GSR 27 dated 21 June, 2012 in respect of mining of Bajri. Mining will be done as per Approved Mining Plan & Progressive Mine Closure Plan. No waste will be generated from the mining activities. There will not be any permanent change in land use as mining activity involves collection of deposited bajri.

36. The Committee observed that EAC in its meeting held during 8.01.2018, *inter alia*, mentioned that “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”. In compliance to this condition the PP also submitted an undertaking on non-judicial stamp paper of Rs 100 bearing No- AX 882050 wherein *inter-alia* it has mentioned that PP shall use only scraper for mining and no excavator & JCB will not be used for mining.

37. The Committee observed that in last EAC meeting “*The Member Secretary informed the Committee that Ministry has received a representation on 4.05.2020 from Bajri Mining Lease Holders Association wherein it was requested for mechanized mining, mining in night hours and considering the proposal based on the recommendation already made by EAC. One of the PP also reiterated the same by addressing the EAC and informed the Committee there is sufficient material available for mining and requested for grant of EC.*”

38. PP submitted that Ground Water will not be intersected during mining activities. The mineral formation does not contain any harmful element, which could percolate into the ground and pollute the ground water. Total water requirement for the project will be 100 KLD which will be sourced from nearby villages. The water requirement includes 60 KLD for Dust Suppression, 20 KLD for Drinking and 20 KLD for Plantation. Waste water will not be generated from the mining activities. Trucks tyres will be washed before going into the River/nallah. Domestic waste water generated from toilet will be disposed in soak pits via septic tank.

40. *The Committee previously asked that 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.*

41. The PP in its reply submitted on 02.06.2020 re-estimated the water requirement and it has mentioned that total water requirement will be 61 KLD (3.38 KLD for domestic use, 57 KLD for dust suppression and 0.59 KLD for plantation). The cost of water tanker is Rs. 900 per tanker

42. The PP has submitted that it is proposed to develop plantation of about 28500 saplings over area of 25 ha (@1500 plants/ha approx.) over a period of 5 year [1st year – 6000 trees (10 ha) and 2nd , 3rd , 4th and 5th year – 4500 plants (3 ha) each]. While considering the above aspects due care will be taken for selecting the suitable characteristics plant species such as fast growing, locally suitable plant species, resistant to specific pollutant and those which would maintain the regional ecological balance, soil and hydrological conditions. In this river bed mining project plantation will be developed along the approach roads and sides of river bank. Native species will be planted as per the CPCB guidelines and in consultation with local forest department.

43. The Committee in the last EAC meeting asked that *“The PP needs to submit time-bound, activity-wise action plan for EMP, Occupational Health, Plantation, 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”.*

44. PP in its reply dated 30.05.2020 submitted that Extensive plantation on both side of Approach road in 3 layer will increase the floral diversity of the area. Sufficient availability of Water will be ensured for green belt. The green belt area once marked will not be disturbed during life of mine. The lease area is devoid of any vegetation. Hence, It is proposed to develop social forestry in the approach villages at public places like School, PHC's, Panchayat Bhawan with due permission from Panchayat And in consultation with Forest Department/ local authorities. Total of about 5,000 trees of native species along with some fruit bearing and medicinal trees will be planted at various places in a span of five Years. PP also earmarked a budget of Rs 8.0 Lakhs for the same.

45. The PP submitted that the proposed area is a part of Gair Mumkin Nadi and nalla as per revenue record. No forest land is involved. In this regard, application for confirmation of involvement of forest land from State Forest Department has been submitted vide letter dated 19.06.2014 and the same is under process. PP has submitted that there is no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Wildlife Corridors, Migratory Routes for Birds, within 10 km radius. Three Reserved Forests and Eight Protected Forests exist in the study area.

46. *The Committee in the previous meeting asked the PP to submit the certificate w.r.t involvement of forest area in the mining lease.*

47. The PP in its reply dated 30.05.2020 submitted the letter No F()Survey/FCA/UWS/9691 dated 11.12.2014 issued by DCF, Tonk wherein it has mentioned that there is no National Park, Sanctuary, Biosphere Reserve, Wildlife Corridor, Tiger/Elephant Reserve (existing as well as proposed) within 10 km radius of the mine lease. PP has also submitted list of RF/PF and its distance from the mine lease area. The PP has provided the letter submitted by them to The Chief Wildlife Warden vide letter dated 03.09.2014 for authentication of map showing location of National Park, Sanctuary, Biosphere Reserve, Wildlife Corridor, Tiger/Elephant Reserve (existing as well as proposed) within 10 km radius of the mine lease.

48. The PP submitted that Detailed Biological study for the study area (core zone & buffer zone) has been conducted. Letter reg. authentication of list of Flora & Fauna for core & buffer zone has been submitted to the forest department vide letter dated 19.06.2014 which is under process. PP has prepared the conservation plan and the total budget for biodiversity conservation earmarked is Rs. 27.80 Lakhs spread over 5 years that will be expenditures in various activities which include 1) plantation activities on project study area in core and Buffer zone, their maintenance and wildlife monitoring; 2) Conservation of Schedule -1 and II Species including Peafowl, migratory birds, Indian grey mongoose and Naja Naja (Kobra). PP informed that mine lease does not fall in Aravalli hill range and submitted a certificate from the Department of Mines and Geology, State Govt. of Rajasthan vide letter dated 13th Oct, 2014.

49. In response to ADS raised in the EAC meeting held during December 10-11, 2014, PP vide its letter dated 12.01.2015 submitted that there is one Schedule-I species found in the study area. PP has prepared the Conservation Plan along with budgetary provisions and submitted the Conservation Plan to the Chief Wildlife Warden which is under approval.

50. The District Survey Report as per the MoEFCC Notification dated 15.01.2016 has been submitted by Government of Rajasthan. Also in response to EAC deliberation and ADS raised in the minutes of the EAC meeting held during 30th May, 2018 to 31st May, 2018, PP submitted the District Survey Report (Tonk District Mineral Survey Report).

51. The PP has submitted that Baseline data for ambient air quality (PM₁₀, PM_{2.5}, SO₂ & NO₂), water quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season, 2013 (Oct.-Dec., 2013). Site-specific micro-meteorological (hourly) data has been recorded. The pre-dominant wind direction is from East. Location of the monitoring stations was selected keeping in view the predominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area. One location has been selected in downwind direction at 500 m from the lease boundary. EIA contains the mineralogical composition of PM₁₀. The baseline concentration monitored during the study period shows the Ambient Air Quality is within the specified standards by CPCB. Incremental concentration of pollutants when added to baseline concentrations to calculate the cumulative concentrations shows the ambient air quality shall remain within the specified NAAQS even after the commencement of project activity. The noise levels in the study area found to be well within the prescribed limits as prescribed by the CPCB. A review of the chemical analysis of ground water samples reveals that there is not much variation in chemical composition of water samples from hand pump & bore wells from nearby villages. Samples collected from identified locations indicate pH value ranging from 6.92 to 8.68 which shows that the soil is slightly alkaline in nature. Organic Matter ranges from 0.54% to 0.81% in the soil samples. Nitrogen is found to be in better amount as it ranges from 123.76 to 174.17 kg/ha and Phosphorous in less amount i.e. from 82.16 to 198.47 kg/ha, whereas the Potassium is found to be ranging from 123.5 to 367.44 kg/ha. No biological species, recorded during the study period, falls under any category of threatened species according to IUCN Red Data List of India. PP has thus submitted that there will be no significant pollution of air, water, soil and noise. Regular monitoring of all the components of environment will be done. Increased social welfare measures taken by the company will bring development in the near-by villages.

52. In response to ADS raised in the EAC meeting held during December 10-11, 2014, PP vide its letter dated 12.01.2015 submitted the disaster management plan and flood control mitigation measures. The Committee deliberated in the EAC Meeting held during May 27-29, 2015 and was of the view that the Plan is adequate.

53. Further, in response to EAC deliberation and ADS raised in the minutes of the EAC meeting held during 30th May, 2018 to 31st May, 2018, PP submitted the Replenishment Study Report (Based on Topographical Survey).

54. *The Committee in the previous meeting asked that i) 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 and ii) 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.*

55. PP in its reply submitted on 02.06.2020 mentioned that the Impact of the transportation of mineral on local transport infrastructure averred and found to be in excellent. There is a 12.71 Km Kacha road in east direction. No habitation/Villages located around this Kacha road. The Width of Road is about 6 mtr. Considering 20 Tonnes capacity and 240 days working about 56 trucks will ply on this Kacha Road. A Budget of Rs. 36.55 Lacs per annum has been proposed for maintenance of 12.71 km Kacha road and water will be sprinkled twice daily and plantation is also proposed on both side of Kacha Road. Around 8473 Trees will be planted on the both side. For these Rs.3.00 lacs for Dust Suppression and Rs.3.00 Lacs for plantation has been proposed in EMP project. PP has also submitted the transportation map.

56. The Project Proponent reported that Public hearing was held on 18.06.2014 (as prescribed in Public Notice of Rajasthan State Pollution Control Board, Kishangarh) at Gram Panchayat Bhawan, Village Banthali, Tehsil Deoli, District Tonk, Jaipur (Rajasthan) in presence of Shri P.S Naaga, Additional District Collector (Administration), (Representative of District Collector), Tonk and Shri R. K. Mandawat, Regional Officer, Rajasthan State Pollution Control Board, Kishangarh in respect of Environmental Clearance for Proposed Bajri Mining Lease (Area-1667.78 ha), production capacity 7.2 million tonnes per annum from River Banas At Villages: Amla, Banthali, Jalseena, Jalari, Jagatya, Nandpura, Rajmahal, Satwara, Santhali; Tehsil- Deoli; District: Tonk (Rajasthan). The advertisement for public hearing was published on 18.05.2014 in newspapers – ‘Hindustan Times’ and “Danik Bhaskar”. The issues raised during the hearing were mainly related to water management, socio-economic development (livelihood), employment, dust generation due to transportation and land related issues. PP has developed an action plan to implement the commitments made during Public Hearing.

57. *The Committee had observed during the 10th-11th December, 2014 EAC that Public made representation with regard to Water management, Socio- economic development, Employment, Transportation, pollution, damage of fertile land, water level degradation, fluoride concentration in water; and Time- bound Action Plan along with the budgetary allocation on the issues raised during the Public Hearing. In view of the above, the Committee was of the view that the PP has to make proper action plan on the issues raised during the PH.*

58. ThePP vide its letter dated 12.01.2015, submitted the following information/clarifications:- With regard to proper Action Plan on the issues raised during the PH along with budgetary provisions, the PP has submitted the revised the Action Plan on the issues raised during PH and allocated Rs. 60 Lakhs for socio-economic development; Rs. 15 Lakhs has been earmarked towards Environment Protection Measures and Rs 6 Lakhs per annum towards recurring expenses. PP has also submitted that as per Rajasthan State Pollution Control Board, vide letter dated 31.07.2014, there are two representations were received. The Committee deliberated and is of the view that the revised Action Plan on the issue raised during PH is adequate.

59. PP has earmarked Rs.60 Lakhs have been towards CSR activities.

60. The Committee previously asked the PP to submit the time bound action plan and budget for CER. The PP in its reply submitted on 02.06.2020 mentioned that budget earmarked for CER/CSR is Rs 70 Lakh which includes i) Rs 8.0 Lakh for Health checkup camps for villagers (every six months), ii) Rs 6.0 Lakh for Surveillance Programme of the workers (annually), iii) Rs 7.0 Lakh for assistance to Local Schools, Scholarships to Students (annually) , iv) Rs 5.0 Lakh for Drinking Water Facilities [Financial aid will be provided to resume the water supply by Bisalpur Dam through existing pipeline in villages Thikariya. Water supply through tanker in villages Thikariya and Chuli. Construction and maintenance of water tank in villages Thikariya and Chuli. Water filter will be provided in the village Thikriya & Chuli] (annually), v) Rs 6.0 Lakh for Construction and Maintenance of Drainage system in the Village Thikariya with the help of Village Panchyat (annually), vi) Rs 8.0 Lakh construction of Rain water harvesting structure, vii) Rs 6.0 Lakh for Vocational Training to Person for Income Generation (every six months), viii) Rs 5.0 Lakh for Women Empowerment Programme (annually), ix) Rs 8.0 Lakh for Construction and maintenance of toilets for boys/girls in Government Schools (Once during the project Operation phase), x) Rs. 5 Lakh for Sanitation and Cleanliness Programme (annually) and xi) Rs. 6 Lakh for Installations fluoride removal plant (Once during the project Operation phase).

61. The PP reported that the proposed area is a part of Gair Mumkin Nadi and nalla as per revenue record. R&R Plan is not applicable.

62. Environmental Management Plan (EMP): The Project Proponent submitted that budgetary provision for Environmental Management Plan (EMP) is ₹ 15 Lakh (Capital) & ₹ 6 Lakhs (recurring/annum). This will include 1) Pollution Control [₹ 3.0 Lakh (Capital) & ₹ 1.0 Lakhs (recurring/annum)], 2) Pollution Monitoring [₹ 5.0 Lakh (Capital) & ₹ 2.5 Lakhs (recurring/annum)], 3) Occupational Health [₹ 2.0 Lakh (Capital) & ₹ 0.8 Lakhs (recurring/annum)], 4) Green Belt (Mine and Township) [₹ 3.0 Lakh (Capital) & ₹ 1.0 Lakhs (recurring/annum)], and 5) Others [₹ 2.0 Lakh (Capital) & ₹ 0.2 Lakhs (recurring/annum)].

63. The Committee previously asked the PP to submit the time bound action plan and budget for EMP. PP in its reply submitted on 02.06.2020 submitted the revised budget for EMP as Rs 17.0 Lakh which includes i) Rs 11.0 Lakh/annum for Environmental Pollution Monitoring i.e. Water, Air, soil & Noise etc. [Air Sample 12 Location 12x2x3500=84,000/-, Water Sample 8 Location 8x2x2500=40,000/-, Noise Sample 11 Location 11x2x2000= 44,000/-, Soil Sample 11 Location 11x2x2000= 44,000/-, Total cost of monitoring year wise Rs. 2,12,000/-; frequency of monitoring half yearly], ii) Rs 3.0 Lakh/annum for Dust Suppression (Water Sprinkling) (frequency daily); iii) Rs 2.0 Lakh for Environmental Awareness Programme (monthly), iv) Rs 2.0 Lakh for Occupational Health and Safety Mine worker (Health camps, training etc) and Rs 8.0 Lakh for Green Belt & plantation. PP also submitted that cost of water tanker is Rs 900/Tanker.

64. The PP has submitted that the working conditions in the mines are governed by the enactments of the Directorate General of Mines Safety (DGMS). As per the guidelines of the Mines Act, the management will take all necessary precautions. Normal sanitary facilities will be provided within the lease area. The major health concerning areas in riverbed mining includes dust & noise and hygiene. The management will carry out periodic health check up of workers. Following points will be taken care of during mine operation for assuring safety of workers i.e. Health Awareness Programmes and camps will be organized. The mine workers will be provided all necessary Personal Protective Equipment (Dust Masks & Boots) for their physical safe guard from dust & hygiene. The fresh employees when taken will be thoroughly medically examined under initial medical examination including chest X-ray, Bloodpressure & vision testing and thereafter during continuation of employment; the periodic medical examination will be conducted. Under initial vocational training, the workers will be given

training related to all safety and health aspects pertaining to their vocation and thereafter every quarter, special training courses/ Awareness programme for Malaria eradication, HIV and health effects on exposure to mineral dust will be organized for employed person as well as for nearby villagers. The Occupational Health Surveillance Programme will be carried out. Fresh water shall be made available near the working area for use by the workers any time. Water sprinkles will be provided for suppression of dust. All check-ups will be documented and updated on regular basis for occupation health and safety of the workers. The budgetary provision towards Occupational health has been made for ₹ 2.0 Lakh (Capital) & ₹ 0.8 Lakhs (recurring/annum).

65. In response to ADS raised in the EAC meeting held during December 10-11, 2014, PP vide its letter dated 12.01.2015 submitted the Action Plan for ensuring good occupational environment for mine workers. The Committee deliberated in the EAC Meeting held during May 27-29, 2015 and was of the view that the Plan is adequate.

66. *The Committee previously asked the PP to submit the time bound action plan and budget for Occupational Health Plan.* PP in its reply submitted on 02.06.2020 mentioned that for the Persons working in dusty area to be provided with protective Wears such as helmets, dust masks, ear muff Heat stroke continuous sitting driving vehicle ergonomic factor for backache Pain etc.; Regular water sprinkling at dust generating areas, Haul roads. Occupational health check-up of all workers working in mine, and pulmonary function test for workers working in dusty areas. A budget of Rs 2.0 Lakh is earmarked for occupational health plan.

67. PP submitted the that SLP(C) 34134/2013 AND SLP(C)10587/2019; SAW/739/2018 in the matter of STATE OF RAJASTHAN VS BAJRI LEASE/LOI WELFARE SOCIETY; CW/9836/2019 in the matter of BAJRI LEASE/LOI WELFARE SOCIETY VS STATE OF RAJASTHAN.

68. The committee observed that in the instant case as reported by PP and State Government the LOI issued by the state Govt. is valid as per the Hon'ble Supreme Court order dated 10.05.2019 & 06.12.2019. Although PP has provided the list of cases on various issues wherein the project proponent is a party.

69. The PP has submitted an undertaking by way of affidavit vide Certificate No. AX 926974 dated 30.05.2020 as per the Ministry's Office Memorandum No.350/2017-IA.III(Pt.), 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.

70. PP in the EIA report has given an undertaking dated 04.09.2014 that the conditions laid down in Terms of Reference prescribed by MoEF, New Delhi vide letter dated 14.10.2013 have been complied with, and the data submitted and the information presented in this report are factually correct. The Consultant in the EIA report has given an undertaking dated 08.09.2014 TORs prescribed by MoEF, New Delhi vide letter dated 14.10.2014 has been complied with and the data submitted are factually correct. Further, PP has given undertaking in EC Report that they hereby give undertaking that the data and information given in the application and enclosures are true to be best of their knowledge and belief and they are aware that if any part of the data and information found to be false or misleading at at any stage, the project will be rejected and clearance given, if any to the project will be revoked at their risk and cost.

71. Replenishment Study:

- (i) **Dendy Boltan formula** : The Ministry granted ToR vide letter no. J-1015/208/2013-IA.II (M) dated 14th October, 2013 wherein one the condition was for submission of detailed replenishment study. The PP in

EIA/EMP Report submitted some details in EIA/EMP Report. The EAC in its meeting held during 27-29 May 2015 Recommended the Proposal for environmental Clearance for mining of mineral bajri (Mines Mineral) with Proposed production Capacity 7.2 million Te (ROM). The EAC in its meeting held during 24 October 2016. The committee Recommended the following:- In case of Sand/Bajri Mining projects from the State of Rajasthan, Project Proponents shall first conduct a scientific replenishment study and submit the report before the EAC for further consideration of amount of production for mining of sand/bajri on yearly basis. Therefore, the Committee deferred all such sand/bajri mining proposals of State of Rajasthan. *mining proposals estimate replenishment rates based on theoretical Dendy-Boltan formula and not on actual replenishment studies. The Dendy Boltan formula is not very useful to estimate replenishment rates at a particular stretch of a river. Its application to cases such as those of Rajasthan, where river is not perennial, is even more problematic.* "In case of Sand/Bajri mining projects from the State of Rajasthan, Project Proponents shall first conduct a scientific replenishment study and submit the report before the EAC for further consideration of amount of production for mining of sand/bajari on yearly basis. Therefore, the Committee deferred all such sand/bajri mining proposals of State of Rajasthan."

- (ii) **Meyer-Peter's equation:** The PP did not submit the revised EIA/EMP Report. But based on the above meeting entrusted the task of replenishment study to CMPDI and submitted the same to MoEF&CC online on 27.04.2018. The Proposal was placed in EAC meeting held during 08.01.2018. The Committee observed that CMPDI conducted a replenishment study of the entire mining lease area during 2017 which is based on the Meyer-Peter's equation. The CMPDI after carrying out extensive field survey and data collection concluded the following for this mining lease

Lease Dimensions				
Area (Ha)	Average length (KM)	Avg effective width (KM)	Bed Slope	River
1667.78	36.10	0.260	1.2123	Banas

Estimated Bed Load (Tonnes/day)	Estimated deposition or replenishment (Tonnes/day)	Sediment Load Deposition per month (in Tonnes)	Annual Replenishment (in Tonnes)	*Estimated Annual Replenishment (in million m ³)
23590.13	18872.11	566163.28	1698489.86	1.21

*Specific gravity of sand = 1.4 tonne per m

*Estimates Reserve (in million m ³)	*Annual Production Capacity envisaged (as per mining plan in million m ³)	Estimated Annual replenishment (in million m ³)	Replenishment Status vis-à-vis planned production
23.65	4.73	1.21	Replenishment less than planned annual production

- a) As per the EIA/EMP Report the details of the geological & Mineable Reserves are as follows:

Geological Reserves Million Tonne	Mineable in MT	Annual Production (MTPA)	Life of Mine (Years)

--	104.24	7.2 MT	No Specific Life as the mineral is almost replenishable every year.
----	--------	--------	---

- b) In the EAC meeting held during 8.1.2018 the then EAC noted the submissions of the Consultant and observed that the present exercise is essentially an empirical attempt of estimating sand replenishment from Meyer's Peter equation. The Committee also enquired about the extent of over-estimation already included in the formula vis-a-vis the actual figures. M/s CMPDI submitted that Meyer Peter's equation takes into account an overestimation of 25-30% on conservative basis. The Committee thus observed that the estimations arrived at by M/s CMPDI in Para 4 are already overstated in comparison to actual figures. However, the Committee also noted the submissions of M/s CMPDI that the sand/ bajri existing in the river beds in State of Rajasthan are paleo sand deposits rather than annually replenished sand as the rainfall pattern is not regular in the state and therefore, does not lead to annual replenishment.
- c) In the EAC meeting held on 8.01.2018 the then Committee also interacted with the representatives of the State Government of Rajasthan and noted their submissions. The officials of State Government submitted that due to stoppage of river sand/ bajri mining in the State, many infrastructure projects (covering Government as well as Private) have come to a halt. Additionally, the State Government is also loosing revenue (royalty, license fee etc.). Further, being a mineral rich State, the said order has adversely affected the socio-economic situation w.r.t. loss of jobs/ livelihood etc.
- d) The then Committee made detailed deliberations and observed that the river sand mining proposals for the State of Rajasthan cannot be governed by annual river replenishment studies alone and there is a need for caution in sand/ bajri mining of these paleo deposits. The Committee also observed that M/s CMPDI has not presented its data in the Scientific Replenishment Study report as the same was accepted to be rough estimate and nonrepresentative of the actual replenishment status.
- e) The then Committee made detailed deliberations on the issues and noted that there is a requirement of identification of active mining area within leased river stretches and subsequent identification and preparation of cross section for assessing replenishment of sand in coming years. Hence, mining permission is technically required to be granted so as to conduct replenishment studies in future and demonstrate the same to State Govt. to regulate mining of paleo deposits in future. Accordingly, EAC recommended mining of river sand/ bajri to up to 25% capacity of the annual proposed production capacity subject to submission of information and undertaking. The Committee observed that 25% of annual proposed capacity for this project comes out to be 1.8 Lakh TPA (25% of 7.2 Lakh TPA).
- f) Based on the recommendations made by EAC in its meeting held during 8.01.2018 , the Ministry, vide letter dated 05.02.2018 has requested Department of Mines and Geology, Government of Rajasthan/Project Proponent to submit the above mentioned information. In this context, the Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted the information for 18 LOIs and as the information was technical in nature the proposal was placed before EAC in its meeting held during 30-31 May, 2018 wherein the State Government submitted the details of identified the mineable block of 256.64 Ha for this mining lease. The Committee deferred the proposal and sought requisite information with respect to validity of LoI and other details.
- g) PP in spite of submitting the requisite information as sought during 8.01.2018 & 30.05.2018 EAC meetings, decided for collection of baseline data w.r.t to level of riverbed pre-monsoon and post-monsoon for the year 2018. The PP submitted the replenishment study report on 25.01.2020 i.e. after the laps of almost 1.5 years. As complete information was not

uploaded an EDS was raised on 13.2.2020, the PP submitted the desired information on 03.03.2020 and the proposal was considered in EAC meeting held during 06.05.2020 wherein the Committee deferred the proposal for want of requisite information. PP submitted the information on 02.06.2020 and the proposal was considered in the EAC meeting held during 12.06.2020. The project proponent did not attend the meeting. Therefore, the proposal was deferred. The proposal is again considered in the EAC meeting held during 22.07.2020.

- h) The Committee observed that technical deliberation on feasibility of project for mining of 7.2 Lakh TPA was almost completed during 2015-16 but replenishment details submitted by PP was based on the Dandy and Bolton formula therefore Committee asked PP to submit the revised EIA/EMP. The PP did not submit the same. The issue thereafter remains is submission of replenishment study report and finalization of safe extractable quantity for this mining lease. The Committee observed that replenishment study for the entire mining lease area has already done by CMPDI and results of which shows that there is a replenishment of the mineral. Although, the said study was based on theoretical calculations but still it gives rough estimates about the replenishment of the mineral in the area.

iii) Replenishment Study based on Pre & Post Monsoon Data: The State Government demarcated the area for mining and PP has also conducted replenishment study based on pre-monsoon and post monsoon data of 2018 over an area which was identified by the State Government. In the EAC meeting held during 06.05.2020 the Committee observed that quantity of the mineral proposed to be excavated as per replenishment study report is 4.22 million TPA (as against 7.2 MTPA). The Committee observed that Replenishment Study Report submitted with EIA/EMP does not give any insight of safe extractable quantity as the blocked reserves in the safety zone is not provided in the report. 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. The PP in its reply submitted on 02.06.2020 inter-alia mentioned that out of total mining lease area of 1667.78 Ha the area under $\frac{3}{4}$ width of river is 1430.459 Ha, area under $\frac{1}{4}$ width of river is 208.026 Ha and area under 7.5 safety zone is 58.59 Ha. Further, the area demarcated by DMG for Stretch -I is 131.80 Ha out of this area falling under 7.5 statutory barrier is nil, area under $\frac{1}{4}$ width of the river is 32.950 Ha and area under $\frac{3}{4}$ width of the river is 98.850 Ha. The reserves blocked under $\frac{1}{4}$ th width of river is 3,73,367.0285 Tonne and Reserves available under $\frac{3}{4}$ width of the river is 19,16,833.49 Tonnes. The area demarcated by DMG for Stretch -II is 114.8381 Ha out of this area falling under 7.5 statutory barrier is nil, area under $\frac{1}{4}$ width of the river is 28.709 Ha and area under $\frac{3}{4}$ width of the river is 86.1285 Ha. The reserves blocked under $\frac{1}{4}$ th width of river is 2,56,664.909 Tonne and Reserves available under $\frac{3}{4}$ width of the river is 17,07,264.137 Tonnes.

Area of Mining: The PP also submitted that the extractable Replenished quantity per Hectare is about 19499 Tonne. So to achieve 7.2 Million Tonnes per annum the net area required will be 369.24 Hectare. So total net area required during the next five years will be $369.34 \times 3 = 1107.72$ ha. The area worked during 1st years and 2nd Year will be worked out in the 4th & 5th year respectively.

Depth of Mining: The Committee observed that as per mining plan the depth of mining is 3 meters. But the average deposition of mineral as per replenishment study is about 0.62 meters. The PP in the study report proposed a mining with slice of 1 meter. The Committee therefore restricts the depth of mining as 3 meter or water level whichever is less.

Method of Mining: As per approved mining plan light weight excavators will be deployed for extraction. Mineral will be loaded in trucks of 20 tonnes capacity trucks and equipment, earth movers will be on hire basis. During EAC meeting held on 8.01.2018 as the actual replenishment study was not available the Committee suggested use of scrapers and also asked for an undertaking from PP in this regard. But now as the replenishment study is available & as per request made by Bajri LOI Holder Association the Committee agreed for use of excavators having bucket capacity not more than 1.0 m³ and boom length not more than 3 meters for this project.

72. The Proponent submitted that **total project cost will be Rs. 1.0 Crore** and about 676 persons will be employed directly. Workers from nearby villages will be given preference. Indirect employment will also get generated due to the project.

73. The committee observed that the performance of EIA Consultant is very poor. The consultant not able to furnish the requisite information as per the requirement at one goes even after repeated suggestions. The committee advised to report QCI/NABET to take appropriate action on the consultant.

74. Based on the deliberations held during 10th-11th December, 2015; 27th – 29th May, 2015; 8th January, 2018; 30th – 31st May, 2018; 6th May, 2020; 12th June, 2020 and document submitted by the PP dated 31.10.2014; 12.01.2015; 27.04.2018; 25.01.2020; 03.03.2020; and 30.05.2020, the Committee **recommended** the proposal for production of **3.624 MTPA of Sand/Bajri from maximum area of 246.638 Ha (identified by the State Government) in 5 years out of 1667.78 Ha** lease are located at Amli, Banthali, Jalseena, Jaleri, Jagatya, Nandpura, Rajmahal, Satwara, Santhali; Tehsil- Deoli; District: Tonk, Rajasthan subject to the following specific conditions in addition to Standard EC conditions as per as per Ministry's O.M. No. 22-34/2018-IA.III dated 08.01.2019&16.01.2020 and also the relevant special conditions as per Sustainable Sand Mining Management Guidelines 2016:

- 1) Permissible Mining of River Bed Material (Sand/Bajri) shall be limited to 3.624 MTPA from an effective mineable area of 246.638 ha, with a maximum minable depth of 1 meter from the original ground level as reported in the replenishment study. The permissible minable material of 3.624 Million Ton will be valid till one year from the day of issuance of the EC.
- 2) For subsequent period, PP shall submit fresh annual replenishment study to MoEF&CC for amendment in EC for mineable quantity and maximum permission depth for mining based on the scientific findings of replenishment study. Such study shall be placed before EAC for appraisal for next three years to assess rate of deposition and accordingly, minable production capacity and depth can be prescribed based on trends analysis, provided it is found scientifically satisfactory by the EAC. The placing of the study report before EAC is mandatory for initial three years.
- 3) The project proponent shall take all measures for the surveillance as proposed by the PP. The status of implementation with documentary proof needs to be submitted to Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 4) Not more than 61 KLD water shall be used for this project. Water shall be sourced from legal suppliers and record of water supplier and trips shall be maintained on daily bases. At least 3 times day water shall be sprayed to avoid fugitive emission. The water tanker having mist generator system shall be used for conservation of water. PP shall submit the status report for implementation along with photograph to Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- 5) PP shall plant at least 28500 saplings of within a period of 2 years. The height of seedlings shall not be less than 2 meters. Species such as Azadirachta indica (Neem), Ailanthus excels (Ardu) Albizia lebbeck(Siris), Ficus religiosa (Peepal), Lasora (Cordia dicotoma), Dalbergia sissoo (Shisham), Tamarindus indica (Imli), Morus alba (Shahtoot), Ziziphus mauritiana (Ber), Syzygium cumini (Jamun), Mangifera indica (Mango), Diospyros melanoxylon (Tendu), Annona squamosal (Sitafal), Pithecelabium dulce etc.(Jungle jalebi). The Plantation shall be carried out along the road side, banks of river and public places under social forestry programme in consultation of local authorities. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 6) The conservation plan in consultation with the Forest Department shall be implemented and compliance of the same shall be submitted to Regional Office of MoEF&CC before 1st July of every year.
- 7) The PP shall implement the mitigation measure to control the impact due to transportation viz. Kaccha road of 12.71 Km, transportation of sand from villages having habitation should be avoided, regular water sprinkling (3 times a day) before transportation of mineral, plantation (not less than 8473 sapling having height of not less than 2 meters) on the both side of this road should be completed within 1 year , trucks shall not be overloaded, spillage of the mineral to be avoided, covered transportation. Implementation report with supporting documents & photographs before and after shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 8) The project Proponent shall implement the committed activities under Corporate Environment Responsibility and implementation report with supporting documents & photographs before and after shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 9) The project proponent shall implement all mitigative measures envisaged in the **Environmental Management Plan (EMP)** and committed during the presentation and subsequent submissions. The water shall be sourced from legal water supplier and record of the same needs to be maintained. In addition to this PP shall also keep a record of water spraying trips on daily basis. A separate Environment management cell (EMC) shall be created with suitable staff having relevant qualification in environment with supporting staff. Implementation report with supporting documents, test reports, geo-locations & photographs before and after and composition of EMC shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 10) PP shall implement the occupational health plan and provide personal protective equipment to all the workers (*helmets, dust masks, ear muffs*), provision of safe drinking water to workers, shelters for rest etc. In addition to this Occupational health check-up of all workers working in mine, and pulmonary function test for workers working in dusty areas. Implementation report with supporting documents & photographs before and after shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 11) The PP shall implement the conditions prescribed in **Enforcement & Monitoring Guidelines for Sand Mining 2020, as applicable for PP** and also SoP issued by the Rajasthan State Government for prevention of illegal river sand mining in the state. Implementation report with

supporting documents & photographs before and after shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

2.2 River Sand Mining with Production Capacity of 42 Lakh TPA Sand by M/s Shekhawat Associates located near 26 revenue villages viz. Dhuwala, Bagudaar, Kesharpura, Keshavvilas, Madhopura and others., TehsilJahajpur, District- Bhilwara (Rajasthan) (1299ha.) - [Proposal No. IA/RJ/MIN/27046/2013; File No.J-11015/259/2013-IA.II (M)] - Reconsideration of EC.

1. The proposal of M/s Shekhawat Associates is for mining of Bajri (Minor Mineral) at 26 revenue village(s) of Tehsil-Jahazpur, District-Bhilwara, Rajasthan with proposed production capacity of 42.0 Lakh TPA (ROM) of Bajri in the mine lease area of 1299.0ha. The mine lease area lies in Banas River bed. The Latitudes and Longitudes of the mine lease area lies between 25045'00" N to 25029'00" N and 75006'00" E to 750 19'00" E on Survey of India toposheet number 45 O/2, 45 O/3, 45 O/5, 45 O/6 and 45 O/7. As per Seismic Zoning Map of India IS: 1893(Part-1):2002, 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 was considered by the Expert Appraisal Committee in its 11th Meeting held during 25th to 27th September, 2013 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The ToR was issued by MoEF vide letter No. J-11015/259/2013-IA.II (M), dated 17th October, 2013. PP vide Proposal No. IA/RJ/MIN/27046/2013 dated 05.03.2015 submitted the EIA/EMP Report online to Ministry for seeking environmental clearance after conducting Public Hearing for Production Capacity 42 Lakhs TPA of Sand in 1299.0 ha. The mine lease area is located near 26 revenue villages viz. Dhuwala, Bagudaar, Kesharpura, Keshavvilas, Madhopura and others, Tehsil-Jahajpur, District-Bhilwara (Rajasthan).

The Proposal of EC was appraised by the Reconstituted Expert Appraisal Committee in its 34th meeting held during May 27-29, 2015. The Committee deliberated at length the information submitted by PP and recommended the Proposal for environmental clearance for Mining of Mineral Bajri (Minor Mineral) with proposed production capacity of 42.0 Lakhs TPA (ROM) subject to submission of Letter from the State Govt. on Aravali Notification.

The Committee recommended additional specific conditions viz. (i) Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical checkup and once in six months and necessary medical care/preventive measures under taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; (ii) Project Proponent shall appoint a Monitoring Committee to monitor the replenishment study, traffic management, levels of production, River Bank erosion and maintenance of Road etc.; (iii) Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages; (iv) Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density; (v) Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing; (vi) Excavation will be carried out up to a maximum depth of 3 meters from surface of mineral deposit and not less than one meter from the water level of the River channel whichever is reached earlier; (vii) The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also

be done regularly. Vehicles with PUCC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centre; (viii) Washing of all transport vehicle should be done inside the mining lease; and (ix) "Environmental Clearance is subject to final outcome of Hon'ble High Court of Rajasthan and other Court of Law, if any.

The matter was examined in the Ministry and PP was informed vide letter dated 13.07.2015 to submit Letter from the State Govt. on Aravali Notification.

PP vide its letter dated 25.06.2015 uploaded the letter from State Government vide letter No. Kha.a/Bheel/C.C.4/Kha. P. 117/2012/89 dated 06.02.2015.

The Ministry vide its letter dated 02.01.2017 sought additional details from the PP to conduct and submit a scientific replenishment study report citing the following:

"The matter was examined in the Ministry w.r.t. replenishment study and noted that the Ministry has issued the terms of reference and inter-alia mentioned a condition that the Project Proponent shall conduct a detailed replenishment study and submit the report along with the EIA/EMP. However, the Project Proponent has made a theoretical study based on Dendy Bolton's Replenishment Formula. In view of the above, the Ministry requested the EAC to recommend the amount of production on yearly basis based on a duly conducted scientific replenishment study before recommending Environmental Clearance. Accordingly, the proposal to discuss the replenishment study issues related to sand/ bajri mining projects have been re-considered before the EAC meeting held during October 24-25, 2016.

The Committee deliberated the issues and opined that Replenishment of the sand is a natural process in the perennial rivers. The sand moves along with the water streams and is deposited in the void created in the mined out areas. Replenishment rates vary depending on nature of watershed, nature of soil and rainfall etc. and mining beyond the natural replenishment rate results into damage of river bed leading to adverse environmental consequences. Mining proposals under the category of river mining are received for Environmental Clearance mainly from States such as Uttarakhand, Himachal Pradesh, Uttar Pradesh, Jammu and Kashmir, Haryana, Bihar and Rajasthan. Analysis of these proposals reveals that the proposals of sand mining from Rajasthan are not in perennial rivers. These are, in effect, paleo sand deposits and are not replenished annually during monsoon season. The mined out areas are not replenished adequately and may turn into permanent depressions.

The Committee noted that the EIA/EMP reports on sand mining proposals estimate replenishment rates based on theoretical Dendy—Boltan formula and not on actual replenishment studies. The Dendy- Boltan formula is not very useful to estimate replenishment rates at a particular stretch of a river and its application to cases such as those of Rajasthan, where rivers are not perennial, is even more problematic. In view of the above, there is a need, therefore, to treat the river sand mining proposals from Rajasthan differently from those of other States. The Committee deliberated the issues w.r.t. replenishment study and is of the view that in case of Sand/Bajri mining projects from the State of Rajasthan, Project Proponents shall first conduct a scientific replenishment study and submit the report before the EAC for further consideration of amount of production for mining of sand/bajri on yearly basis. Therefore, the Committee deferred all such sand/bajri mining proposals of State of Rajasthan."

In response to the ADS dated 02.01.2017, PP uploaded the "Scientific Replenishment Study Report for Bajri/Sand Mine Leases in The State of Rajasthan (Phase-I Report)" dated December, 2017 on PARIVESH on 29.12.2017.

Meanwhile, the Member Secretary had informed to the Committee that the issues related to replenishment study on the sand/bajri mining projects were deliberated by the EAC in its meeting held during October 24-25, 2016 wherein the Committee deliberated the issues w.r.t. replenishment study for the sand/bajri mining projects received from State of Rajasthan and the Committee suggested that Project Proponents shall first conduct a scientific replenishment study and submit the report before the EAC for further consideration of amount of production for mining of sand/bajri on yearly basis. Therefore, the Committee had deferred all such sand/bajri mining proposals of State of Rajasthan.

The Member Secretary apprised the Committee that the Hon'ble Supreme Court vide its judgment dated 16.11.2017 in the matter of SLP(C) No.34134 of 2013 (State of Rajasthan Vs Nature Club of Rajasthan) has restrained river sand/ bajri mining in the State of Rajasthan in respect of 82 Letter of Intent (LoI) holders who had submitted their applications to the MoEFCC for grant of EC. The 19 PPs are covered under 82 LoI holders who have been restrained from carrying out river sand/ bajri mining. The nineteen (19) Proposals have submitted the Scientific Replenishment Study Report which was prepared by the Central Mine Planning & Design Institute (CMPDI). These 19 Proposals were considered by the Special EAC meeting held on 08.01.2018 wherein the Committee has made detailed deliberations and observed that M/s CMPDI has not presented its data in the Scientific Replenishment Study report as the same was accepted to be rough estimate and non-representative of the actual replenishment status.

The Committee noted that there is a requirement of identification of active mining area within leased river stretches and subsequent identification and preparation of cross-section for assessing replenishment of sand in coming years. Hence, mining permission is technically required to be granted so as to conduct replenishment studies in future and demonstrate the same to State Govt. to regulate mining of paleo deposits in future. Accordingly, EAC recommended mining of river sand/ bajri to up to 25% capacity of the annual proposed production capacity subject to submission of information and undertaking as below:

- (vi) 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;
- (vii) PPs and M/s CMPDI 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;
- (viii) 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;
- (ix) State Government of Rajasthan shall regulate the mining operations by PPs and submit report to MoEFCC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (x) State Deptt. Of Mines & Geology and PPs are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

The Ministry, vide letter dated 05.02.2018 has requested Department of Mines and Geology, Government of Rajasthan/Project Proponent to submit the above

mentioned information. In this context, the Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 submitted the above mentioned information for 18 LOIs.

Meanwhile PP, on 26.04.2018, also submitted some Additional information & Undertaking in response to F.No. J-11015/231/2013-IA.II (M) dated 05.02.2018. The Ministry informed the PP on 13.06.2018 that the Committee deliberated the information submitted by PP and deferred the proposal and suggested that the proposal can only be considered after submission of requisite information which are detailed in the minutes of EAC held during May 30th -31st, 2018. The PP is requested to kindly see minutes of the Meeting for further necessary action.

The minutes of meeting states as below:

The information submitted by the Department of Mines and Geology, Government of Rajasthan/Project Proponent are technical in nature and accordingly the proposals were placed before the EAC in its meeting held during May 30-31, 2018. The point wise information and detailed deliberation by the EAC is as below:-

- (vi) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has mentioned that the DMG has asked concerning Mining Office to submit demarcated river stretch through latitudes and longitudes where river sand/bajri mining can be permitted based on available reserves and Original Ground Level at each cross section in consultation with State Irrigation Department.

Name of Lease holder	Tehsil	District	ML Area (in ha)	River	Area selected for mining	
					No. of Blocks	Total Area (ha)
M/s Shekhawat Associates	Jahazpur	Bhilwara	1299 ha	Banas	5	559.92

The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what depth material will be excavated. Thus, the PP is required to submit the sections clearly marking the area to be excavated and depth of the excavation of mineral. The same needs to be verified by the State Mines and Geology Department, Govt. of Rajasthan.

- (vii) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted the location of Maps which duly signed by Senior Geologist and Mining Engineer, Department of Mines and Geology, Government of Rajasthan. It was found that the plans and sections were not depicting the date of survey further in order to ensure the ground survey PP should submit the date of survey the model no & details of the instrument used for the survey and the field recordings and observations taken the signatures should explicitly mention in the field book as well as plan & Sections.

- (viii) PP has submitted the undertaking dated 18.04.2018 which inter-alia mentioned that (a) The mining shall be done only upto one meter depth from Original Ground Level; (b) Scrapers shall be used for mining; (c) No other heavy machinery like excavators, JCB machines etc. shall be used for mining which may adversely impact the aquatic and biotic life; and (d) The report on bajri mining may be submitted quarterly to the State Government of Rajasthan.

- (ix) Department of Mines and Geology, Government of Rajasthan, vide letter dated 20.04.2018 has submitted that the State Government shall regulate the mining operation after start of work and will submit quarterly report thereafter.

- (x) The District Survey Report as per the MoEFCC Notification dated 15.01.2016 has been submitted by Government of Rajasthan.

The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only valid up to 31.03.2018. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. 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.

The Committee deliberated the information submitted by State Government of Rajasthan and Project Proponent. The representatives of State Government of Rajasthan were also present during the meeting. Based on the detailed deliberations and discussions on the information submitted by the State Government of Rajasthan/Project Proponent, the Committee **deferred** the proposal and suggested that the proposal can only be considered after submission of following information: -

- i. 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.**
- ii. The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what lateral and depth extents the material will be excavated. Thus, 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.
- iii. 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, chianages 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.
- iv. 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 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.

- v. 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.
- vi. 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.
- vii. 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.
- viii. 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 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.
- ix. PP shall submit the compliances as per the Ministry's Office Memorandum No.3- 50/2017-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.

PP has now replied to the ADS on 19.05.2020 and has submitted that Replenishment study report prepared and verified by irrigation as well as Department of Mines & Geology Rajasthan in Compliance to the points raised by Special EAC Meeting held on 08 Jan 2018 & EAC IN 32nd meeting held on May 30-31, 2018. The point wise compliance & clarifications are as following: -

1. Compliance of Special EAC Meeting

S. No.	Points / observation made by EAC	Compliance
1.	DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/ bajrimining can be	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

	permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;	available reserves and original ground level(OGL) at each cross-section in consultation with irrigation department. Enclosure as Annexure -1 to the letter by PP.
2.	PPs and M/s CMPDI 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. Enclosure as Annexure -2 to the letter by PP.
3.	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 herewith regarding the use of scrapper for mining to ensure mining depth be maintained as 1.0 meter (max) and other heavy machinery like bucket excavators, JCB machines etc. will not be used. This may adversely impact the aquatic biota. Enclosure as Annexure -3 to the letter by PP.
4.	State Government of Rajasthan shall regulate the mining operations by PPs and submit report to MoEFCC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season.	State govt. of Rajasthan not regulated the mine as mining operations not performed in compliance with the order of Honorable supreme court. Thus leveled of cross-section not made before the onset of rainfall season.
5.	State Deptt. Of Mines & Geology and PPs 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) in line with provisions made in Ministry's notification dated 15.01.2016 is Enclosed as Annexure- 4 to the letter by PP.

2. Compliance of EAC Meeting held on May 30-31, 2018

S. No.	INFORMATION/CLARIFICATION	COMPLIANCE
1)	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. P.10 (5)Khan/Group-2/2013, Jaipur dated 27 February 2013 issued by Department of Mines & Geology, Government of Rajasthan. Enclosure as Annexure -5 to the letter by PP.

2)	<p>The Committee deliberated the sections submitted by PP and noted that it is not clear from the section that till what lateral and depth extents the material will be excavated. Thus, 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</p>	<p>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 attached as Annexure No.-6 to the letter by PP</p>
3)	<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. Enclosure as Annexure7 to the letter by PP (Section wise CSV)</p>
4)	<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 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</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 2016. 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>

	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.	
5)	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, is given
6)	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. Enclosure as Annexure-8 to the letter by PP
7)	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..
8)	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	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. iv. Each pillars having base of 0.3mtrs x0.3mtrs and height of 1.30mtrs of which 0.7mtrs are

	<p>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>above ground & 0.6mtrs below ground.</p> <p>v. All Pillars are painted in yellow colour and top 10cm in red by enamel paint and grouted with cement concrete.</p> <p>vi. Distance backward & forward bearing with latitude & longitude marked on the pillar.</p> <p>vii.</p> <p>vii. Each Pillar are numbered in clockwise direction and number engraved on the pillar.</p> <p>viii. The Number of pillars is the number of individual pillars upon the total number of pillars in the lease.</p> <p>ix. 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 presentation)</p>
9)	<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 that affidavit dated 26.02.2020.</p>

In addition to above, PP has submitted the Replenishment Study report (Based on Topographical Survey).

4. PP has submitted the mine lease area is 1299.0ha which is GairmumkinNadiNala. No forest land is involved. The letter of intent was granted Rajasthan Minor Mineral Concession Rules, 1986, was granted vide Rajasthan State Government order no. Khan (Group – 2) Vibhag, S.No. P.10 (5)Khan/Group-2/2013, Jaipur dated 27 February 2013 in favour of M/s Shekhawat Associates for river-bed mining of minor mineral Sand (Bajri).

5. PP has submitted that the mine plan was approved by SME Bhilwara vide SME/BHL/CC2/BAJRI/BHL/2012/5215 dated 28-11-2013.

6. The Proponent has submitted that Mining is by opencast semi-mechanized method. Excavation will be carried out up to a maximum depth of 3 meters from surface of deposit and not less than one meter from the water level of the River Channel whichever is reached earlier. Mineral will be transported through road. The project proponent informed that 500ha area will be used for excavation, 11.33 ha for road, 165.0 ha for Green belt development and 622.67 ha area will be the others (undisturbed area).

7. PP submitted that the groundwater table shall not intersect with the bottom of mining pits. No pumping of ground water or dewatering is envisaged under the mine plan. The total water requirement is 50 KLD including water demand for domestic purpose (4 KLD), dust suppression (31 KLD) and green belt development (15 KLD) which shall be met by tanker supply from the private agency.

8. PP has submitted that a “Green Belt Development Plan” has been proposed around the mine lease area and along the haul roads. The species selected under this plantation will be moderately high, good foliage bearing and are able to trap dust and noise. The greenbelt shall be developed annually in approximately 33 ha area. The area designated for each year shall be planted with trees and shrubs @ 500 plants/ha. PP has made a provision for plantation of total of 100735 saplings in an area of 165 ha spread over a period of 5 years. PP has earmarked Rs. 20 Lakhs as Annual cost for green belt development plan.

9. PP submitted that the proposed area does not involve forest land. The project proponent reported that no ecologically sensitive area such as National Parks, Wildlife Sanctuaries, and Tiger Reserves falls within the study area (10 km radius of the mine periphery).

10. PP submitted that a Detailed biological study for flora of core and buffer zone has been conducted. Though no Schedule-I & II species, under WPA 1972, have been sighted in the project area i.e. core zone. However, in the buffer zone of the study area a good wildlife which inter-alia include a few mammals (Jungle Cat, Indian Fox and Rhesus Monkey - Schedule - II) and avifauna (Common Peafowl – Schedule - I) included in Schedule I & II of WPA Act, 1972 are stated to be present as per Forest Working Plan of Bhilwara Forest Division. These wild animals sometimes also frequent the area nearby the river banks and villages. Thus, for conservation of these wildlife in non-forest area a management plan has been formulated in the light of measures enunciated in the working plan of Bhilwara Forest Division. The Proponent has earmarked budget of Rs. 2 Lakhs as recurring cost for Conservation Plan for wildlife.

11. In response to EAC deliberation and ADS raised in the minutes of the EAC meeting held during 30th May, 2018 to 31st May, 2018, PP submitted the District Survey Report (Rajsamand District).

12. PP has submitted that the baseline study for different environmental attributes was carried out during October-December, 2013. The wind rose diagram developed during each month of Post-monsoon season (October 2013 to December 2013). It reveals that pre-dominant wind direction occurs mostly from W-WNW-WSW direction to E-ESE and ENE and also from E-NE to W-SW respectively. The average mean wind speed is 0.68 m/s and the maximum speed observed was 13 kmph. The pollutant concentration in the air is well below the NAAQS. The noise monitoring shows that Leq day and night time noise levels are within the standards. The analysis results indicate that water is slightly Alkaline in nature as pH 8.05 which is well within the range of 6.5 - 8.5 specified standard limit. The TDS value was 1250 mg/l which exceeded the Tolerance limit. Dissolved Oxygen was observed as 7.0 mg/l which indicate the surface water quality is conducive for aquatic life. The Chloride was 170 mg/l and Sulphates 326 mg/l and thus were well within the tolerance limits (Chlorides 250 mg/l and sulphates 400 mg/l). It is evident from the above values that all the parameters are found to comply with the requirements of IS: 2296 specification of surface water except bacteriological parameters as BOD (5 days) exceeded the tolerance

limit. The Heavy metal content is found below detectable limits. The surface water quality is good for irrigation purpose and outdoor bathing except drinking water source with conventional treatment followed by disinfection.

In response to EAC deliberation and ADS raised in the minutes of the EAC meeting held during 30th May, 2018 to 31st May, 2018, PP submitted the Replenishment Study Report (Based on Topographical Survey).

13. The Project Proponent reported that The Rajasthan State Pollution Control Board conducted the Public Hearing on 19.12.2014 at Tehsil Office, Jahazpur, District Bhilwara. The Public Hearing was presided over by Mr. Suresh Kumar, ADM Bhilwara. The representatives of the State Pollution Control Board, Rajasthan were also present. The issues raised during the Public Hearing were also considered and discussed during the meeting, which inter alia, included that priority to local people in employment, effective implementation of measures to control dust pollution, water conservation measures, social and other village development activities.

14. PP has submitted that Proponent informed that Rs. 9.0 Lakhs per annum have been earmarked towards CSR activities for next five years of mining operation.

15. PP reported that in the wake of the fact that no private land or asset acquisition is involved in the mine lease area which totally falls in revenue waste land classified as GairMumkinNadi/Nala in the revenue records, no R&R plan is warranted

16. The Project Proponent submitted The overall cost of environment management plan shall be Rs. 2.18 Lakhs(capital cost) and Rs. 53.45 Lakhs (annual recurring cost).This includes 1) Environment Monitoring Plan for Air, Noise, Water, Soil, etc. (Recurring/annum – Rs. 3.0 Lakhs), 2) Air Pollution Control - (Recurring/annum – Rs. 2.17 Lakhs), 3) Plantation / Green belt development plan (Recurring/annum – Rs. 20 Lakhs), 4) Disposal and spreading of Silt/clay as per Mining Plan (Recurring/annum – Rs. 15 Lakhs), 5) Occupational Health Measures Provision of PPE and other Miscellaneous expenditure (Capital – Rs. 2.18 Lakhs , Recurring/annum – Rs. 0.78 Lakhs), 6) Soil Conservation works (Engineering)- (Recurring/annum – Rs. 1.5 Lakhs), 7) Cost under Corporate Social Responsibility Initiatives for five years is Rs. 45 lac. Thus cost per year is Rs. 9.0 lac and 8) Conservation Plan for Wildlife (Schedule I & II, WPA, 1972) - (Recurring/annum – Rs. 2 Lakhs)

17. PP has submitted Sand/Bajri mining does not contain any toxic element. Therefore, the likelihood of any health hazard does not arise due to the mined product per se. However, the process of excavation / quarrying leads to some health hazards. The dust generated due to excavation loading and movement on Katcha/riverbed haul road creates air borne dust which has silica contents. The dust is the main pollutant of concern for the workers engaged in the mining activities. The most significant occupational health impacts are Noise Induced Hearing Loss (NIHL) and Occupational Lung Disease (OLD) like allergic rhinitis and asthma due to inhalation of dust. Working in open during summer can expose workers to the direct sun rays causing heat strokes, cramps and burns besides leading to exhaustion. In extreme windy conditions the dust particles forcing way into the eyes can create itching as well as allergic conjunctivitis of eye. As per Mines Rules, 1955, Chapter – IV-A, Section 29B, medical examination of employees at the initial stage and periodically, shall be done by a team of qualified medical officers provided by the project proponent. PP has submitted that Impacts have been anticipated and measures spelt out, and detailed occupation health management plan is provided. Occupational Health Measures Provision of PPE and other Miscellaneous expenditure has been envisaged as Capital cost – Rs. 2.18 Lakhs and Recurring/annum – Rs. 0.78 Lakhs).

18. PP submitted the there is no court case/Litigation pending pending towards the proposed project.

The Project Proponent has also made a submission that in accordance to Hon'ble Supreme Court of India's orders dated 25.11.2013, 24.02.2014 and 27.03.2014 (In Civil Appeal No. 9703-9706 of 2013) production of ~736735 MT of Bajri has been achieved after grant of temporary working permission for mining granted by Joint Secretary, Govt. of Rajasthan vide letter no. P.10 (5)Khan/Group-2/2013 dated 19.12.2013.

19. PP has submitted the affidavit vide Certificate dated 26.02.2020 as per the Ministry's Office Memorandum No.350/2017-IA.III(Pt.), 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.

The consultant organization in the EIA report has given an undertaking that they hereby solemnly do undertake that the prescribed ToR by the MoEF, in respect of the EIA/EMP report of Sand/Bajri Mining (ML Area of 1299.0 ha) in Tehsil Jahazpur, District Bhilwara, Rajasthan, have been complied with and that the data submitted is factually correct to the best of my knowledge and belief. I further undertake that the organization owns the contents (Information & Data) of the EIA report.

Further, PP has given undertaking in EC Report that they hereby give undertaking that the data and information given in the application and enclosures are true to be best of their knowledge and belief and they are 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.

20. The Proponent submitted that total project cost will be Rs. 75 Lakhs and it is estimated that approximately 109 persons shall be benefited by direct employment.

21. The EAC deliberated on the submissions made by the project proponent and presentation made by the consultant and made following observation:

- i. The Committee deliberated on the replenishment study report submitted by PP. The amount proposed for production is 42 LTPA in the 559.92 Ha out of 1299 Ha lease area. The Committee observed that Replenishment Study Report submitted with EIA/EMP does not give any insight of safe extractable quantity as the blocked reserves in the safety zone is not provided in the report.
- ii. On comparing the results of replenishment study conducted by CMPDI in 2017 which is based on the Meyer-Peter's equation and by OMTC which is based on pre & post monsoon dated, the Committee found that there is a huge variation in the quantity of material deposited.
- iii. The Committee also observed that there is difference in the mining area as per LOI (1299 Ha) and demarcated by DMG (559.92 Ha). Earlier, Director, mines, Jaipur informed that after Judgment dated 27.02.2012 of Hon'ble Supreme Court in the matter of Deepak Kumar vs State of Haryana & Ors, the State Govt. of Rajasthan has issued LoI for the mining leases of larger area. He also informed that based on the EAC meeting held during 8.01.2018 the State Govt. identified the area where mining can be permitted based on the conditions prevailing at that time.
- iv. The Committee also observed that in the replenishment study report mineable mineral was calculated and impact on traffic density was covered. But it is not clear from the study report that area which comes under no

mining zone (block area) and the reserves which is blocked in this area. Due to this it is difficult to ascertain that what would be safe extractable volume, depth and tonnage.

- v. The Committee also observed that there is a difference in specific gravity as reported in two study reports viz. CMPDI & OMTC. The Committee also discussed, earlier in the meeting held on 6th May, 2020, this issue with Shri B.S. Soda, Additional Director (Mines), Jaipur and Nodal Officer from the State Government of Rajasthan who confirmed that specific gravity may be considered as 2.54 tonne/m³.
 - vi. The Member Secretary informed the Committee that Ministry has received a representation on 4.05.2020 from Bajri Mining Lease Holders Association wherein it was requested for mechanized mining, mining in night hours and considering the proposal based on the recommendation already made by EAC. One of the PP also reiterated the same by addressing and informed the Committee there is sufficient material available for mining and requested for grant of EC.
 - vii. The Committee considered the request of the Member of the Association at the same time is also of the view that the Hon'ble Supreme Court in its order dated 2.08.2018 mentioned that "124. We are not in agreement with learned counsel for the mining lease holders. There is no doubt that the grant of an EC cannot be taken as a mechanical exercise. It can only be granted after due diligence and reasonable care since damage to the environment can have a long term impact.". Further, EAC is of the view that "In another judgment in Secretary, Kerala State Coastal Management Authority v. DLF Universal Ltd., the Apex Court discussed about the procedure of deemed environmental clearance and held that not to be followed in future, since obtaining of prior environmental clearance is mandatory, irrespective of wording in Para 8(2) of EIA 2006 Notification." So, in the instant case the decision can be only be taken after examining the information & data submitted by the PP.
 - viii. The Member Secretary also informed the Committee that Ministry also received a representation from Sr. Advocate of Hon'ble Supreme Court against the Sand Mining Proposals from the State of Rajasthan wherein inter-alia the issues raised is regarding illegal mining, violation of Common Cause Judgment dated 2.08.2017 and request for not considering these proposals. The Chairman is of the view that complaint may be forwarded to all the members so that issues mentioned therein may be addressed and at the same time asked the Member Secretary to sought desired information from PP/State Government for the same.
 - ix. The Committee also felt that complete document is not available online and Ministry may ask PP to upload the same for further appraisal and public viewing. In case PP faces any issue regarding size restriction then same may be informed to Director NIC, MoEF&CC and Member Secretary, so as to ensure that all the information made online.
22. Based on the discussion during the EAC meeting on 22nd July, 2020 and document submitted by the PP, the Committee **deferred** the proposals for want of following information from the PP& State Government.
- 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.
- xiii. PP shall provide detailed actual project cost considering the land, plant and machinery and other capital expenditure along with the detailed breakup.
- xiv. PP shall also provide the arrangements proposed in compliance with the Enforcement & Monitoring Guidelines for Sand Mining 2020, as applicable for the PP.
- xv. Revised wildlife conservation plan with site specific measures shall be submitted instead of generic plan.
- xvi. Revised budget for implementation of enforcement and monitoring guidelines, 2020 inter alia, including security gaurds, servillience, RFID system, manifest system.

2.3 Amendment in Environmental Clearance with increase in the mine lease Area from 163.90 Ha to 211.9887 Ha for the Mining Project "Soapstone, Red Ochre and China Clay (M L No.-81/82)"at Near village-KakroliyaGhati, Tehsil-Kotri, District-Bhilwara, Rajasthan by M/s Deedwaniya& Sons (File No. J11015/408/2005-1A.II(M); Proposal No. IA/RJ/MIN/75361/2005) - Amendment in EC.

The proposal of M/s Deedwaniya& Sons is for amendment in Environmental Clearance No. J-11015/408/2005-IA.II (M) dated 15.01.2007, w.r.t. correction in the Mine Lease Area 211.9887 Ha in place of 163.90 Ha. The mine is located near village-KakroliyaGhati, Tehsil-Kotri, District-Bhilwara, Rajasthan.

2. The Project proponent has applied for the amendment vide Proposal No. **IA/RJ/MIN/75361/2005 dated 09.06.2018**. The proposal was placed in the **34th EAC Meeting held during July 19-20, 2018**. The Committee noted that the Ministry has granted the EC vide letter no J-11015/408/2005-IA.II(M) dated 15.01.2007 for production of 60,000 TPA of China Clay, 5000 TPA of Soapstone and 30,000 TPA of red ochre involving the mine lease area of 163.90 Ha. State Govt. of Rajasthan, vide letter dated 24.12.2013 informed that due to calculation and closing error, the mine lease area has been increased from 163.90 Ha to 211.9887 Ha and accordingly lessee has to take necessary amendments in the EC. The Committee noted that PP has not applied the amendments earlier and now applied after 4.5 years. This is non-compliance of EC. The Ministry may take necessary action viz. to issue Show Cause Notice as per provisions of the E (P) Act, 1986.

3. Based on the information submitted and presentation made by PP, the Committee deferred the proposal in its meeting held during 19-20 July, 2018 and sought the following requisite information/clarifications: -

- i) *State Govt. of Rajasthan, vide letter dated 24.12.2013, informed that due to calculation and closing error the mine lease area has been increased from 163.90 Ha to 211.9887 Ha and accordingly lessee has to take necessary amendments in the EC. The Committee noted that PP has not applied the amendments earlier and continued the mining operations. Now PP has applied the amendments in EC after 4.5 years. This is noncompliance of EC. The Ministry may take a decision as per provisions of the E (P) Act, 1986.*
- ii) *PP has not submitted the (i) certified production details from DMG since inception of mine; and (ii) CTE/CTO since inception of mine, to verify the compliances of the order of Hon'ble Supreme Court dated 02.8.2017*

(Common Cause Vs Union of India &Ors.) in CWP No. 114/2014.

iii) The Committee also noted that it was a violation case at the time of issuance of EC in 2007 and accordingly the Ministry has requested State Govt. of Rajasthan (Secretary, Environment Department) to take necessary action as per the provisions of the E(P) Act, 1986; However, there is no communication received from the State Govt. about the action taken. In this regard, State Govt. of Rajasthan (Secretary Environment) may be requested for the detailed action on the violation.

iv) The Committee is of the view that certified compliance report of earlier EC conditions may be requested from the Regional office of the MoEFCC, Lucknow before further appraisal of the proposal.

4. Accordingly, PP was informed to submit the requisite information on 30.07.2018 and Ministry's show-cause notice dated 09.08.2018 under section 5 of EPA, 1986 for non-compliance of EC issued as above. In response to the same PP vide its letter dated 17.08.2018 submitted the following:

Sl. No.	Issue raised in Show-cause Notice	Reply
1.	Whereas, M/s Deedwaniya & Sons has applied for amendment in Environmental Clearance No. J-1 1015/408/2005-IA II (M) dated 15.01.2007, w.r.t. increase in the Mine Lease Area from 163.90 Ha to 211.9887 ha. The mine is located near village-Kakroliya Ghati, Tehsil-Kotri, District-Bhilwara, Rajasthan; and	Noted and undisputed
2.	Whereas, the proposal of amendments in EC was considered by the Expert Appraisal Committee in its meeting held during July 19-20, 2018 wherein the Committee noted that the Ministry has granted the EC vide letter no J-1 1015/408/2005-IA.1I(M) dated 15.01.2007 for production of 60,000 TPA of China Clay, 5000 TPA of Soapstone and 30,000 TPA of red ochre involving the mine lease area of 163.90 Ha; and	Noted and undisputed
3.	Whereas, State Govt. of Rajasthan, vide letter dated 24.12.2013 informed that due to calculation and closing error the mine lease area has been increased from 163.90 Ha to 211.9887 Ha and accordingly lessee has to take necessary amendments in the EC; and.	Noted and undisputed
4.	Whereas, the Expert Appraisal Committee during its meeting held during July 19- 20, 2018 noted that PP has not applied the amendments earlier and now applied after 4.5 years. This is non-compliance of EC. The Committee deferred the proposal and suggested that the Ministry may take necessary action viz. to issue Show cause Notice as per provisions of the E (P) Act, 1986; and.	Noted but partly not acceptable. In this matter, following points merit considerations; (1) PP had applied for the renewal of our mine lease.

		<p>Thereafter, Suptd. Mine Engineer, Bhilwara, Department of Mines & Geology, GoR wrote a letter to the Director Mines & Geology, Udaipur dated 24.12.2013 which inter-alia stated/clarified/ sought as letter enclosed by PP as Annex-1 to the letter.</p> <p>(2) In reply to aforesaid letter dated 24.12.2013, the Suptd. Engineer, Mines & Geology (DMG) wrote a letter dated 23.01.2014 to ME, Bhilwara and sought action report on 4 points (PP has enclosed the letter as Annex-2 to its letter.)</p> <p>(3) The ME Bhilwara issued a letter dated 19.02.2014 to PP to deposit Rs.25366.87 (Copy of letter enclosed as Annex-3 to the letter)</p> <p>(4) In turn, PP deposited Rs.25366.87 (copies of Banker's ChequeRs. 25367 vide D.D. No. 002596 on BoB date 20/02/2014 and PP's letter enclosed Annex-4 to the letter)</p> <p>(5) Next, the ME vide his letter dated 20/05/2014 asked PP to pay Rs. 20000/- in compliance to condition no. 1 w.r.t. notice issued for Joint demarcation. (Copy of letter enclosed as Annex-5 to the letter)</p> <p>(6) PP deposited Rs. 20,000 on 20.06.2014 (copies of PP's Letter dated 20.06.2014 and Cheque No. 819389 on dated 20.06.2014, Bhilwara enclosed as Annex-6 to the letter.</p> <p>(7) Thereafter, vide letter dated 07.09.2014, PP requested Pinkcity Mining Consultancy Pvt. Ltd. to prepare Mining Plan and</p>
--	--	---

		<p>Progressive closer plan for its mine 81/82 (copy enclosed) followed by payment of Rs. 2,000.00 to Suptd. M E Bhilwara vide e-challan no. IKA4371097 dated 23.02.2016 as “Mining Plan Approval Fee” (Annex-7 to the letter)</p> <p>(8) The Mining Plan and Progressive mine closer plan was approved by Suptd. M.E Bhilwara vide his letter dated 17.02.2017 (Annex-8 to the letter)</p> <p>(9) After the approval of mining plan on date 17.02.2017, PP requested ME Deptt of Mines & Geology vide its letter dated 21.03.2017 with the request for providing information on 9 points inter alia, the approved map (depicting details as per approved mining plan) so that PP could apply for correction in mining area from 163.9 ha to 211.9887 ha in the EC dated 15.01.2007 (Annex-9 to the letter.)</p> <p>(10) Despite a long wait since 23.3.2017, PP did not get the requisite map and suo-moto applied on 09 June 2018 to MoEF& CC for correction in EC for mark the Mining Lease area from 163.9 ha to 211.9887 which was presented to EAC on July 19, 2018.</p>
--	--	--

With the facts given above and having had a close examination of EC dated 15.01.2007, PP requested Ministry to not to reject its EC dated 15.01.2017, instead consider its application favourably and issue corrected EC bearing correct Mining Lease area 211.9887 ha in place of 163.90 ha.

5. **The Ministry on 28.02.2019** requested PP to submit the complete information as sought by earlier EAC. In response to the same, **PP vide its letter dated 31.07.2019** submitted the following information:

Sl. No.	Issue raised	Reply
---------	--------------	-------

(i)	State Govt. of Rajasthan, vide letter dated 24.12.2013, informed that due to calculation & closing error the mine lease area has been increased from 163.90 Ha to 211.9887 Ha & accordingly lessee has to take necessary amendments in the EC. The committee noted that PP has not applied the amendments in the EC after 4.5 years. This is non-compliance of EC. The ministry may take a decision as per provision of the E (P) Act, 1986.	PP stated that the reason behind the amendment was asked by MoEF to us in deficiency letter No. 11015/408/2005-IA.II(M) Dated : 9/08/2018 and PP had replied in detail about the reason along with suitable documents. Copy of that reply dated 17.08.2018 is enclosed by PP.
(ii)	PP has not submitted the (i) certified details from DMG since inception of mine, and (ii) CTE/CTO since inception of mine, to verify the compliances of the order of Hon'ble Supreme Court dated 02.08.2017 (common Cause V/s Union of India &Ors.) in CWP No. 114/2014	PP has submitted the Certified details from DMG since inception of mine vide letter dated 22.03.2019 for the period from 07.03.1984 – 06.03.1985 to 01.04.2014 – 31.03.2015, and CTO copies for some period.
(iii)	The Committee also noted that it was a violation case at the time of issuance of EC in 2007 & accordingly the Ministry has requested state Govt. of Rajasthan (Secretary, Environment Department) to take necessary action as per the provision of the E(P) Act, 1986; however there is no communication received from the State Govt. about the action taken. In this regards, State Govt, of Rajasthan (Secretary Environment) may be requested for the detailed action on the violation	Noted
(iv)	The Committee is of the view that certified compliance report of earlier EC conditions may be requested from the regional Office of the MoEFCC, Lucknow before further appraisal of the proposal.	Noted

6. The Ministry on 08.08.2019 requested PP to submit the Production details financial year-wise duly authenticated by DMG. In response to the same, PP on 10.12.2019 has submitted the same certified production details dated 22.03.2019 as submitted before. Additionally, PP has submitted production details certified by DMG vide letter dated 15.06.2018 for the period from 07.03.2007 – 06.03.2008 to 2018-19.

7. The PP also submitted the affidavit to comply with the orders of Hon'ble Supreme Court dated 2nd August, 201 in WP(C) 114 of 2014.

8. After detailed deliberations, the committee observed the following:

- i. The change in the ML area from 163.90 Ha to 211.9887 ha is due to variation in the initial allotment and actual filed survey and the same was confirmed from the copy of DMG letter dated 03.02.2014.
- ii. The PP has submitted the certified production details and there is no violation reported.
- iii. The PP informed that the EC compliance report was certified by RO, RSPCB vide his letter no. RPCB/RO/BHL/BMR-76/3375 dated 16/12/19.
- iv. The instant proposal may be treated as correction of the ML area in lieu of increase in the ML area.

9. Further, the PP submitted copy of DMG letter dated 03.02.2014 in respect of change in the ML area from 163.90 Ha to 211.9887 ha vide PP's letter dated 22nd July, 2020.

10. The committee, after detailed deliberations and examination of the documents submitted by the PP, **recommended** for correction regarding the ML area as 211.9887 Ha in place of 163.90 Ha. All other terms and conditions prescribed in the EC letter dated 15th January, 2007. However, 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.

2.4 Limestone Mine {Block 3B2, Applied ML Area- 470.00 ha} with Limestone Production Capacity of 3.8 Million TPA, Waste and Topsoil: 4.887 Million M³ Per Annum by M/s JSW Cement Ltd. located near Village- Sarasani, Tehsil- Nagaur, District: Nagaur, Rajasthan. [File No.: IA-J-11015/125/2018-IA-II(M); Proposal No.: IA/RJ/MIN/80856/2018; Consultant: JM EnviroNet Pvt. Ltd.] - EC Regarding

1. The proposal of M/s JSW Cement Ltd. is for Mining of Limestone for production of 3.8 Million TPA of Limestone, 4.887 Million m³ per Annum of waste and topsoil from mining area of 470.00 Ha located at Village- Sarasani, Tehsil- Nagaur, District: Nagaur, Rajasthan. The applied area forms a part of Survey of India topo-sheet no. 45E/15 (G43B15) (mine area) and 45/15 (G43B15), 45E/16, 451/3 (G43C3), 451/4 (G43C4) (study area). The lease is located at following latitude and longitudes: Latitude: 27°15'7.0" N to 27°13'57.1" N Longitude: 73°53'14.5" E to 73°55'40.5"E, seismic zone-II.

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 online for grant of ToR on 30.09.2018 and submitted the Form 1, Pre-feasibility Report, and copy of Letter of Intent. The proposal was considered in the EAC meeting held during 23rd - 24th October 2018. The EAC, after detailed deliberations recommended the proposal for prescribing Standard Term of Reference (ToR) vide No. J-11015/125/2018-IA.II (M) dated 11.12.2018.

PP after conducting public hearing has applied for Environment Clearance on PARIVESH vide Proposal No. IA/RJ/MIN/80856/2018 on 22.01.2020 and

submitted the final EIA/EMP report after incorporating Public Hearing proceedings.

The Ministry on 13.02.2020 raised EDS, informing PP to upload proper competency certificate with respect to the applicant, which then PP uploaded on 24.02.2020.

Further, the Ministry vide its EDS dated 24.03.2020 requested PP to upload the copy of Mining Plan for further consideration of the proposal. PP vide its letter dated 06.04.2020 uploaded the copy of approved Mining Plan.

4. The PP has submitted that Letter of Intent (LoI) was issued by the Joint Secretary, Government of Rajasthan in favor of M/s JSW Cement Ltd. vide letter no P.3(10) Mines/Group-2/2018, dated 13th April, 2018. Further, PP has reported that lease deed will be executed after grant of EC.

5. The PP has submitted that Mining Plan and Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Ajmer (Rajasthan) vide letter no. 584 (4) (3) (1753)/2018 RCM-AJM dated September, 11, 2018.

6. The Project proponent submitted that Mining will be done by mechanized opencast method by deploying heavy earth moving machines and with the help of drilling and blasting. The PP submitted that hydraulic excavators will be deployed for progressing benches and for handling of limestone ore/waste material. Drilling and control blasting techniques will be used for hard formations, the loading operations will be carried out by loaders/excavators and transportation of limestone from working face to crusher hopper (which will be installed in the other lease area of same lessee) will be carried out by dumpers & tippers. PP submitted that mineral will be either used in the company's cement plant or sold to prospective buyers. PP submitted that the ultimate working depth shall be 270 m AMSL (30m) and the overall pit slope shall be 45°.

The Proponent submitted that the 52.07 million m³ waste will be generated due to poor recovery up to conceptual stage which will be backfilled in the 164.92 Ha of excavated area & same will be rehabilitated by plantation. PP submitted that 701420 m³ of top soil generated up to conceptual stage which will be stacked separately and used for plantation/ Green Belt Development. Liquid effluents will not be generated in the open-cast mining operation. PP submitted that Waste water generated from mines office will be disposed off in soak pit via septic tank. PP submitted that the area is plain with scanty and scattered outcrops of limestone.

7. The PP submitted that the ultimate working depth will be 270 m AMSL (30 m) and depth of ground water level near mining lease area in pre & post monsoon are found to be 55 to 61.5 mbgl & 52 to 58.5 mbgl respectively. PP submitted that the total water requirement for the project will be 200 KLD (170 KLD for Dust suppression, 20 KLD for greenbelt, 5 KLD for drinking & sanitation, 5 KLD for mine workshop) which will be sourced from bore wells and mine sump as and when developed. PP has submitted that they have applied to CGWB vide application no. 21-4/12867/RJ/MIN/2019 dated 30.01.2019 for obtaining NOC/ permission for ground water withdrawal and have uploaded a copy of their letter no JSWCL/Nagaur/Mine/CGWA/2018-19 dated 31.01.2019 submitted to CGWB, Jaipur.

The PP has submitted that detailed Rain water harvesting plan along with the year wise plan for reduction in consumption of ground water is incorporated in this Final EIA/EMP report. The total capital cost for RWHP is Rs. 10 Lakh and Recurring cost is Rs. 1.0 Lakh per annum.

8. The PP has submitted a 14-year plantation plan to develop green belt & plantation around mine boundary, undisturbed area etc. PP has reported that local & fruit bearing plant species will be planted in consultation with forest

department. PP submitted that the total Nos. 243592 saplings will be planted in total area of 243.42 ha (@1000 plants/Ha) which will include 9.70 ha along 7.5m barrier zone which will be planted in the first 7 years of operation of mines & in the remaining area of 233.72 ha [171 ha in Internal Dump area, 350.71 ha in quarry area and 46.87 ha in other area such as Excavation Area along ML Boundary, along Roads and Infrastructure, Embankment Area and in Township Located Outside the Lease etc.] plantation will be started from the 6th year to 14th year. The total cost of plantation earmarked by PP amounts to Rs. 8.73 Crores approximately. The plants and saplings suitable for the existing soil and site conditions will be considered. Preference will be given for fast growing local plant species, which can adapt to the local climate. Indigenous & fruit bearing species will be planted by JSW in consultation with local forest department, will be *Alianthus excels* (Ardu), *Azadirachtaindica* (Neem), *Acacia nilotica* (Babool), *Capparis decidua* (Kair), *Tamarindusindica* (Imli), *Mangiferaindica* (Mango), *Syzygiumcumini* (Jamun), *Acacia catechu* (Khair), *Neriumindicum* (Kaner), *Acacia senegal* (Gum arabic tree), *Aegle marmelos* (Bel), *Delonixregia* (Gulmohar), *Bombaxceiba* (Semal), *Erythrinavariegata* (Indian Coral tree), *Moringaoleifera* (Senjana), *Sesbania grandiflora* (Humming bird tree/Agati), *Grevillea robusta* (Silver Oak), *Morus alba* (Shahtut), *Aegle marmelos* (Bel), *Phyllanthusemblica* (Amla), *Commiphorawightii* (Gugal) etc:

9. The PP submitted that the total area of this mining project is 470.00 ha out of which 116.2742 ha is Govt. land, 344.7758 ha is Private land and 8.95 ha land is Grazing/ Pasture Land. PP submitted that as per revenue record there is no forest land involved in the Mining Lease Area. Letter for the same has been obtained from DCF, Nagore vide its letter No. F()/Tak/DCF/2018-19/967 dated 27.02.2019. There is no Wildlife Sanctuary, National Park, Biosphere Reserves, Reserve Forest/Protected Forest and Migratory Routes for fauna exists within 10 km radius of mining lease area. Further, Authentication of location map is under process with forest department vide PP's letter no. JSW/NAGAUR/MINE/MoEF/2018-2019 dated 02.01.2019. Since there is no forest area within the mining lease so, scheduled tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 is not applicable. Further it was submitted that The Mine site neither fall under the Critically Polluted Area nor under the Aravali range. Letter regarding no involvement of Aravali ranges has been obtained from Department of Mines & Geology, Nagaur vide letter dated 18.03.2019.

10. ThePP submitted that List of flora and fauna separately for Core and Buffer zone has been duly authenticated by DCF vide its letter No. F()/Tak/DCF/2018-19/966 dated 27.02.2019. Three Schedule-I species - Indian Peafowl (*Pavocristatus*), Chinkara (*Gazellabennettii*) and Monitor Lizard (*Varanusbengalensis*) are found in the study area. PP has submitted that Conservation Plan has been prepared and same has been approved by DFO and passed to PCCF. The cost of conservation is earmarked to be Rs. 60.09 lakh and period of implementation will be 10 years.

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

12. PP has submitted that one season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season (October to December, 2018). Site-specific meteorological data has been recorded. The dominant wind direction is from North direction. Locations of the monitoring stations were selected keeping in view the pre- dominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area. One location has been selected in downwind direction at 500m from the lease boundary.

The AAQ parameters in the study area have been found well within prescribed norms due to absence of any major source of air pollution from any major industrial establishment, average population density. From the baseline study

and discussions, it can be concluded that noise levels at most of the locations in the study area are well within the limits prescribed by the CPCB. Due to the proposed mining project, there may be impact on nearby habitations like Sarasani, Somna, Khetolao etc. Impact assessment and mitigation measures have been suggested for the same. No water body exists within the lease area and no waste water will be discharged outside lease boundary. Therefore, no adverse impact on water quality is envisaged due to the proposed mining project. The analysis results of soil show that soil is neutral to slightly alkaline in nature, the pH value ranges from 7.92 to 9.20, the soil texture is sandy at the sampling locations. The results show that there is a need to replenish the micronutrients containing potassium & phosphorus to improve the productivity of the agricultural land in the study area, and should be taken care in green belt development. According to the survey, no endemic, endangered and rare species of flora recorded in threatened status in study area. The area is represented by fauna of Schedule- I, II, III, IV, V category according to (IWPA) Indian Wildlife Protection Act, 1972. The area has presence of Lizards, and Snakes. Among the Snakes the Russell's Viper, Rat Snake, Sand boa are presence. In Lizards- Monitor Lizard, Brahminy Skink, Spiny tailed lizard was observed. Bats presence was also noticed in buffer zone. Thus PP has submitted that there will be no significant pollution of air, water, soil and noise. Regular monitoring of all the components of environment will be done. Due to increased spending on social welfare measures by the company, there will be overall development of the nearby villagers.

13. The Project Proponent reported that Public Hearing for Proposed Mining Project (Lease area 470 ha) with production capacity 3.8 Million TPA located in village sarasani, Tehsil Nagaur, District Nagaur by M/s. JSW Cement Limited was held on 14.07.2019 at 11:00 am at Government Adarsh Senior Secondary School, Villagesarasani, Tehsil- Nagaur District- Nagaur under the chairmanship of Shri Dinesh Kumar Yadav, District Collector Nagaur. The advertisement for public hearing was published on 10.06.2019 in newspapers – Times of India and Rajasthan Patrika. PP has submitted that, during the public hearing, total of 11 objections / suggestions have been received regarding the project. The issues raised during public hearing included Impact on habitation, benefits for farmers, development of village, impact of mining on habitation, impact of blasting on habitations, gochar land, acquisition of land, employment, environment pollution. The proceedings are incorporated in the EIA/EMP report.

14. The PP has submitted that as per MoEF&CC's OM no. F. No. 22-65/2017-IA.II dated 01.05.2018, for the Green field projects, CER budget should be 2% or more of the total Project cost. Total project cost for this Project is Rs. 60.09 Crores. Company has allocated Rs. 1.2 crores towards CER activities (for 5 Years) as per the issued raised. The company has allocated

- a) Total of Rs. 31.0 lakhs towards improving living conditions by i) providing health care (Rs. 10 lakh distributed over 5 years) and ii) safe drinking water (Rs. 21 lakh distributed over 5 years).
- b) Total of Rs. 30.0 lakhs towards social development by i) Formal educational institution infrastructure & development (Rs. 15 lakh distributed over 5 years) and ii) Vocational educational institution infrastructure & Development (Rs. 15 lakh distributed over 5 years).
- c) Total of Rs. 21.0 lakhs towards addressing environmental issues by i) tree plantation (Rs. 8 lakh distributed over 5 years) and ii) safe drinking water (Rs. 13 lakh distributed over 5 years).
- d) Total of Rs. 18.0 lakhs towards rural development projects by providing infrastructure facilities in rural areas.
- e) Total of Rs. 10.0 lakhs towards project management cost.

15. ThePP reported that Total Mining Lease Area is 470 ha out of which 116.2742 ha is Govt. Land and 344.7758 ha. is Private Land and 8.950 ha is Charagah/Grazing Land. As per khasra details there are 127 PAFs are involved in the lease area out of which, 69 PAFs are homestead outsees who will be displaced due to the mining activity. A detailed action plan report for R&R has been prepared by PP wherein PP has allocated a total of 12378 lakhs towards the implementation of R&R. PP has reported that R&R is yet to start.

16. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 100 Lakhs (Capital) & ₹ 30 Lakhs (recurring/annum). This will include 1) Air Pollution Control (Capital – Rs. 50 Lakhs & Recurring/annum – Rs. 8.1 Lakhs), 2) Pollution Monitoring (Capital – Rs. 5 Lakhs & Recurring/annum – Rs. 10 Lakhs), 3) Green Belt (Capital – Rs. 20 Lakhs & Recurring/annum – Rs. 9.9 Lakhs), 4) Garland drains / Catch drains / Siltation ponds (Capital – Rs. 10 Lakhs & Recurring/annum – Rs. 1.0 Lakhs) and 5) Rainwater Harvesting (Capital – Rs. 15 Lakhs & Recurring/annum – Rs. 1.0 Lakhs)

17. ThePP has submitted that Occupational health impacts of the Project have been assessed and details have been incorporated along with details of pre-placement medical examination and periodical medical examination schedules. The project specific occupational health mitigation measures with medical facilities to be provided at mine site have been incorporated the report. JSWCL will adopt the safety measures accordingly. PP has allocated a total of Rs. 19 lakhs as recurring cost on Occupational Health and Safety which includes 1) Occupational Health Surveillance (Rs. 9 Lakhs / annum) wherein Dispensary with medical staff will be set up in plant premises and will be common for both plant & mines and 2) Personal Protective equipments (Rs. 10 Lakhs / annum) wherein Helmets, Safety Shoes, Gloves, ear plugs/ muffs, jackets, goggles etc will be provided.

18. ThePP submitted the there is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

19. ThePP has submitted an undertaking in EIA Report dated 24.02.2020 the data and information in this Performa are true to the best of his knowledge and belief. The Consultant has also given an undertaking stating that the ToRs prescribed by MoEF&CC, New Delhi vide Letter No. J-11o15/125/zot8-1A'II (M) dated 11.12.2018 have been complied as per data/details provided by project proponent & as per approved Scheme of Mining approved by IBM, Ajmer and the data submitted are factually correct. Further, PP has given undertaking in Form-2 that hereby give 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. 60.09 Crore and 174 persons will be engaged for the Project as permanent employment.

21. The proposal was placed in the 17th EAC held during 28-29, May and 1st June, 2020. Based on the discussion held and document submitted by the PP, the Committee deferred the proposal. The Committee after detailed deliberations desired the following information/ documents for further consideration of the proposal:

- i. *Though it was mentioned that an affidavit is enclosed, 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., with the Final EIA/EMP report, it was not found in the report. Therefore, the affidavit shall be submitted.

- ii. *The approval from the Chief Wildlife Warden for the conservation plan for Schedule-I species found in the study area shall be submitted.*
 - iii. *NoC from CGWA for ground water withdrawal of 200 KLD shall be submitted.*
 - iv. *Action plan substitution of grazing land with along with location of the compensatory land and budget provision shall be provided.*
 - v. *The details on action plan for exploration; backfilling/ reclamation plan; life of mine as on date as per the approved mine plan; Green belt / plantation need to be submitted.*
 - vi. *PP shall submit the plan for re-handling of waste and have this activity consider for impact prediction shall be indicated.*
 - vii. *Location of the crusher: It was informed that the crusher will be located outside the ML area in the adjoining lease of the same proponent. In case of the non-execution of the proposed plan, the alternate action plan for locating the crusher inside the ML shall be clearly brought out.*
 - viii. *PP shall clearly indicate the time bound action plan for skill development as per the issues raised in PH.*
 - ix. *Details of khasra/survey number shall be submitted.*
22. The PP vide its letter No. JSWCL/Raj/MoEF&CC/EC/2020-21/3 dated 17th June, 2020 has submitted the following information/clarification w.r.t. to the ADS raised by EAC:

- i. ***Though it was mentioned that an affidavit is enclosed, 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., with the Final EIA/EMP report, it was not found in the report. Therefore, the affidavit shall be submitted.***

Submission by PP: Affidavit in a non-judicial stamp vide Certificate No. VV 977583 dated 08.01.2020, as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 is enclosed as **Annexure-1** to the letter.

- ii. ***The approval from the Chief Wildlife Warden for the conservation plan for Schedule-I species found in the study area shall be submitted.***

Submission of PP: PP has submitted the following information:

- The wildlife conservation plan (WCP) has been approved by DCF, Nagaur and CCF Ajmer and forwarded to the Chief Wildlife Warden (CWLW), Jaipur, Rajasthan on 28-01-2020 for further necessary action. PP has also deposited Rs. 12.018 Lakh (20% of total amount) in RPACS account as financial outlay of the WCP as advised by CWLW vide letter dated 15-10-2019. The chronology of correspondence with State Forest Department is enclosed as **Annexure-2** to the letter.
- The file could not be processed at CWLW office during the lockdown caused due to COVID-19 pandemic.

- Now, the Chief Wildlife Warden, Rajasthan vide letter dated 18-05-2020 (copy of the letter enclosed as **Annexure-2a** to the letter) has asked PP to revise the outlay of the WCP which shall be calculated as per formula -1 of the CWLW, Rajasthan guidelines. As per this formula, the outlay of the WCP works out to be Rs. 250 Lakh. PP has accordingly revised the outlay for Rs. 250 Lakh and has deposited the balance amount of Rs. 37.982 Lakh (balance amount of 20%) in RPACS amount as advised by CWLW. Payment transfer details are enclosed as **Annexure-2b** to the letter.
- The WCP with revised outlay has been submitted to CWLW on 11-06-2020 (copy of the letter enclosed as **Annexure-2c** to the letter). However, it has to be again routed through DFO, Nagaur and CCF, Ajmer before it is forwarded to Chief Wildlife Warden for issuing final approval which, under current circumstances of COVID 19, may take around 2-3 months.
- It is to be submitted that with the upfront payment of 20% of financial outlay, the WCP has in-principle approval by the CWLW. PP will submit the final approval of CWLW to MoEF&CC in due course.
- The outlay of WCP, i.e. Rs. 250 Lakh has been included in the project cost and the same has accordingly been revised.

iii. NoC from CGWA for ground water withdrawal of 200 KLD shall be submitted.

Submission of PP: PP has stated that they have applied for NoC to CGWA on 30-01-2019. So far CGWA has not processed their application as it has been informed that issuance of Groundwater abstraction in critical, semi-critical and overexploited areas has been kept on hold as per directions of Hon'ble NGT. Screenshot of the CGWA web page is presented by PP in its letter.

- PP has enclosed copy of the application submitted to CGWA as **Annexure-3** to the letter.
- Meanwhile PP has reported that they have also applied to RSMML (Rajasthan State Mines & Minerals Ltd.) for use of 10 MLD brackish water available in their Lignite mine located at a distance of 22 km from our mine site. RSMML is willing to supply the brackish water for mining and industrial units. PP has already submitted its Expression of Interest (EOI) to RSMML for taking brackish water from their Lignite mine. Copy of the EOI submitted to RSMML is enclosed as **Annexure-3a** to the letter.
- The treated brackish water will be brought to its plant and mines through pipeline.
- Additionally, PP has also proposed to develop rainwater harvesting (RWH) pits inside the mine lease area. These RWH pits will be developed in the first year of mine operation and the harvested water will be used for dust suppression, plantation etc.

iv. Action plan substitution of grazing land with along with location of the compensatory land and budget provision shall be provided.

Submission of PP: PP has stated that:

- As per Rajasthan Tenancy (Government) Rules, 1955, the alternate grazing land is to be purchased in the same village or in nearby village in the same Panchayat and be surrendered to the Govt. PP has

already allocated a budget of Rs. 2.97 Crore towards purchase and development of alternate grazing land. However, despite their best efforts they could not identify a single stretch of Khatedari land of equivalent area of 8.95 Ha in the same village or in nearby village in the same Panchayat for surrendering to the State Government as per the statutory requirement. It is further submitted that most of the land in the village is mineral bearing land and has been notified for separate auction blocks.

- In view of the above, PP has decided not to disturb the grazing land till the end of mine life. PP has also submitted a letter of this effect to the Mining Deptt, Udaipur, Rajasthan for reducing the total area from 470 ha to 461.05 ha by excluding the grazing land of extent 8.95 ha. Copy of the said letter is enclosed as **Annexure-4** to the report.
- Presently, PP has also not proposed mining in the grazing land and accordingly left a 7.5 m safety barrier along the grazing land and grazing of cattle in this land parcel will continue as per existing practice. Company has requested the state Government for exclusion of grazing land from granted LOI area. Further, they also undertake that no mining has been planned in the grazing land and no mining operations will be undertaken in grazing land and adequate safety barriers will be maintained between grazing and mining area throughout the mine life. Proper fencing will be done surrounding the grazing land in East, North and West directions to prevent cattle from going inside the working area.

v. The details on action plan for exploration; backfilling/reclamation plan; life of mine as on date as per the approved mine plan; Green belt / plantation need to be submitted.

Submission of PP: PP has submitted the following information:

- **Exploration Plan:** The entire area is proposed for exploration at 200 m grid interval in the first two years of start of mining. Total 106 nos of holes are proposed to be drilled to a depth of 50 m & 100 m. Out of the total 106 nos of holes, 102 holes are proposed to a depth of 50 m whereas 4 holes to a depth of 100 m. All the holes will be vertical. Once the mining reaches the present proved depth of mineralization, few bore holes will be further drilled from pit floor to ascertain the continuation of mineralization in depth. Detailed Action Plan for Exploration is enclosed as **Annexure-5a** to the letter and geological plan showing proposed bore holes is enclosed as **Annexure-5b** to the letter.
- **Reclamation Plan:** The waste generation is anticipated during the life of mine due to poor recovery of core in this lease area. The mined out area will be backfilled by 76% of waste material. The programme of back filling of mined out area will start from 8th year onwards. At the end of the mine life, total 164.92 ha. of mined out area will be backfilled. Detailed reclamation/ backfilling plan is enclosed as **Annexure-5c** to the letter.
- **Greenbelt Plan:** At the end of life of mine, Green belt development / Plantation will be done over 9.70 ha along 7.5m barrier zone, 62.72 ha. over barren land (total 72.420 ha.) and 6.080 ha. over mined out benches and 164.92 ha over back filled dump areas. The total plantation will cover an area 243.42 ha. Detailed Greenbelt Plan is enclosed as **Annexure-5d** to the letter.
- **Life of Mine:** Life of Mine as on date as per approved mining plan is 14 years and the details are provided in **Annexure-5e** to the letter.

- vi. PP shall submit the plan for re-handling of waste and have this activity consider for impact prediction shall be indicated.**

Submission of PP: PP has submitted the following information:

- Total 4.408 million cum of waste per year will be re-handled from waste dump from 8th to 12th years. Year wise plan for re-handling of waste is enclosed as Annexure-6.
- The Re-handling of waste has been considered in impact prediction. Due to poor recovery of material, provision for temporary dump along south west side of Sarasani Village near boundary pillar 'P' and 'Q' has been kept. Waste dump is located within the Ultimate pit limit. Distance between the waste dump and 5-year working is about 50-100 m. Waste from excavated area will be temporarily dumped till 7th year in said location and will be handled since 8th year onwards. All the emissions due to dump handling will be confined in mine pit and explained through the map submitted by PP showing location of waste dump and working area.
- PP has further stated that the Re-handling of waste has already been considered in impact prediction and combined incremental values were found due to all mining activities as 4.05 µg/m³ (PM10), 1.59 µg/m³ (PM2.5), 1.80 µg/m³ (SO₂) and 2.44 µg/m³ (NO₂).

- vii. Location of the crusher: It was informed that the crusher will be located outside the ML area in the adjoining lease of the same proponent. In case of the non-execution of the proposed plan, the alternate action plan for locating the crusher inside the ML shall be clearly brought out.**

Submission of PP: Crusher shall be installed on the northern boundary inside the mine lease, i.e. 3B2, 470 ha. Details of crusher are as follows:

- (a) Capacity of Crusher: 1200 TPH
- (b) Location coordinates of Crusher: PP has stated that they have shifted the location of crusher from earlier location (adjoining lease) to within mine lease area, i.e. 3B2 Mine. Corner coordinates of present crusher location are given below:

A - 27 15' 56.91" N, 73 54' 25.74" E

B - 27 15' 56.91" N, 73 54' 27.08" E

C - 27 15' 55.74" N, 73 54' 27.07" E

D - 27 15' 55.73" N, 73 54' 25.75" E

Proposed new location of crusher is marked in Conceptual Plan (3B2 mine) enclosed as **Annexure-7** to the letter.

- (c) Area required for crusher - 0.33 acre (0.14 ha) (dimensions 36.5 m x 37.3 m) of area is required for installation of Crusher.
- (d) Crushing Process: ROM limestone input feed size will be approx. 1000 mm. ROM will be unloaded in a RCC hopper of 150 cum capacity with low level sensor. The design of the hopper shall be suitable for three side dumping with a mist fog type dust suppression system. A heavy duty Apron Feeder with Scraper Conveyor will be located below the RCC hopper. Apron feeder will be designed to extract and feed the hopper material to wobbler feeder. The undersized from wobbler feeder will be fed to a short

belt conveyor and the oversize of the Wobbler will be fed to the impactor for size reduction to less than 50 mm to render it suitable for feeding to the grinding system. Chain curtains will be provided after the Apron Feeder and the wobbler to impede the impact on the crusher rotor. The final product will be discharged onto the product conveyor and subsequently led by a covered conveyor to the Limestone stockpile in the proposed cement plant.

(e) Proposed Air Pollution Control Systems:

- i. Mist Fog sprinkler at dump hopper
- ii. Main Bag filter (1 No.) with capacity 75,000 M3/Hr
- iii. Auxiliary bag filters (2 nos.) at transfer points each of capacity 10,000 M3/Hr
- iv. Water sprinkler at belt conveyor

(f) Capital Cost of Crusher: Rs.15 Crores (including pollution control equipment and other accessories)

(g) Manpower requirement for Crusher Operation and Maintenance:

Post	Qualification	Gener al Shift	Shift		
			I	II	III
Crusher In charge	Diploma/ degree in Mech. Engineering	1	-	-	-
Asst. Manager	Diploma/ degree in Mech. Engineering	-	1	1	1
Jr. Manager	Diploma/ degree in Mech. Engineering	-	1	1	1
Engineer E&I	Degree in Mech. Engg.	1	-	-	-
Engineer/ Asst. Engr	Degree in Mech. Engg.	1	-	-	-
Crusher operator & Assistant	Diploma in Mech. Engg. /ITI trained Operator		3	3	3
Skilled/ Semi-skilled workmen	-	1	1	1	1
	Sub-total	4	6	6	6
	Total		22		

viii. PP shall clearly indicate the time bound action plan for skill development as per the issues raised in PH.

Submission of PP:

Time bound action plan for skill development as per the issues raised in PH-

JSW Skills School, an initiative of JSW Group, aims to improve the employability of the youth and women by offering industry-centric courses for vocational skill enhancement. This is achieved through facilitation of infrastructure and development and up-gradation of teaching tools of Governments' facilitated Training Institutes across India.

1. Plan for Skill Development

- Partnering with State government for imparting training to eligible and aspirant youth under any of the state and central government's schemes such as Rajasthan Mission on Skill & livelihood (RMoL), Rajasthan rural livelihood Project (RRLP) and Rajasthan GrameenAajeevikaVikasParishad (RGAVP), DeenDayalUpadhyayGrammenKaushalYojna (DDU GMKY), Pradhan MantriKaushalVikasYojna (PMKVY), MukhyaMantriYuvaKaushalYojna (MMYKY) etc.
- Partnering with reputed brand automobile service centers for field training
- Development of infrastructure (skill/ training center, training equipment/lab, utilities etc.), signing MoU with state government and engaging training partners
- Imparting skill development training at our own skill & vocational centres/workshop or at government facilitated training centres in the following fields (max. 3 months for each course except ITI which is for 2 years' duration):

S. No.	Proposed training Courses based on need based survey	Candidates Nos/ year	Total Nos. in 3 years
1.	Automotive Service Technician (2&3 Wheelers)	10	30
2.	Automotive Service Technician (Level-3)	10	30
3.	Car Washer and Assistant Service technician	10	30
4.	Field Technician - Computing and Peripherals	30	90
5.	Tailoring and handicraft training for ladies	30	90
6.	Sprinkler and drip irrigation	30	90
7.	Field technician – home appliances	20	60
8.	Accounts & Tax Assistant	20	60
9.	Sponsoring eligible youth for specific trades at govt. ITI centres	10	60
Grand Total			480

2. Monitoring of effectiveness of Skill Development Programme

Impact assessment shall be done by a third party based on the following parameters:

- Number/registrations of youth interested in skilling
- Number of youth registered in training programmes
- Number of youth assessed and certified by independent /government agencies (in whose partnership, we intend to conduct the SD programs)
- Budget allocated v/s budget spent on skill development
- Placement rate/ Number of skilled persons employed anywhere in India
- Percentage of skilled youth who are self employed
- Percentage of socially disadvantaged/ underprivileged groups enrolled in training programmes

- Percentage of socially disadvantaged/ underprivileged groups engaged in self-employment.
- Institute Awards for young achievers (for both men and women entrepreneurs separately) at local and district levels to recognize the achievements of entrepreneurs below the age of 30 years.

3. Budget for infrastructure development (incl. equipment) and other expenses:

Sl. No.	Items	Year wise budget (INR Lakh)		
		I Year	II Year	III Year
1.	Infrastructure for 2 nos. of SDCs & labs with furniture, ACs, Biometric attendance systems etc.	12.0	12.0	12.0
2.	Computers, Sewing Machines 10 Nos	4.0	-	-
3.	Uniforms & accessories, 500 nos.	3.0	1.0	1.0
4.	Fee & other expenses for ITI (30 candidates)	3.0	3.0	3.0
5.	Project monitoring cost	1.0	1.0	1.0
6.	Misc. expenses	1.0	1.0	1.0
	Total	24.0	18.0	18.0
	Grand Total (in 3 years)	60.0		

Company will coordinate with Rajasthan Skill Development and Livelihood Corporation (RSLDC) for placement of candidates after successful completion of skill development trainings. Company may also offer job opportunities to the trained and skilled candidates based on job availability in the relevant area. CSR team will help and support the skilled candidates for self-employment.

ix. Details of khasra/survey number shall be submitted.

Submission of PP: Details of Khasra/ Survey Nos is enclosed as **Annexure-8**, summary of all khasras as **Annexure-8a** and the details of Jamabandi (Revenue records) is enclosed as **Annexure-8b** to the letter.

Other submissions:

As a result of changes in project related activities, the details of corresponding changes are as follows:

- Increase in Project Cost and CER Budget:** The overall project cost has increased due to the following reasons:
 - Inclusion of Crusher in mine lease area,
 - Provision for purchase of full khasra land (incl. partial land area of khasras falling outside mine lease area),
 - Increase in R&R budget
 - Increase in cost of implementation of Wildlife Conservation Plan (WCP),

The overall project cost has thus increased from INR 131.55 Crore to INR 166.45 and correspondingly, the CER budget has also been increased from INR 2.50 Crore to INR 3.0 Crore. Details of revised project cost and CER budget are given in **Annexure-9** to the letter.

ii. Increase in Manpower due to inclusion of Crusher in mine lease area:

S. No.	Designation	Earlier Numbers	Revised Numbers
Managers/Officers			
1.	First Class Mine Manager	01	01
2.	Assistant Mine Manager	02	02
3.	Mining Engineer	01	01
4.	Blasting Engineer	01	01
5.	Asst. Manager Geology	01	01
6.	Mine Foreman	06	06
7.	Mechanical Engineer	02	02
8.	Environmental Engineer	01	01
9.	Crusher In-charge	-	01
10.	Asstt. Manager (for Crusher)	-	03
11.	Jr. Manager (for Crusher)	-	03
12.	Engineer (E&I) for Crusher	-	01
13.	Engineer/ Asstt. Engr. (for Crusher)	-	01
Workmen (Skilled/Semi-skilled/Unskilled)			
i.	Electrician / Mechanic	02	02
i.	Crusher Operators & Assistants	-	09
ii.	Driller	10	10
v.	HEMM Operators	15	15
v.	Blaster	02	02
i.	Drivers	60	60
ii.	Helpers	60	64
ii.	Misc. Work	10	10
Grand total		174	196

23. After detailed deliberations on the reply to the ADS submitted by the PP and presentation made by the consultant, the Expert Appraisal Committee observed the following:

- i. The mine plan has been prepared based on the general exploration. The entire area is proposed for exploration at 200 m grid interval in the **first two years of start of mining**. Total 106 nos of holes are proposed to be drilled to a depth of 50 m & 100 m. Out of the total 106 nos of holes, 102 holes are proposed to a depth of 50 m whereas 4 holes to a depth of 100 m. The committee is of the opinion that the entire mining parameters including mining scheme and sequence. Therefore, the appraisal made based on the present mining plan become infructuous. Further, since the ML is an auction block, the detailed exploration (G1 level) is not permitted before commencement of mining. In order to facilitate for commencement of operations of the mining and exploration, the committee has recommended for grant of environmental clearance for a period of two years and the PP may approach the ministry with complete detailed exploration and revised mining plan, if any, for re-validation / extension of the validity of the environmental clearance. The project proponent has agreed for the same during the presentation.
- ii. Since, the PP has not proposed mining in the grazing land and accordingly left a 7.5 m safety barrier along the grazing land and grazing of cattle in this land parcel will continue as per existing practice. Further, the company has requested the State Government for exclusion of grazing land from granted LOI area. In this regard, the committee advised either the PP get excluded the grazing land from the ML area or as proposed by the PP, no mining operations shall be undertaken in grazing land and adequate safety barriers will be maintained between grazing and mining area throughout the mine life. Proper fencing shall be done surrounding the grazing land in East, North and West directions to prevent cattle from going inside the working area and free access for grazing.

- iii. In respect of the withdrawal of water, the project proponent submitted the application in before CGWA but it was pending and meanwhile, it was reported that M/s JSW has also applied to RSMML (Rajasthan State Mines & Minerals Ltd.) for use of 10 MLD brackish water available in their Lignite mine located at a distance of 22 km from our mine site. It was proposed to draw the water through a pipeline. The committee agreed to sue the brackish water supplied by the RSMML. However, the PP shall establish necessary facilities for measurement, treatment and monitoring. The PP may be allowed to withdraw and/or intersect the groundwater table, only after permission from the CGWA.
- iv. The PP shall implement site specific conservation plan for wildlife in consultation with the state forest department with proposed budget.

24. The committee, after detailed deliberations based on the documents, presentation made before the committee and discussions with the PP and Consultant during the presentation, **recommended** for grant of prior environmental clearance, for Mining of Limestone for production of 3.8 Million TPA of Limestone, 4.887 Million m³ per Annum of waste and topsoil from mining area of 470.00 Ha located at Village- Sarasam, Tehsil- Nagaur, District: Nagaur, Rajasthan, for a period of two years from the date of execution of mining lease with following specific conditions in addition to the standard conditions applicable to non-coal mining. The committee also suggested to approach the ministry with complete detailed exploration and revised mining plan, if any, for re-validation / extension of the validity of the environmental clearance within the two years from the date of execution of Mining Lease.

- i. The grazing land may be excluded from the ML area or no mining operations shall be undertaken in grazing land and adequate safety barriers shall be maintained between grazing and mining area throughout the mine life. Proper fencing shall be done surrounding the grazing land in East, North and West directions to prevent cattle from going inside the working area and free access for grazing.
- ii. The PP shall establish necessary facilities for measurement, treatment and monitoring. The PP shall be allowed to withdraw and/or intersect the groundwater table, only after permission from the CGWA.
- iii. The project proponent shall implement site specific conservation plan for Schedule-I species namely, Indian Peafowl (*Pavocristatus*), Chinkara (*Gazellabennettii*) and Monitor Lizard (*Varanus bengalensis*) in consultation with the State Forest Department with proposed budget of Rs. 250 Lakhs, as per the recommendation of the Chief Wildlife warden.
- iv. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, inter alia, including plantation all along the boundary (Safety zone-9.70 Ha) of the mining lease shall be completed in 2 years of commencement of mining operations with a saplings of native and broad leaved species of not less than 12 feet, record keeping, gap plantation and grassing as per the directions of the Hon'ble Supreme Court.
- v. The project proponent shall implement the commitments made on the issues raised in PH and activities proposed under CER, 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.
- vi. Transportation of limestone from mine site to crusher through internal road and then to proposed Cement Plant through Covered Conveyor Belt System (tentative distance of plant from mine is ~5 km) and for trading by tippers through public roads.

- vii. Total excavation shall not be exceeded 15.948 MTPA, inter alia, including Limestone Production Capacity 3.8 Million TPA, waste 12.03 MTPA and Topsoil 0.118 MTPA.
- viii. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.
- ix. 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.

2.5 Expansion of Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production with 3.42 Million TPA, Interburden & Overburden and 0.96 Million TPA Top Soil (ML No. 38/2007, ML. Area 531.26 ha) and crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh (Proposal No: IA/CG/MIN/93467/2017; File No: J-11015/07/2018-IA. II(M); Consultant: J. M. EnviroNet Pvt. Ltd)-Consideration of EC

1. The proposal of M/s Shree Cement Ltd. is for environmental clearance for expansion of Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production with total excavation of 15.44 MTPA (11.06 MTPA Limestone, 3.42 Million TPA, Interburden & Overburden and 0.96 Million TPA Top Soil) from (ML No. 38/2007, ML. Area 531.126 ha) and installation of crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh. The mine lease area is bounded between latitudes of 21°34'36" N to 21° 37' 06" N and longitudes of 82° 03' 12" E to 82° 06' 12" E on Survey of India Topo-sheet No. F44Q2 & F44P14. The project is located in Seismic zone-II.

Observation of EAC: *The Committee observed that the total excavation mentioned in the Form-1 is 15.22 MTPA (11.06 MTPA of Limestone & 4.16 MTPA of Interburden & Overburden excluding top soil). Further, in the ToR issued by the Ministry it has mentioned that maximum ROM quantity for the 5-year plan period as **14.72 million TPA**. Accordingly, the PP shall revise ROM quantity from 15.22 Million TPA to 14.72 Million TPA. In the Form-II submitted by the PP the total excavation is mentioned as 15.44 MTPA (11.06 MTPA Limestone, 3.42 Million TPA, Interburden & Overburden and 0.96 Million TPA Top Soil). The Committee observed that as per approved mining plan to achieve the maximum production of 11.06 MTPA of limestone the total excavation is 14.32 MTPA [P.890/c & P.897/c]. Therefore, keeping difference in view, the committee recommended the total excavation from the mines shall not be more than 14.72 MTPA including 11.06 MTPA of limestone, as per the approved Terms of Reference.*

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 submitted that the Ministry has accorded environmental clearance to M/s. Shree Cement for the mine lease area of 531.126 ha vide letter no. J-11015/159/2014-IA-II (M) dated 30th March 2017 for limestone production with capacity from 4.8 MTPA to 8.6 MTPA. PP then applied for ToR vide proposal No IA/CG/MIN/71839/2017 dated 26.12.2017 for expansion in production capacity from 8.6 MTPA to 11.06 MTPA and submitted Form-1 & PFR. The proposal of TOR was recommended by Expert Appraisal Committee in its meeting held during January 18-19, 2018 and TOR letter was issued by the Ministry vide letter

no. J-11015/07/2018-IA-II (M) dated 6th February 2018. The PP after conducting Public Hearing applied in Form-II for EC, vide Proposal No: IA/CG/MIN/93467/2017 dated 14.03.2019 and submitted the EIA/EMP Report online to the Ministry. The proposal was placed in EAC meeting held during April 23-24, 2019 wherein the Committee deferred the proposal for want of requisite information. PP submitted the information online on 30.06.2020 and the proposal is now placed in EAC meeting held during 22-24 July, 2020.

Observation of EAC: *The Committee previously observed that PP presented point-wise compliance of stipulated TOR; however, the Committee felt that few of the points have been responded in very generic terms. On specific query the PP was providing necessary information, however, the submission made were not adequately represented. PP needs to submit the compliance of TOR in more specific way.*

PP in its reply dated 30.06.2020 mentioned that detailed compliance of ToR has been made.

4. The PP submitted that the mine lease over an area of 531.126 ha was granted in favor of Shree Cement Limited vide the Government order no. F2/32/2003/12 (3) dated 25.03.2008. The lease was executed on 11.01.2011 for a period of thirty years from 11.01.2011 to 10.01.2041. In pursuant MMDR Amendment Ordinance dated 12.01.2015 the validity of the lease was extended till **10.01.2061** and the amendment to the mining lease agreement dated 11.01.2011 has been made on 14.07.2016 in Non-Judicial e-stamp paper bearing Certificate No. IN-CG03525267438871O dated 21.06.2016 followed by India non judicial stamp vide Certificate No. H 655113 – H 655115. The PP submitted that the total mine lease area is 531.126 ha. Out of 531.126 ha, 78.722 ha is a Government land and 452.404 ha is a private agriculture land. Out of 452.404 ha, 449.846 ha is under possession of Shree Cement Ltd. and the remaining 2.558 ha is a private agriculture land which will be purchased on mutual agreement in due course. The PP further submitted that the total mining lease is divided into 4 blocks; Block 1, 2 & 3 falls under excavated area and block 4 which is non-mineralised which covered under Township & Plantation area.

Observation of EAC: *The Committee previously asked that total mine lease area is 531.126 ha. Out of 531.126 ha, 78.722 ha is a Government land and 452.404 ha is a private agriculture land. Out of 452.404 ha, 449.846 ha is under possession of Shree Cement Ltd. and PP submitted that the remaining 2.558 ha is private agriculture land which will be purchased on mutual agreement in due course. PP needs to clarify the present status of the land possession and timeline for conversion of agricultural land to mining land.*

PP vide its letter No. SCL/EC/Bharuwadih & Semradih/2020-21 dated 30.06.2020 submitted that the total Mining lease area is 531.126 ha which falls at villages Semradih and Bharuwadih. Out of total mining lease area of 531.126 ha, 78.722ha is Government land. The State Government has allotted 52.274 ha for mining purpose to the PP. In the rest 452.404 ha area, 449.846 ha is the land owned by SCL (PP) for mining activity while 2.558 ha is private agriculture land which will be acquired by company in due course.

Madhya Pradesh Government's revenue department has issued an order vide its letter no. 1689/213618/89 dated 19.12.1989 clarifying that there is no need for conversion of agricultural land in case of land under granted mining lease. Accordingly, as the mining lease over an area of 531.126 ha was granted in favor of Shree Cement Limited for Mining purpose, there is no requirement of conversion of agricultural land to mining land. There is no change in present status of the land possession.

Observation of EAC: *The Committee observed that PP previously submitted that out of 78.722 Ha governments land the permission for mining was granted by collector over an area of 52.274 Ha area and there was restriction on balance area.*

Thereafter, Collector, Balodabazar vide his order dated 21.01.2019 cancelled the permission granted over 52.274 Ha also. But finally the Commissioner, Raipur vide its order dated 17.06.2020 cancelled the Collector letter dated 21.01.2019 and allowed mining on entire government land.

5. The modified mining plan with progressive mine closure plan has been approved by Regional Controller of Mines (Raipur Region), IBM, Raipur vide letter no. Balodabazar/Chup/MP-1125/2017/777-Raipur dated 30/11/2017.

Observation of EAC: *The Committee observed that the PP in the approved mining plan submitted that the land use pattern at the ultimate period will comprise of 389.2 ha area under excavation, 21 ha area under plantation on overburden dumps, 22 ha under township area and 21.126 ha will remain undisturbed. Further, after reclamation the land use at conceptual stage will be total excavated area will be 389.2 ha out of which 319.2 ha area will be converted into water body and 70 ha area will be backfilled. About 21 ha area will be covered under waste dump and total greenbelt/Plantation will be done on 176 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area, 9.3 ha on 7.5 m barrier zone & 68.5 ha on virgin area). Total 21.126 ha will remain undisturbed.*

6. PP submitted that the mining operations are being carried out by mechanized opencast mining method i.e. by combination of shovel and dumper with drilling and blasting. Bench height and bench width is being maintained at 12 m and 30 m (working width) respectively. Drilling is being carried out by crawler mounted DTH hammer Drill machine. Conventional blasting is being done using ANFO and high explosives with use of shock tube detonator. Loading is being done by hydraulic excavators and transport of limestone and OB/IB is being done by dumper to crusher (located in mining lease area). The crushed limestone is being transported from the mine site to cement plant by covered conveyor belt. The same mining method will be used in future for the proposed expansion in mining project. The PP further submitted that two crushers of 1200 TPH production capacity has already been installed within the mine Lease area of 531.126 ha. Secondary crusher of 2x450 TPH will be installed. In the crusher feed size of the mineral will be 1.25 m and output size of the mineral will be -90 mm.

The PP submitted that the total minable reserves for are 208.9 Million tonne. Life of mine will be 20 years. At the end of life of mine, total 79.29 Million tonnes waste will be generated. Maximum amount of waste will be backfilled in the excavated area and plantation will be done over it after spreading top soil over it and remaining waste will be dumped which will be stabilized by plantation later. PP further submitted that there will be no overburden dump outside mining lease area.

Observation of EAC: *The Committee observed that there are habitation near the mining lease and the steps to be taken by PP for protection of the same.*

The PP vide its letter dated 22.07.2020 mentioned that the limestone at the shree Limestone Mine is of sedimentary origin. The Compressive strength of this limestone is in the range of 25 MPa to 45 MPa which is medium hard in nature. The Limestone of this compressive strength can be excavated by deploying Non-Conventional Mining methods which break the rock without use of blasting. PP submitted that Non-Conventional Mining methods such as i) Primary Breaking through Rock Breaker and Terminator, ii) Ripper attached to excavator and separate giant ripper & iii) Use of Surface Miner etc. are available which can be used for breaking and excavation of mineral. Out of these method, surface Miner is successful in soft to less hard rocks while other two methods are used in medium to hard rocks. Therefore, use of Primary Breaker and Giant Rippers is ideal for the type of limestone occurring in this mine.

Observation of EAC: *The Committee is of the view that PP has proposed to use non-conventional method of mining within 100 meters of the habitation. The*

Committee also observed that in the mining plan PP has mentioned about the use of wobbler but the application is only made in schedule 1(a) 'Mining of Minerals' therefore installation of wobbler is not permitted.

7. The PP further submitted that the proposed raw water requirement for the mine project is 300 KLD [Dust Suppression (250 KLD), Drinking & Utility (15 KLD), HEMM Washing (35 KLD) and Green belt/plantation (From Colony STP)] for mine and 500 KLD for colony, which will be sourced from ground water (for drinking purpose) and from mine pit (for other activities). PP has submitted that According to groundwater monitoring Water level in core zone varies from 262 to 257 m AMSL (5 to 10 mbgl) in Pre Monsoon and 264 to 268 m AMSL (8 to 4 mbgl) and 264 to 262 m AMSL (3 to 5 mbgl) in Post Monsoon season. Present working depth of mining is 242 AMSL (30 mbgl) and Ultimate working depth of the mining operation will be 192 m AMSL (80 mbgl). PP has submitted that as per the mining details, water table has already been intersected due to the mining activities and permission for the same has already been obtained from CGWA vide letter no. 21-4(36)/NCCR/CGWA/2008-569 dated: 08.04.2015 & amended vide letter no. 21-4 (36)/ NCCR/CGWA/2008-1270 dated 06.08.2015. Renewal of NOC has been received from CGWA Department vide letter no. 21-4(36)/NCCR/CGWA/2008-2079 dated: 24.10.2018. The renewed NOC is valid from 08.04.2018 to 07.04.2023. PP submitted that no waste water is being / will be generated from the mining activities. Septic tanks and soak pit is being / will be provided for the disposal of domestic waste water generated from mine office. Waste water generated from washing of HEMM is being / will be used in crusher for dust suppression after oil and grease separation. Garland drains along with Retaining walls having water holes at the toe of temporary dumps are being / will be constructed to avoid the soil wash out & around the mine pit to prevent surface run off entering into the mine pit. Domestic wastewater from colony will be treated in already proposed STP at plant site of capacity 500 KLD and treated water will be used in plantation. Periodical Ground water level & quality monitoring is being / will be carried out.

8. PP has submitted that at present, total 56.35 ha area with 139186 no of plants has been covered under Green belt. Green belt has been developed along the Mining Lease boundary. At the end of life of mine Plantation will be done on 176.7 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area). The total saplings planted will be 440000. Plants have been/ will be planted with @ 2500 saplings per hectare of land. At Present, Babul (Acacia Arabica), Safed siris (Albizziaprocera), Sisam (Dalbergialatifolia), Neem (Azadirachta indica), Gulmohar (Delonix regia), Subabul (Laucaenaleucocephala), Cassia semiya, Copperpod (Peltaphorum), Karanj (Derris indica), Mahaneem (Maliaazedarachta), Bamboo plant (Bambusadendrocalmus) Species have been planted. Species proposed for plantation Babul (Acacia Arabica), Safed siris (Albizziaprocera), Sisam (Dalbergialatifolia), Neem (Azadirachta indica), Gulmohar (Delonix regia), Subabul (Laucaenaleucocephala), Cassia semiya, Copperpod (Peltaphorum), Karanj (Derris indica), Mahaneem (Maliaazedarachta), Bamboo plant (Bambusadendrocalmus). The plant species selected for green belt are local and native plant species, have greater ecological value and are of good utility value to the local population. These species are also tolerant to pollution. Local Species have been/ will be selected with consultation of local forest dept. Time bound Progressive Greenbelt Development Plan and plantation program in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) has been prepared. The budget proposed for Green belt (Mine & Colony) includes total Capital cost of Rs. 85 Lakhs and annual recurring cost of Rs. 15 Lakhs.

Observation of EAC: The Committee previously observed that the presented photograph suggests that the present plantation is very thin and require comprehensive efforts to increase sustainable green coverage in the mine area. Accordingly, PP advised to submit a forestation plan.

PP in its reply dated 30.06.2020 submitted that i) As on 31.05.2020, total 72.95 ha areas with 180686 no. of plants have been covered under plantation. Green belt has been developed along the Mining Lease boundary, ii) Plants have been/will be planted with @ 2500 saplings per hectare of land. At present till May, 2020 total 180686 plants have been planted on 72.95 ha area, iii) Location: - Along boundary wall Near Semradih / Champa & Bharuwadih villages, near Canal area, Line-II Crusher area, BC 06 & 07 area, iv) At the end of life of mine Plantation will be done on 176.0 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area), v) At the end of life of mine Plantation will be done on 176.0 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area), vi) Species selected for green belt/plantation have been/will be Babul (*Acacia Arabica*), Safed siris (*Albizziaprocera*), Sisam (*Dalbergialatifolia*), Neem (*Azadirachtaindica*), Gulmohar (*Delonixregia*), Subabul (*Laucaenaleucocephala*), Cassia semiya, Copperpod (*Peltaphorum*), Karanj (*Derris indica*), Mahaneem (*Maliaazedarachta*), Bamboo plant (*Bambusadendrocalmus*), Humata Grass, vii) The above mentioned plant species have greater ecological value and are of good utility value to the local population. These species are also tolerant to pollution. PP also submitted the plantation photographs. In addition to above PP submitted the following cumulative plan.

PP has submitted a cumulative plantation plan wherein the PP has reported that it has planted 180686 saplings covering 72.95 ha upto May 2020. Further, during the period from **2020 to 2025**, PP has proposed to plant a total of **47500 saplings in an area of 19 ha** [Virgin Area (5000 saplings in 2 ha), Backfilled Area (37500 saplings in 15 ha), Waste Dumps (Nil), Township Area (5000 saplings in 2 ha)]. During the period from **2025 to 2030**, it has been proposed to plant a total of **42500 saplings in an area of 17 ha** [Virgin Area (5000 saplings in 2 ha), Backfilled Area (37500 saplings in 15 ha), Waste Dumps (Nil), Township Area (Nil)]. During the period from **2030 to 2035**, it has been proposed to plant a total of **55000 saplings in an area of 22 ha** [Virgin Area (5000 saplings in 2 ha), Backfilled Area (50000 saplings in 20 ha), Waste Dumps (Nil), Township Area (Nil)]. Further, during the period from **2035 to end of mine**, it has been proposed to plant a total of **114314 saplings in an area of 45.05 ha** [Virgin Area (3814 saplings in 0.85 ha), Backfilled Area (50000 saplings in 20 ha), Waste Dumps (52500 saplings in 21 ha), Township Area (8000 saplings in 3.2 ha)]. Thus, as per the plan submitted by PP, **during total life of mine a total of 440000 saplings in an area of 176 ha** [Virgin Area (194500 saplings in 77.8 ha), Backfilled Area (175000 saplings in 70 ha), Waste Dumps (52500 saplings in 21 ha), Township Area (18000 saplings in 7.2 ha)] is proposed to be planted.

Further, PP vide its letter dated 24.07.2020 has submitted that the Mining Lease Area of 531.126 ha is divided in to 4 blocks. The greenbelt is being/will be developed along 7.5 m along the ML boundary. SCL has already covered 70% greenbelt along the ML boundary and plan to cover the remaining peripheral area under greenbelt within 1 year i.e. 2020-21. PP has submitted the greenbelt details along the periphery of the ML Boundary block-wise. The submission includes plantation of total of 32625 saplings covering an area of 13.05 ha [Block 1 (4250 saplings in 1.7 ha), Block 2 (1625 saplings in 1.7 ha), Block 3 (21000 saplings in 8.4 ha) and Block 4 (5750 saplings in 2.3 ha)]. SCL has covered 13.05 ha out of the total 18.04 ha under the greenbelt development along the periphery of the ML boundary. SCL has a planning to cover the remaining area of 5.07 ha (periphery) under greenbelt within 1 year i.e. 2020-2021. The plan for 2020-21 involves plantation of total of 12675 saplings covering an area of 5.07 ha [Block 1 (4250 saplings in 1.7 ha), Block 2 (1625 saplings in 0.65 ha), Block 3 (5300 saplings in 2.12 ha) and Block 4 (1500 saplings in 0.6 ha)]. PP has also reported that at present total of 72.95 ha areas with 180686 no. of plants have been covered under greenbelt and plantation.

9. PP submitted that there is no forest land involved, however, Dhabadih Reserved Forest is 0.25 Km (250 m) in the north direction. PP submitted that

there is No National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger Reserves, exists within the study area (10 km radius from the lease boundary). Letter reg. the same has been obtained from forest department vide S. No/va.tha.aa./Mineral/1342 dated 17.04.2018.

Observation of EAC: *PP needs to submit NOC from competent authority of forest department that no forest land is involved in mine lease area and also the details of forest area in the vicinity of the project area. The letter needs to clearly mention the name and designation of the signing authority and also place the stamp of same signing authority.*

PP in its reply dated 30.06.2020 mentioned that No forest land falls within the lease area. Letter reg. the same has been obtained from Mr. Arun Kumar Pandey Principal Chief Conservator of Forest, Govt. of Chhattisgarh vide letter no. SL. No. Wildlife/Management-379/ 2291 dated 17.06.2020.

10. PP submitted that Detailed Study for the study area (core zone & buffer zone) has been conducted for the project. List of flora & fauna separately for core and buffer zone clearly indicating the Schedule of the fauna present has been authenticated from Forest department vide S. No/va.tha.aa./Mineral/1342 dated 17.04.2018. As per authenticated list of flora & Fauna, there is no endangered, endemic, Schedule –I Specie within the study area.

Observation of EAC: *The Committee previously asked that PP needs to submit the authenticated list of fauna and flora details by specifying their classifications from chief wildlife warden.*

PP in its reply dated 30.06.2020 submitted that there are 2 species of Schedule-I viz. Indian Rock Python (Pythodmolurus) & Indian Monitor Lizard (Varanus bengalensis). PP also submitted that the site specific Wild Life Conservation Plan has been prepared and approved from Mr. Rakesh Chaturvedi, the Principle Chief Conservator of Forest (Wildlife Management & Biodiversity Conservator) cum Chief Wildlife Warden, Chhattisgarh vide letter no. SL. No./WL/MGMT379/19/3451 dated on 21.06.2019. The budgetary allocation for the same is estimated 36.30 lakhs for 3 years is also approved in the above mentioned letter. Copy of the approval letter along with the conservation plan is also submitted by the PP. **PP also submitted** Letter from Principal Chief Conservator of Forest, Govt. of Chhattisgarh vide letter no. SL. No. Wildlife/Management-379/ 2291 dated 17.06.2020 regarding Schedule-I species.

11. The PP submitted that the baseline environment data on various components of environment in the study area were collected during post monsoon season (October 2017 to December 2017). The monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. The soil quality was observed to be slightly alkaline in nature. The air quality sampling was done continuously for 24 hours for SO₂, NO_x, PM₁₀, PM_{2.5} and CO with a frequency of twice a week for three months (26 observations for one location) at 15 locations which includes Plant Site, Mine Site, 500 m SW Direction from Plant Site and nearby villages. Sampling locations were selected for AAQ Monitoring keeping in view the pre-dominant wind direction prevailing in the area during the study period. It is observed from the wind rose diagram that the dominant wind direction prevailing in the area during the study period was North-East direction. The same 15 locations were selected for noise level monitoring. There are 8 surface water bodies present in the study area. Surface water samples were collected from 6 locations to know the surface water quality of the area; as remaining 3 are found dry during the study period. The ground water samples were collected and tested from 10 different sites.

Observation of EAC: *The Committee previously asked that i)PP to submit more comprehensive finding and analysis on vibration aspect arising due to mining*

activity and ii) The buffer zone to contain blasting effects was less than 500 m from the receptors. PP has to submit a comprehensive abatement plan to ensure that the concerns arising due to proposed blasting in critical zones are appropriately addressed.

PP in its reply dated 30.06.2020 submitted that the main cause for generation of vibrations is blasting. Blasting is essentially required to excavate limestone. In Shree Limestone Mine, limestone is found in compact, hard layers. Controlled Blasting is being/ will be done using ANFO and high explosives with use of milli second delay detonators/NONEL to limit the blast induced vibrations fly rocks and noise. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker. Blasting will be done during once in day time.

Measures adopted for controlled blasting so that vibrations can be controlled are as follows:

- Drilling and blasting is being/ will be carried out within 100-150-meter zone of village habitation with prior permission that will be obtained from DGMS and blasting study will be carried out.
- Vibration monitoring is being/ will be carried out for every blast to mitigate any adverse impact of blasting.
- Non-conventional mining method is being/ will be adopted to excavate limestone within 100m from village habitation.
- Beside this, Mining is being/will be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of (DGMS) and Conditions mentioned in DGMS guidelines will be followed strictly.
- Controlled blasting is being/will be carried out to reduce ground vibrations, air blast and peak particle velocity will be kept within permissible limit in order to control effect of vibration in the nearby area.
- All measures is being/will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats.

The existing blasting study reveals the following:

- The ground vibrations generated by blasting during the mining operations are well within prescribed limit of Director General Mines Safety (DGMS).
- Ground vibrations are under control by using optimum charge of explosive per delay.
- Fly rocks appear to be controlled in the study blasts.
- Regular vibration monitoring as per the existing practice to be continued in future & the maximum PPV & AOP will be kept within the prescribed limit of DGMS.
- Controlled blasting by latest blasting technique using shock tube detonator (Down line detonator in combination with noise less trunk line detonators.) is being practiced regularly at mine & advised to continue with the same.
- It is submitted that NONEL initiation system should be continued in the blasting operations.

- The sub grade drilling is being/will be 0.5 m for a blast hole depth of 12 to 13 m and explosives will be initiated from the bottom of the hole.

Regular ambient air quality monitoring and vibration monitoring is being/will be done. At each & every blasting time vibration monitoring is being/will be carried out. Monitoring is being/will be done by Micromate instrument. PP also submitted the Blast Vibrations Monitoring reports.

Details of Nearest Habitations from ML boundary & Mining Pit

S. No.	Nearest Habitation	Distance from the ML Boundary	Distance from the Present Pit	Distance from the Pit during the Plan Period	Distance from the Pit during the Conceptual Stage
1	Bharuwadih Village	~10 m	950m	300 m	125 m
2	Semradih Village	~250 m	500m	450 m	220 m
3	Champa Village	~ 550 m	1000m	820 m	800 m

There is no relation with increase of Production to vibration. As vibration level is related to charge per delay and not on production, so in case of increased production also, the charge per delay will be maintained same.

PP submitted that Blasting is being/ will be done using ANFO and high explosives with use of milli second delay detonators/NONEL to limit the throw of fly rocks and noise. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker. No secondary blasting is envisaged in this mine. Blasting will be done during day time. Blasting parameters which is being/will be used for blasting are as follows:

Drilling and Blasting Parameters

S. No.	Parameters	Dimensions
1.	Depth of Hole	12 meters
2.	Diameter of Holes	150-165mm
3.	Burden & Spacing (m)	4.0-5.0m 5.0-7.0m
4.	Stemming Column (m)	1/3 of the burden
5.	Subgrade drilling	0.5
6.	Charge of explosive per hole	90-100kg
7.	Powder Factor	7.70 tonnes/ kg
8.	Types of explosives used	Slurry explosives and ANFO
9.	Initiation	Bottom initiation by the use of down line detonator in combination of noise trunk line detonator on surface
10.	Number of Holes per round	50-60
11.	Blasting Frequency	6times in a week

Type & Storage of Explosives:

Slurry explosives and ANFO are being/ will be used for blasting. The Explosive is being/ will be stored in existing 4 nos. of Applicant's licensed magazine at non-mineralized Block 4 of the Mining Lease area.

Measures adopted for controlled blasting are as follows:

- ❖ Non-conventional mining methods will be adopted to excavate limestone within 100m from village habitation.
- ❖ Beside this, Mining will be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of (DGMS) and Conditions mentioned in DGMS guidelines will be followed strictly.
- ❖ Controlled blasting will be carried out to reduce air blast & ground Vibration and peak particle velocity will be kept within permissible limit in order to control effect of vibration in the nearby area.
- ❖ All measures will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats.

Observation of EAC: Committee previously observed that i) PP to submit the impact of mining on the ground water in more scientific way using appropriate ground water modelling and ii) PP needs to submit the findings of the hydrogeological study as per the provisions of the notification (i.e. from the recognized laboratory).

PP submitted that the groundwater in the area occurs under unconfined state with in the secondary porosity of limestone formations. The length of aquifer exposed and the depth of mine pit determines the area of aquifer exposure. The length is taken Maximum length /width in groundwater flow direction, the water table gradient has been evaluated from the water table map. The mine seepage has been computed for pre-monsoon and post monsoon period separately on yearly basis, the mine dimensions along with seepage computations. The mine plan dimensions in terms of length, width and RL values of depth of excavation is also provided. **The study area lies in the safe category according to the Ground Water Estimation Committee 2009.**

From the hydro-geological study report after reviewing the ground water modeling data, it is seen that there is no spring, public well, river or lake in the area of 1KM from the mining pits indicating that there will not be any influence of pumping water from the mining pits on any other sources. The radius of influence is the distance of zero drawdown which is about 1100 m at the maximum envisaged depth of mining of 80 m below ground level. In the post mining scenario when the pumping of ground water will cease, there bound of groundwater level is expected. In general, the initial rebound is fast and subsequently its gradient slows down. PP also submitted has submitted complete hydrogeological study report.

PP submitted that the detailed hydrological study has been carried out by Mr. Pavan Gupta NABET Approved FAE in Hydrology, groundwater and water conservation (HG) and Geology (Geo).

Observation of EAC: The Committee previously observed that the PP failed to provide information on input data used for air quality modelling for predication of GLC values. Therefore, the Committee asked to redo the modelling with cumulative input loads arising due to various activities.

PP submitted that theCumulative effect of both captive mines and expansion of cement plant with captive power plant has been estimated considering various activities and the emission factors of Drilling, Blasting, Loading & Unloading, transportation, crushing, dumping and other allied activities besides emissions from all the stacks of cement plants and captive power plant. Air Pollutant Dispersion Modeling has been carried by using AERMET View 8.2.0 and AERMOD View 8.2.0 – Model: AERMOD and concentrations have been predicted in all directions covering all types of weather conditions. Spatial distributions of all the pollutants are also presented in the form of Isopleths.

**GLC (Incremental & Resultant) for Different Scenarios Composite
for Integrated Cement Plant & Captive Mines**

Particular	Concentration (µg/m ³)			CPCB NAAQS Standards
	Baseline	Incremental	Resultant	
PM10	78.2	8.5	86.7	100
PM2.5	40.3	6.78	47.08	60
SO ₂	12.4	5.25	17.65	80
NO ₂	21.0	7.58	28.58	80

PP also submitted the detailed modelling report.

Observation of EAC: The topsoil management was not comprehensive. PP needs to submit the revised topsoil management details.

PP submitted that the total mining lease area is 531.126ha out of which 34.8 ha area already excavated before plan period, 144.0ha area as on operational period and 319.2 ha area at the end of life of mine. The topsoil generated is 0.104 million cubic meters during the year 2019-20. This Topsoil generated was used for plantation work. During the present remaining tenure of Modified Mining Plan Period 0.45 Million cubic meter top soil will be generated and 1.58 million cubic meter top soil will be generated at the end of mining plan period. At the end of life of mine, no top soil will be stacked. All the top soil encountered will be used for reclamation. The top soil is black in color. The excavated top soil will be used for plantation purpose within the mining lease area. The year wise top soil excavation details have been furnished in the table given below:

Existing Year wise top soil generation & management

SL. No.	Year	Top Soil	
		Generation (million cum)	Management (cum)
1.	2015-2016	0.2875	Plantation Done
2.	2016-2017	0.225	Plantation Done
3.	2017-2018	0.24375	Plantation Done
4.	2018-2019	0.114960	Plantation Done
5.	2019-2020	0.104	Plantation Done

Proposed Year wise top soil generation & management

SL. No.	Year	Top Soil	
		Excavated (million cum)	Management (million cum)
1.	2020-2021	0.06	0.03 will be partly stored as top soil stack & 0.03 will be partly used for Plantation

PP submitted that during the mine operation the top soil is being scrapped and collected by dozer and loaded into dumpers by hydraulic excavator and further transported simultaneously to plantation site. Rest of the top soil will be stacked temporarily on the non-mineralized zone and which will be later spread on the dumps for plantation. Retaining wall is being/will be provided around the soil till is used for plantation and later it will be spread over backfilled area and stabilized with the plantation.

PP submitted that Topsoil and other materials removed should be stockpiled only when it is impractical to promptly redistribute such materials. Garland Drain will be made all along Topsoil Stock. Stockpiled materials should be selectively placed

on a stable area (not disturbed), and protected from wind and water erosion, unnecessary compaction, and contaminants, which lessen the capability of the materials to support vegetation when redistributed.

Observation of EAC: PP to submit the pollution control measures proposed to deploy with the new crushers proposed to be installed.

PP submitted that two Crusher of 1200 TPH Production capacity has already been installed within the Mine Lease area of 531.126 ha. Two crushers of 450 TPH will be installed. Some of the pollution control measures proposed to deploy with the new crushers proposed to be installed is as follows:

Air Quality Management

- Bag Filters are being/will be provided with both the secondary crushers.
- Automatic water spray in crusher hopper and unloading point.
- Suitable enclosure for the conveyor system.
- Barrier in form of greenbelt all around in the vicinity of the crusher to trap fugitive dust.
- Dust masks are being/will be provided to the workers & operators working in dusty zones.
- Regular stack monitoring is being/will be done.

PP also submitted the Stack Emission Monitoring Report.

Noise Quality Management

- Insulators are being/ will be provided in the crusher to control the noise pollution.
- Use of Closed acoustic systems for controlling the noise within the crusher.
- Development of green belt/plantation in all around the vicinity of the crusher.

Observation of EAC: The Committee previously observed that PP needs to submit more information on preventive/precautionary measures proposed to avoid any free access to the voids/water body created as a result of mining.

PP submitted that at the conceptual stage of mining total excavated area will be 389.2 ha out of which 319.2 ha area will be converted into water body (reservoirs) and 70 ha area will be backfilled. The main preventive/precautionary measures proposed to avoid free access to the voids/water body created as a result of mining are as follows:

- Proper fencing will be ensured around the periphery of the water reservoir to ensure safety.
- Development of green belt all along the boundary of the water bodies.
- To display sign boards at prominent places warning for no entry of unauthorized persons for safety point of view.
- Security Guards will be provided to prevent any unauthorized access to water body.

- Water level will be monitored in the rainy season.
- Slopes of upper benches of water reservoir will be made milder to permit access of villagers.

12. Public Hearing for the Environmental Clearance of proposed project was conducted on 04th August, 2018, Saturday, from noon 2:00 pm at Village -Chandi (Near ground of panchayat Bhawan), Tehsil Sigma District – Balodabazar – Bhatapara by Additional District Collector, Balodabazar. Shri P.K. Rabde, Scientist in Regional office of C.G. Environmental Conservation Board, Raipur. Shri Ravi Tiwari Industry Representative, Shri R.K. Vijay (Unit Head), Shri Rakesh Bhargava (Environmentalist), Sarpanchs of Karhi, Bharuwadih, Khapradih & Chandi Gram Panchayats, nearby Village farmers & About 500 people etc. were present during public hearing. The advertisement for Public Hearing was published on 1st July, 2018 in “Dainik Bhaskar, Raipur” and “Hindustan Times.” The major issues raised were related to Socio-Economic Development of nearby area, employment, health, water and environment etc. The PP during the PH committed that an amount of Rs 169.2 Lakh shall be spent under CER for 15 years, Rs 9.45 Lakh for development of sport facility, Rs 7.0 Lakh for water arrangement, Rs 0.25 Cr (Capital) & Rs 0.1 Cr (recurring) for EMP, Rs 9.45 Lakh for vocational training, promoting the farming work, self-employment work, and village based work, Rs 34 Lakh for construction of drainage & water tank.

Observation of EAC: *The Committee deliberated on the issues raised during PH and is of the view that PP shall comply with the commitment made in a time bound manner. Further, PP vide its letter dated 24.07.2020 mentioned that presently SCL is utilising the mine sump water to the integrated cement plant and for feeding cattle to the nearby villages. SCL, has a planning for distribution of surplus (to the tune of 805 KLD) mine pit water to the nearby villages such as Semaradih, Khapradih and Bharuwadih etc. for irrigation purposes through pipelines for onwards for gainful use after 15 years onwards. The Committee is of the view that 15 years is a long period and the mine is already in operation since 2015, therefore the necessary provision to be surplus water shall be created within a time frame of 5 years.*

13. PP has submitted that Company has allocated Rs.169.2 Lacs towards social development activities under **CER** for the period of 15 years which is 2.5 % of the total project cost of Rs. 67.68 Cr. This includes: 1) Education Promotion Programs Rs. 36.15 Lakhs, 2) Health and welfare programme (Rs. 18.85 Lakhs), 3) Women Empowerment & Development Programme Rs. 8.95 Lakhs, 4) Contribution in Religious & Social Programmes Rs. 1.94 Lakhs and 5) Community Infrastructure Development Rs. 103.33 Lakhs. The programs and activities are defined in the proposed Action Plan under each above-mentioned head and the budget is planned to be spent in a time-bound period of 15 years.

Observation of EAC: *The Committee asked about the comparison of project cost and CER Cost. The PP vide its letter dated 22.07.2020 submitted that the existing cost of the project including land cost is Rs 335.82 Crore and CER comes out to be Rs 2.77 Crore. PP submitted that M/s SCL has already spent Rs 2.77 Crore for development activities in the nearby area of the project since 2010-11 till 2019. The project cost for the proposed expansion is Rs 67.68 Crore and CER cost comes out to be Rs 0.67 Crore as per MoEF&CC O.M. dated 1st May 2018. However, Rs 1.69 Cr @ of 2.5 % of total cost has already been proposed for CER activities.*

14. PP reported that total Mining lease area is 531.126 ha which falls at villages Semaradih and Bharuwadih. Out of total mining lease area, 78.722 ha is Govt. land. Total Private land is 452.404 ha out of which, 2.558 ha is private agriculture land which is still to be acquired by the company and rest 449.846 ha area of land is under possession of SCL. This is an existing mining lease and expansion in limestone production capacity is proposed within the mining lease area.

15. The Project Proponent submitted that existing budget under EMP is Rs 2.4 Lakh (Capital) & Rs 0.43 Lakh (recurring). The additional budget proposed for environmental protection measures due to expansion is Rs 1.1 Crores (Capital) and Rs 0.25 Crore (recurring cost). Therefore, the total budget under EMP is Rs 3.5 Cr (Capital) Cost) & Rs 0.68 (recurring) cost which includes 1) Pollution Control Rs 45 Lakh (Capital) [Rs 40 Lakh existing & Rs 5 Lakh for expansion] & Rs 23 Lakh (recurring) [Rs 20 Lakh existing & Rs 3 Lakh for expansion], 2) Pollution Monitoring Rs 100 Lakh (Capital) for existing & Rs 5 Lakh (Recurring) for existing, 3) Occupational Health (Capital – Rs. 5 Lakhs & Recurring/annum – Rs. 2 Lakhs), 4) Green Belt Mine & Colony (Capital – Rs. 85 Lakhs & Recurring/annum – Rs. 15 Lakhs) and 5) Others (Water Spray etc.) (Capital – Rs. 10 Lakhs & Recurring/annum – Rs. 2 Lakhs).

16. PP has submitted that in order to ensure adequate implementation of the OHS measures suggested, SCL have adhered to / will adhere to the pre & periodical medical examination program. The medical records of the employees are being/ will be maintained. Under initial vocational training, the workers are being/ will be given training related to all safety and health aspects pertaining to their vocation and thereafter, special training courses/ awareness programme for Malaria eradication, STDs and health effects on exposure to mineral dust are being/ will be organized regularly for employed persons as well as for nearby villagers. Frequency of Medical Examination a) Pre Placement Medical examination: Prior to joining and b) Periodical Medical examination- 1) Age of workers < 45 years: After every 5 years and 2) Age of workers > 45 years: After every 3 years. The budget proposed for occupational health includes total Capital cost of Rs. 5 Lakhs and annual recurring cost of Rs. 2 Lakhs.

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

18. PP submitted the compliance report from RO MoEF&CC, Nagpur vide letter No: EC-353/RON/2017-NGP/ dated 31.07.2018 & Closure Report vide letter No: EC-353/RON/2017-NGP/4384 dated 1.10.2018.

Observation of EAC: *The Committee observed that the Regional Office closed the non-compliance report and is of the view that PP shall ensure that EC Conditions to be complied within without fail.*

19. PP submitted that Mining Lease was executed on 11.01.2011 and Mining operations were commenced on 12.03.2015. PP submitted the letter No. 1467/तीन-6/खनिपट्टा नंबर38/2007dated 19.12.2017 & letter No. 3173/तीन-6/खनिपट्टा नंबर38/2007dated 14.10.2018 issued by Mining department of collector office wherein it has mentioned that production from the mines was started from April 2015 and the production during 2015-16 was 1979059 Tone, during 2016-17 was 2993943 Tone and during 2017-18 was 4112837 Tone.

Observation of EAC: *The Committee previously asked the PP to submit the valid certified document for production details for the year of 2018-2019 and copy of valid CTO for 2018 and 2019.*

PP in its reply submitted the copy of valid CTO for the year 2018 and 2019, vide CTO no. 7562/TS/CECB/2019 dated 8.02.2019 which was valid up to 12.12.2019 same for the year 2019 and 2020, vide CTO no. 7892/TS/CECB/2019 dated 05.12.2019 which was valid up to 30.11.2020. In addition to this PP also submitted the letter No. 396/तीन-6/खनिपट्टा नंबर38/2007dated 22.06.2018 as per which Limestone production during 2019-20 is 5739914 Tonnes.

Observation of EAC: *The Committee observed that PP vide its letter dated 24.07.2020 submitted that dully filled Annexure-III as per which production is well within the EC capacity and there is no violation of Common Cause Judgment dated 2.08.2017 & S.O. 804(E) dated 14.03.2017.*

20. PP has submitted an undertaking in EIA Report dated 30.01.2019 to the effect that the conditions laid down in TOR prescribed by MoEF&CC, New Delhi vide letter dated 06.02.2018 for the said project have been complied with. The data submitted and the information presented in the EIA/EMP Report are factually correct. Also, a declaration has been submitted by Head of the accredited Consultant Organisation i.e. JM EnviroNet Pvt. Ltd. that the experts prepared the EIA/EMP Report for Expansion of Shree Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production and 3.42 Million TPA Inter-burden & Over-burden and 0.95 Million TPA Top Soil (Ml no. 38/2007, ML. Area: 1;31.126 ha) and crushers (Primary: 2x1200 TPH & Secondary: 2x 450TPH) at Villages: Bharuwadih & Semaradih, Tehsil- Balodabazar in District Balodabazar-Bhatapara (Chhattisgarh) by Shree Cement Limited. They also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement. Further, PP has given undertaking in Form-2 that hereby give 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. PP also submitted the affidavit dated 19.04.2019 in pursuant to Ministry's O.M. dated 30.05.2018, to comply with all statutory requirements & 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 & Ors.

21. The Proponent submitted that total project cost will be Rs. 67.68 Crore and the total requirement of manpower for proposed project will be 215 persons.

22. **PP vide its letter No. SCL/EC/Bharuwadih&Semradih/2020-21 dated 30.06.2020** has submitted the following information/clarification w.r.t. to the ADS raised by EAC:

- i. The total mine lease area is 531.126 ha. Out of 531.126 ha, 78.722 ha is a Government land and 452.404 ha is a private agriculture land. Out of 452.404 ha, 449.846 ha is under possession of Shree Cement Ltd. and PP submitted that the remaining 2.558 ha is private agriculture land which will be purchased on mutual agreement in due course. PP needs to clarify the present status of the land possession and timeline for conversion of agricultural land to mining land.***

Submission by PP: Total Mining lease area is 531.126 ha which falls at villages Semradih and Bharuwadih. Out of total mining lease area of 531.126 ha, 78.722ha is Government land. The State Government has allotted 52.274 ha for mining purpose to the PP (Copy of Letter enclosed as **Annexure No. I** to the letter) In the rest 452.404 ha area, 449.846 ha is the land owned by SCL (PP) for mining activity while 2.558 ha is private agriculture land which will be acquired by company in due course.

Madhya Pradesh Government's revenue department has issued an order vide its letter no. 1689/213618/89 dated 19.12.1989 (Copy enclosed as **Annexure No IA & IB** to the letter) clarifying that there is no need for conversion of agricultural land in case of land under granted mining lease. Accordingly, as the mining lease over an area of 531.126 ha was granted in favor of Shree Cement Limited for Mining purpose, there is no requirement of conversion of agricultural land to mining land.

There is no change in present status of the land possession.

- ii. PP presented point-wise compliance of stipulated TOR; however, the Committee felt that few of the points have been responded in***

very generic terms. On specific query the PP was providing necessary information, however, the submission made were not adequately represented. PP needs to submit the compliance of TOR in more specific way.

Submission of PP: Detailed compliance of ToR has been made & the same has been enclosed as **Annexure No.-II** to the letter.

- iii. PP needs to submit NOC from competent authority of forest department that no forest land is involved in mine lease area and also the details of forest area in the vicinity of the project area. The letter needs to clearly mention the name and designation of the signing authority and also place the stamp of same signing authority.**

Submission of PP: No forest land falls within the lease area. Letter reg. the same has been obtained from Mr. Arun Kumar Pandey Principal Chief Conservator of Forest, Govt. of Chhattisgarh vide letter no. S.No. Wildlife/Management-379/ 2291 dated 17.06.2020. Copy of the same along with the conservation plan has been enclosed as **Annexure III** to the letter.

- iv. PP to submit the valid certified document for production details for the year of 2018-2019 and copy of valid CTO for 2018 and 2019.**

Submission of PP: Production details for the year of 2018-2019 has been obtained and same has been authenticated by Department of Mines & Geology, State Govt. vide letter no. 396*/ teen-6/ khanipatta number 38/2007 dated on 22.06.2019. Copy of the same has been enclosed as **Annexure No. IV** to the letter.

Limestone production during 2019-20 is 5739914 Tonnes. Copy of receipt for the same has been enclosed as Annexure No. IV Copy of valid CTO for the year 2018 and 2019, vide CTO no. 7562/TS/CECB/2019 dated 8.02.2019 which was valid up to 12.12.2019 same for the year 2019 and 2020, vide CTO no. 7892/TS/CECB/2019 dated 05.12.2019 which was valid up to 30.11.2020 has been enclosed as **Annexure No. V** to the letter.

- v. PP to submit more comprehensive finding and analysis on vibration aspect arising due to mining activity.**

Submission of PP: The main cause for generation of vibrations is blasting. Blasting is essentially required to excavate limestone. In Shree Limestone Mine, limestone is found in compact, hard layers. Controlled Blasting is being/ will be done using ANFO and high explosives with use of milli second delay detonators/NONEL to limit the blast induced vibrations fly rocks and noise. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker. Blasting will be done during once in day time.

Measures adopted for controlled blasting so that vibrations can be controlled are as follows:

- Drilling and blasting is being/ will be carried out within 100-150-meter zone of village habitation with prior permission that will be obtained from DGMS and blasting study will be carried out.
- Vibration monitoring is being/ will be carried out for every blast to mitigate any adverse impact of blasting.

- Non-conventional mining method is being/ will be adopted to excavate limestone within 100m from village habitation.
- Beside this, Mining is being/will be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of (DGMS) and Conditions mentioned in DGMS guidelines will be followed strictly.
- Controlled blasting is being/will be carried out to reduce ground vibrations, air blast and peak particle velocity will be kept within permissible limit in order to control effect of vibration in the nearby area.
- All measures is being/will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats.

The existing blasting study reveals the following:

- The ground vibrations generated by blasting during the mining operations are well within prescribed limit of Director General Mines Safety (DGMS).
- Ground vibrations are under control by using optimum charge of explosive per delay.
- Fly rocks appear to be controlled in the study blasts.
- Regular vibration monitoring as per the existing practice to be continued in future & the maximum PPV & AOP will be kept within the prescribed limit of DGMS.
- Controlled blasting by latest blasting technique using shock tube detonator (Down line detonator in combination with noise less trunk line detonators.) is being practiced regularly at mine & advised to continue with the same.
- It is submitted that NONEL initiation system should be continued in the blasting operations.
- The sub grade drilling is being/will be 0.5 m for a blast hole depth of 12 to 13 m and explosive will be initiated from the bottom of the hole.

Regular ambient air quality monitoring and vibration monitoring is being/will be done. At each & every blasting time vibration monitoring is being/will be carried out. Monitoring is being/will be done by Micromate instrument.

Blast Vibrations Monitoring reports have been enclosed as enclosed as **Annexure VI** to the letter.

Table 1
Locations of Vibrating Monitoring

Date	Bench MRL	Location	Throw	Longitude	Latitude
27.04.2019	270	East part of Pit	South	21°36' 35 " N	82°04' 02 "E
27.05.2019	270	East part of Pit	West	21° 36' 36 " N	82° 04' 27 "E
18.06.2019	270	West part of Pit	East	21°36' 43 " N	82°04' 29 "E
23.07.2019	260	SouthWestpartof Pit	East	21°36' 45 " N	82°04' 28 "E

22.08.2019	260	West part of Pit	West	21°36' 38 " N	82°04' 01 "E
30.09.2019	260	South part of Pit	North	21°36' 47 " N	82° 04' 11 "E
17.10.2019	260	East part of Pit	North	21°36' 42 " N	82°04' 12 "E
30.11.2019	270	East part of Pit	North	21°36' 40 " N	82°04' 12 "E
05.12.2019	270	East part of Pit	North	21°36' 39 " N	82°04' 12 "E
15.01.2020	270	West part of Pit	North	21°36' 44 " N	82°04' 28 "E
18.02.2020	270	West part of Pit	North	21°36' 42 " N	82°04' 28 "E
10.03.2020	270	East part of Pit	North	21°36' 42 " N	82°04' 28 "E

Blasting Vibrations are regularly monitored by Micromate Instrument to measure blast induced vibrations. 12 nos. of representatives. Blast Vibrations Monitoring reports have been enclosed as Annexure VI, which clearly shows that Vibrations are well within the prescribed limit defined by DGMS.]

Table 2:

Details of Nearest Habitations from ML boundary & Mining Pit

S. No.	Nearest Habitation	Distance from the ML Boundary	Distance from the Present Pit	Distance from the Pit during the Plan Period	Distance from the Pit during the Conceptual Stage
1	Bharuwadih Village	~10 m	950m	300 m	125 m
2	Semradih Village	~250 m	500m	450 m	220 m
3	Champa Village	~ 550 m	1000m	820 m	800 m

There is no relation with increase of Production to vibration. As vibration level is related to charge per delay and not on production, so in case of increased production also, the charge per delay will be maintained same.

vi. PP to submit the impact of mining on the ground water in more scientific way using appropriate ground water modelling.

Submission of PP: The groundwater in the area occurs under unconfined state with in the secondary porosity of limestone formations. The length of aquifer exposed and the depth of mine pit determines the area of aquifer exposure. The length is taken Maximum length /width in groundwater flow direction, the water table gradient has been evaluated from the water table map. The mine seepage has been computed for pre-monsoon and post monsoon period separately on yearly basis, the mine dimensions along with seepage computations. The mine plan dimensions in terms of length, width and RL values of depth of excavation is also provided. The study area lies in the safe category according to the Ground Water Estimation Committee 2009.

From the hydro-geological study report after reviewing the ground water modeling data, it is seen that there is no spring, public well, river or lake in the area of 1KM from the mining pits indicating that there will not be any influence of pumping water from the mining pits on any other sources. The radius of influence is the distance of zero drawdown which is about 1100 m at the maximum envisaged depth of mining of 80 m below ground level. In the post mining scenario when the pumping of ground water will cease, there bound of groundwater level is expected. In

general, the initial rebound is fast and subsequently its gradient slows down.

PP has submitted complete hydrogeological study report as **Annexure VII** to the letter.

- vii. PP failed to provide information on input data used for air quality modeling for predication of GLC values. Therefore, the Committee asked to redo the modelling with cumulative input loads arising due to various activities.**

Submission of PP: PP has submitted the following:

- M/s. Shree Cement limited has an integrated cement plant Clinker (2 x 2.6 to 3x 4.5 Million TPA), Cement (2 x 3.0 to 3x 5.5 Million TPA), Captive Power Plant (25 to 125 MW) and WHRS (30 to 100 MW) located in Khapradih Village of Simga Tehsil of Balodabazar-Bhatapara District in the state of Chhattisgarh. Total plant area is 159.256 ha. EC has been granted vide letter no. J-11011/235/2008-IA-II (I) dated on 11.09.2019.
- Shree Cement Limited has one captive operating limestone mine (Bharuwadih-Semaradih Mine) and one proposed captive limestone mine (Karhi-Chandi Mine) for catering limestone to two existing kilns and one proposed kiln adjacent to the captive mines in BalodabazarBhatapara district (Chhattisgarh).
- Cumulative effect of both captive mines and expansion of cement plant with captive power plant has been estimated considering various activities and the emission factors of Drilling, Blasting, Loading & Unloading, transportation, crushing, dumping and other allied activities besides emissions from all the stacks of cement plants and captive power plant.
- Air Pollutant Dispersion Modeling has been carried by using AERMET View 8.2.0 and AERMOD View 8.2.0 – Model: AERMOD and concentrations have been predicted in all directions covering all types of weather conditions.
- Spatial distributions of all the pollutants are also presented in the form of Isopleths.

Table 3

GLC (Incremental & Resultant) for Different Scenarios Composite for Integrated Cement Plant & Captive Mines

Particular	Concentration ($\mu\text{g}/\text{m}^3$)			CPCB NAAQS Standards
	Baseline	Incremental	Resultant	
PM10	78.2	8.5	86.7	100
PM2.5	40.3	6.78	47.08	60
SO2	12.4	5.25	17.65	80
NO2	21.0	7.58	28.58	80

The detailed modeling report has been prepared and same has been enclosed as **Annexure VIII** to the letter.

- viii. PP needs to submit the authenticated list of fauna and flora details by specifying their classifications from chief wildlife warden.**

Submission of PP: There are 2 species of Schedule I. The Schedule I species are:

- Indian Rock Python (Pythodmolurus)
- Indian Monitor Lizard (Varanus bengalensis)

Site specific Wild Life Conservation Plan has been prepared and approved from Mr. Rakesh Chaturvedi, the Principle Chief Conservator of Forest (Wildlife Management & Biodiversity Conservator) cum Chief Wildlife Warden, Chhattisgarh vide letter no. S.No./WL/MGMT379/19/3451 dated on 21.06.2019. The budgetary allocation for the same is estimated 36.30 lakhs for 3 years is also approved in the above mentioned letter. Copy of the approval letter along with the conservation plan has already enclosed as **Annexure-III** to the letter.

- ix. The topsoil management was not comprehensive. PP needs to submit the revised topsoil management details.**

Submission of PP: The total mining lease area is 531.126ha out of which 34.8 ha area already excavated before plan period, 144.0ha area as on operational period and 319.2 ha area at the end of life of mine. The topsoil generated is 0.104 million cubic meter during the year 2019-20. This Topsoil generated was used for plantation work. During the present remaining tenure of Modified Mining Plan Period 0.45 Million cubic meter top soil will be generated and 1.58 million cubic meter top soil will be generated at the end of mining plan period. At the end of life of mine, no top soil will be stacked. All the top soil encountered will be used for reclamation. The top soil is black in color. The excavated top soil will be used for plantation purpose within the mining lease area. The year wise top soil excavation details have been furnished in the table given below:

Table 4:

Existing Year wise top soil generation & management

S.No.	Year	Top Soil	
		Generation (million cum)	Management (cum)
1.	2015-2016	0.2875	Plantation Done
2.	2016-2017	0.225	Plantation Done
3.	2017-2018	0.24375	Plantation Done
4.	2018-2019	0.114960	Plantation Done
5.	2019-2020	0.104	Plantation Done

Table 5

Proposed Year wise top soil generation & management

S.No.	Year	Top Soil	
		Excavated (million cum)	Management (million cum)
1.	2020-2021	0.06	0.03 will be partly stored as top soil stack & 0.03 will be partly used for Plantation

- During the mine operation the top soil is being scrapped and collected by dozer and loaded into dumpers by hydraulic excavator and further transported simultaneously to plantation site.
- Rest of the top soil will be stacked temporarily on the non-mineralized zone and which will be later spread on the dumps for plantation.

- Retaining wall is being/will be provided around the soil till is used for plantation and later it will be spread over backfilled area and stabilized with the plantation.

Topsoil Storage

- Topsoil and other materials removed should be stockpiled only when it is impractical to promptly redistribute such materials.
 - Garland Drain will be made all along Topsoil Stock.
 - Stockpiled materials should be selectively placed on a stable area (not disturbed), and protected from wind and water erosion, unnecessary compaction, and contaminants, which lessen the capability of the materials to support vegetation when redistributed.
- x. The buffer zone to contain blasting effects was less than 500 m from the receptors. PP has to submit a comprehensive abatement plan to ensure that the concerns arising due to proposed blasting in critical zones are appropriately addressed.**

Submission of PP: Blasting is being/ will be done using ANFO and high explosives with use of milli second delay detonators/NONEL to limit the throw of fly rocks and noise. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker. No secondary blasting is envisaged in this mine. Blasting will be done during day time. Blasting parameters which is being/will be used for blasting are as follows:

**Table - 6
Drilling and Blasting Parameters**

S. No.	Parameters	Dimensions
1.	Depth of Hole	12 meters
2.	Diameter of Holes	150-165mm
3.	Burden & Spacing (m)	4.0-5.0m 5.0-7.0m
4.	Stemming Column (m)	1/3 of the burden
5.	Subgrade drilling	0.5
6.	Charge of explosive per hole	90-100kg
7.	Powder Factor	7.70 tonnes/ kg
8.	Types of explosives used	Slurry explosives and ANFO
9.	Initiation	Bottom initiation by the use of down line detonator in combination of noise trunk line detonator on surface
10.	Number of Holes per round	50-60
11.	Blasting Frequency	6times in a week

Type & Storage of Explosives:

Slurry explosives and ANFO are being/ will be used for blasting. The Explosive is being/ will be stored in existing 4 nos. of Applicant’s licensed magazine at non-mineralized Block 4 of the Mining Lease area.

Measures adopted for controlled blasting are as follows:

- ❖ Non-conventional mining methods will be adopted to excavate limestone within 100 m from village habitation.

- ❖ Beside this, Mining will be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of (DGMS) and Conditions mentioned in DGMS guidelines will be followed strictly.
- ❖ Controlled blasting will be carried out to reduce air blast & ground Vibration and peak particle velocity will be kept within permissible limit in order to control effect of vibration in the nearby area.
- ❖ All measures will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats.

xi. The presented photograph suggests that the present plantation is very thin and require comprehensive efforts to increase sustainable green coverage in the mine area. Accordingly, PP advised to submit a forestation plan.

Submission of PP: The afforestation plan within the mining lease area has been summarized below:

- ❖ As on 31.05.2020, total 72.95 ha areas with 180686 no. of plants have been covered under plantation. Green belt has been developed along the Mining Lease boundary.
- ❖ Plants have been/ will be planted with @ 2500 saplings per hectare of land. At present till May, 2020 total 180686 plants have been planted on 72.95 ha area.
- ❖ Location: Along boundary wall Near Semradih / Champa&Bharuwadih villages, near
- ❖ Canal area, Line-II Crusher area, BC 06 & 07 area.
- ❖ At the end of life of mine Plantation will be done on 176.0 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area).
- ❖ At the end of life of mine Plantation will be done on 176.0 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area).
- ❖ Species selected for green belt/plantation have been/will be Babul (*Acacia Arabica*), Safed siris (*Albizziaprocers*), Sisam (*Dalbergialatifolia*), Neem (*Azadirachtaindica*), Gulmohar (*Delonixregia*), Subabul (*Laucaenaleucocephala*), Cassia semiya, Copperpod (*Peltaphorum*), Karanj (*Derris indica*), Mahaneem (*Maliaazedarachta*), Bamboo plant (*Bambusadendrocalmus*), Humata Grass.

The above mentioned plant species have greater ecological value and are of good utility value to the local population. These species are also tolerant to pollution. The details photographs of the plantation have been enclosed as **Annexure IX** to the letter.

Table 7

Ecology: Stage Wise Cumulative Plantation

Year	On Area		Virgin		Backfilled Area		Waste Dumps		Township area		Total	
	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees

Existing up to May 2020	70.95	175686	-	-	-	-	2	5000	72.95	180686
2020-2025	2	5000	15	37500	-	-	2	5000	19	47500
2025-2030	2	5000	15	37500	-	-	-	-	17	42500
2030-2035	2	5000	20	50000	-	-	-	-	22	55000
2035-end of mine	0.85	3814	20	50000	21	52500	3.2	8000	45.05	114314
Total	77.8	194500	70	175000	21	52500	7.2	18000	176	440000

xii. PP to submit the pollution control measures proposed to deploy with the new crushers proposed to be installed.

Submission of PP: Two Crusher of 1200 TPH Production capacity has already been installed within the Mine Lease area of 531.126 ha. Two crushers of 450 TPH will be installed. Some of the pollution control measures proposed to deploy with the new crushers proposed to be installed are as follows:

Air Quality Management

- Bag Filters are being/will be provided with both the secondary crushers.
- Automatic water spray in crusher hopper and unloading point.
- Suitable enclosure for the conveyor system.
- Barrier in form of greenbelt all around in the vicinity of the crusher to trap fugitive dust.
- Dust masks are being/will be provided to the workers & operators working in dusty zones.
- Regular stack monitoring is being/will be done.

Stack Emission Monitoring Report is enclosed as **Annexure of X**.

Noise Quality Management

- Insulators are being/ will be provided in the crusher to control the noise pollution.
- Use of Closed acoustic systems for controlling the noise within the crusher.
- Development of green belt/plantation in all around the vicinity of the crusher.

xiii. PP needs to submit the findings of the hydrogeological study as per the provisions of the notification (i.e. from the recognised laboratory).

Submission of PP: Detailed hydrological study has been carried out by Mr. PavanGupta_NABET Approved FAE in Hydrology, groundwater and water conservation (HG) and Geology (Geo) and same has been enclosed as **Annexure VII** to the letter.

xiv. PP needs to submit more information on preventive/precautionary measures proposed to avoid any free access to the voids/water body created as a result of mining.

Submission of PP: At the conceptual stage of mining total excavated area will be 389.2 ha out of which 319.2 ha area will be converted into water body (reservoirs) and 70 ha area will be backfilled. The main preventive/precautionary measures proposed to avoid free access to the voids/water body created as a result of mining are as follows:

- Proper fencing will be ensured around the periphery of the water reservoir to ensure safety.
 - Development of green belt all along the boundary of the water bodies.
 - To display sign boards at prominent places warning for no entry of unauthorized persons for safety point of view.
 - Security Guards will be provided to prevent any unauthorized access to water body.
 - Water level will be monitored in the rainy season.
- Slopes of upper benches of water reservoir will be made milder to permit access of villagers.

23. Based on the documents submitted and discussion held the Committee **recommended** the proposal of M/s Shree Cement Ltd for grant of EC for expansion of limestone production from 8.6 Million TPA to 11.06 Million TPA with total excavation of 14.72 MTPA, *inter-alia*, including 11.06 MTPA of limestone from (ML No.38/2007, ML. Area 531.126 ha) and installation of crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh. The Committee is of the view that Ministry is in process of standardising the standard EC Conditions issued by O.M. No. No. 22-34/2018-IA.III dated 08.01.2019 & 16.01.2020. Therefore, in addition to following specific conditions the standard EC conditions (as amended) is applicable for this project.

- i) The PP shall provide adequate safety barrier against the villages, *inter alia*, including, control blasting with necessary permission from the Director General of Mines Safety within 300 m from the village / Habitation boundary, mining with non-conventional methods such as ripper dozer or other mechanical means by avoiding the blasting within 100 m from the village / Habitation boundary. Thick plantation with native and broad leaved species shall be developed, within one year from the commencement of mining operations, in the safety barrier left against the Habitations.
- ii) The ground induced blasting vibrations shall be monitored regularly for the every blast performed and the values of “peak particle velocity” and “Air Over Pressure” shall be maintained below the permissible values prescribed by the DGMS, from time to time.
- iii) The total excavation shall not be exceeded to 14.72 MTPA, *inter alia*, including 11.06 MTPA Lime stone.
- iv) PP shall implement the plantation program viz. from 2020 to 2025 [planting of total of 47500 saplings in an area of 19 ha (Virgin Area- 5000 saplings in 2 ha, Backfilled Area- 37500 saplings in 15 ha, Township Area- 5000 saplings in 2 ha), During the period from 2025 to 2030 [planting a total of 42500 saplings in an area of 17 ha (Virgin Area-5000 saplings in 2

- ha, Backfilled Area- 37500 saplings in 15 ha)]. During the period from 2030 to 2035, [planting a total of 55000 saplings in an area of 22 ha (Virgin Area- 5000 saplings in 2 ha, Backfilled Area- 50000 saplings in 20 ha)]. During the period from 2035 to end of mine, [plant a total of 114314 saplings in an area of 45.05 ha (Virgin Area- 3814 saplings in 0.85 ha, Backfilled Area- 50000 saplings in 20 ha, Waste Dumps- 52500 saplings in 21 ha, Township Area- 8000 saplings in 3.2 ha)]. Thus, as per the plan submitted by PP, during total life of mine [planting a total of 440000 saplings in an area of 176 ha (Virgin Area -194500 saplings in 77.8 ha, Backfilled Area- 175000 saplings in 70 ha, Waste Dumps- 52500 saplings in 21 ha, Township Area-18000 saplings in 7.2 ha)] is proposed to be planted. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- v) The plantation on the remaining area at the lease boundary corresponding to 5.07 ha shall be completed within one year i.e. 2020-2021 which includes plantation of total of 12675 saplings covering an area of 5.07 ha [Block 1 (4250 saplings in 1.7 ha), Block 2 (1625 saplings in 0.65 ha), Block 3 (5300 saplings in 2.12 ha) and Block 4 (1500 saplings in 0.6 ha)].
 - vi) The approved conservation plan prepared for 2 species of Schedule- I viz. Indian Rock Python (*Pythodmolurus*) & Indian Monitor Lizard (*Varanus bengalensis*) shall be implemented. The approved budget of Rs 36.30 lakhs (for 3 years) shall be deposited in the government account.
 - vii) The PP shall fulfil the Commitment made during Public Hearing which *inter-alia* include activities proposed under CER such as development of sport facility; water arrangement; vocational training; promoting the farming work; self-employment work; and village based work; construction of drainage & water tank; etc. In addition to this provision for distribution of surplus (to the tune of 805 KLD) mine pit water, to the nearby villages such as Semaradih, Khapradih and Bharwadih etc. for irrigation purposes through pipelines for onwards for gainful use shall be made within 5 years. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year
 - viii) All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year
 - ix) PP shall use the ground water only after obtaining approval from CGWA and State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) for expansion proposal after 07.04.2023, till the project proponent obtains such permission.
 - x) PP shall implement the topsoil management plan as submitted to the Ministry.
 - xi) 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.

2.6 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 proposed production of Capacity 1.0 Million TPA Limestone, Overburden/Waste -1.2 Million TPA and top 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-24°30'20" to 24°31'09" N and Longitude of 81°08'32" to 81°09'48" 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. (ML Area: 147.940 ha).

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 Project proponent applied online vide proposal no. IA/MIN/MP/24024/2014 on 06 August, 2014 along with the Form-I and Pre-feasibility Report for grant of The Terms of references. The proposal was appraised by the Expert Appraisal Committee in its 23rd meeting held during 25th-26th September, 2014, wherein the Committee recommended the TOR (Terms of references) for conducting the EIA/EMP studies. Ministry granted the TOR vide letter no. J-11015/249/2014-IA.II (M) dated 28th October, 2014 in the name of M/s Jaiprakash Associates Ltd. Subsequently the validity of ToR was extended vide letter even no dated 09.09.2016 for a year i.e. up to 27.10.2017. Thereafter ToR was transferred in the name of M/s 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. PP submitted the EIA/EMP Report after conducted the public hearing on 01.09.2018 online vide proposal no IA/MIN/MP/24024/2014 on 25 Oct 2018.

4. The proposal was considered in the EAC in its meeting held on Jan 22, 2019 To Jan 23, 2019 wherein the Committee, returned the proposal in the present form 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, 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 also noted that there are excavated Pits in the mine lease area, PP mentioned that the said mine lease area is new mine lease area the same was carried illegally before grant of the mine lease area, Hence the committee is of view that the PP may submit the Letter from DMG to the effect that no mining has been carried out.

5. Further PP resubmitted the proposal online vide proposal no IA/MP/MIN/25548/2014 on 29th Jun 2019 the proposal was considered in the EAC in its meeting held on July 30-31, 2019. Wherein PP submitted the following:

6. The PP reported that the 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 and NCLTB, Allahabad on 02.03.2017. 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. PP mentioned that the Mining granted by the State government is under section 8 (A) (3) of Mines and Minerals (Development & Regulation) Amendment Act, 2015 as per it lease is valid up to 29.03.2061. The mine lease is executed for thirty years only the validity of execution is effect from 10.08.2017 which is valid for thirty year up to 29.03.2041.

7. The PP submitted that the Mining Plan along with Progressive Mine Closure Plan vide letter no. 314(3)/2008-MCCM(C)/MP-48 dated 26.03.2009 is approved by The Controller of Mines (CZ), Indian Bureau of Mines (IBM), Nagpur over an area of 147.940ha in the name of M/s Jaiprakash Associates Limited. Further the mine lease was transferred from M/s Jaiprakash Associates Limited to M/s Ultra Tech Cement Limited. Subsequently the review of Mining Plan along with the Progressive Mine Closure Plan is transferred in the name of M/s UltraTech Cement Limited vide letter Mp/Rewa/Limestone/RMP-80/2018-19 dated 23.05.2019 by O/O the Regional Controller of Mines, Indian Bureau of Mines (IBM), Government of India and PP also submitted that there is no change in the mine plan only the name of the PP has changed from from M/s Jaiprakash Associates Limited to M/s Ultra Tech Cement Limited only. The Committee agreed with the PP submission.

8. The PP reported that Mining operations shall be carried out opencast fully mechanized method 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 the 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.

9. The 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, 36.43 ha area will be converted into water reservoir, 2.0 ha will be covered under infrastructure. 4.0 ha will remain undisturbed area. 8.0 ha will be developed as 7.5 meter thick plantation barrier zone will be covered under Green belt and Plantation. The plantation will be done @2500 saplings per ha of land.

10. The PP reported that there is no forest land within the lease area. PP also submitted the 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 exists 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.

11. 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.

12. 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.

13. 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.

14. 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.*

15. 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:

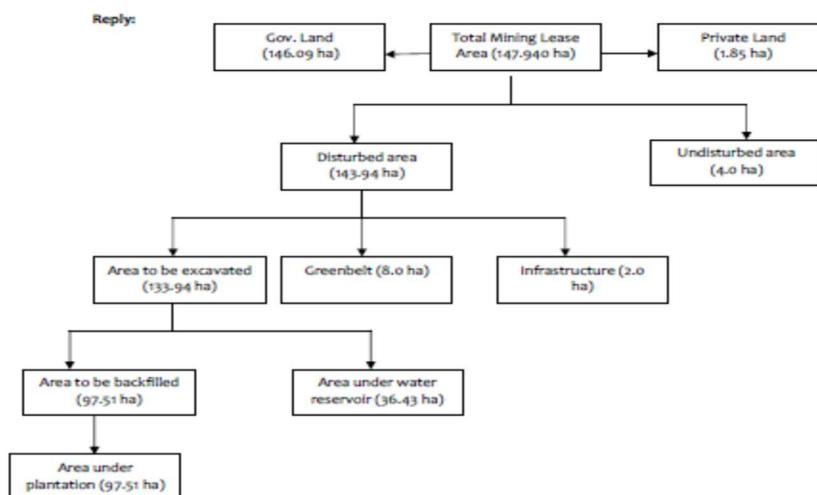
- As per MoEF&CC OM dated 01.05.2018, Greenfield project having capital investment of ≤100 Crores have to spend 2.0% under CER.
- Earlier the cost of the project was 20 Crore. Against which company had allocate 50 lakhs under CER (2% of total project cost). Now, after inclusion of the land cost i.e, 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				
1.	EDUCATION					29.00
	Construction of washrooms in schools of village narora.	1.00	-	-	1.00	
	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	
2.	HEALTH					25.00
	To Provide medical equipment to PHC.	10.00	-	-	10.00	
	Ambulance will be provided.	-	15.00	-	15.00	
	Sub total	10.00	15.00	-	25.00	
3.	INFRASTRUCTURE DEVELOPMENT					73.00
	Construction of check dam, stop dam at river Kariyari	15.00	-	15.0	30.00	
	Construction of Roads in narora village	-	15.00	-	15.00	
	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	27.00	31.00	73.00		
SKILL DEVELOPMENT						

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	33.50
	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	
5.	DRINKING WATER FACILITIES					
	Providing RO for clean and safe drinking water supply in Gram Panchayats of Hinauti, Narora and Sonra	-	1.00	0.50	1.50	1.50
	Sub Total	-	1.00	0.50	1.50	
6.	OTHERS					
	Establishment of Gaushala	-	5.00	-	5.00	
	Arrangements of fire brigade	-	-	15.00	15.00	20.00
	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

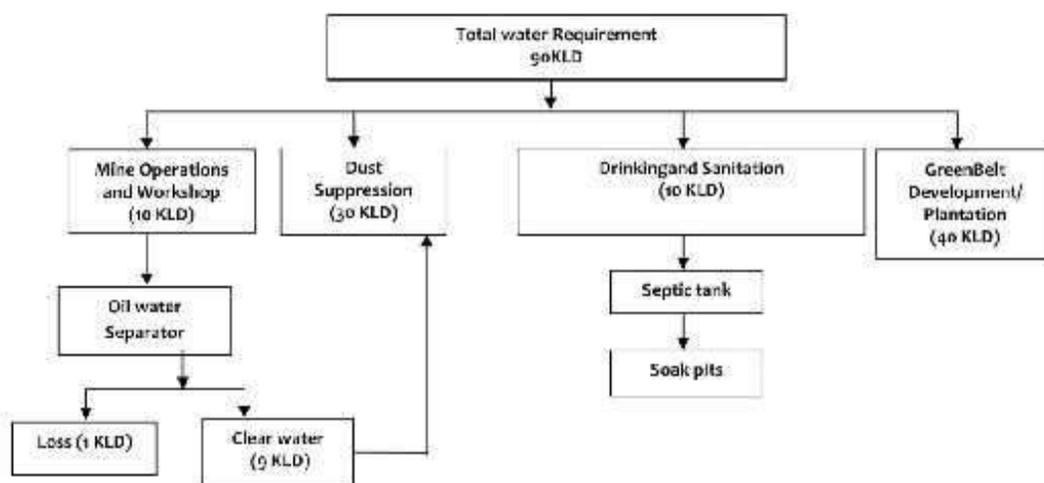


Figure 1: Water Balance Chart

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 (MT)
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

16. **The proposal was again placed in the 18th EAC (Non-coal Mining) held during 22-24 June, 2020.** 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 assessment, inter alia, including cumulative impact assessment considering 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 was **deferred**. The same was informed to PP by the Ministry on 01.07.2020.

17. PP vide its letter No. UTCL/ENV/MUM/2020/63 dated 01.07.2020 has submitted the following information/clarification:

- i. Point 1: The PP shall submit the revised impact assessment, inter alia, including cumulative impact assessment considering the total excavation from the surrounding mines and transportation associated with it.

Submission of PP: PP has stated that:

- The proposal was earlier Re-considered for Environment Clearance in 7th EAC Meeting held on 31.07.2019. ADS Letter was issued by MoEFCC vide their letter dated 09.10.2019, in which point no.9 asked to submit “Cumulative impact study of nearby mine and Cement Plant needs to be included in EIA study”.
- M/s. UltraTech Cement Limited has 3 existing limestone mines along with cement plant and is also proposing 4 mines. Details of total excavation from all proposed mines are given in table below:

S. No	Excavation (MTPA)	Mining Lease Area (Ha)				
		415.097	264.095	33.767	147.940	Total
1.	Limestone	1.5	1.0	0.15	1.0	3.65
2.	Topsoil	0.12	0.21	0.11	0.30	0.74
3.	OB	0.36	0.74	0.04	1.2	2.34
4.	Total	1.98	1.95	0.30	2.5	6.73

- Emissions from the cement plant and other existing mines are already covered in baseline results.
 - Impact assessment study has been carried out including cumulative impact assessment considering the total excavation from the surrounding mines and transportation associated with it and the report of the same was submitted vide our reply dated 30.04.2020.
 - The same has been presented and illustrated before the Hon’ble committee during the 18th EAC (Non Coal Mining) meeting held on 23.06.2020 and as per the minutes of the 18th EAC meeting the same point is again asked.
 - However, once again the Cumulative impact study report is enclosed herewith as **Annexure-II** to the letter.
- ii. Point 2: Certificate from the DMG regarding no mining has been carried out in the proposed ML area as desired in the earlier meeting.

Submission of PP: PP has submitted the following information:

- The proposal was considered for Environment Clearance in 1st EAC Meeting held on 23.01.2019. As per minutes of meeting uploaded on PARIVESH, the proposal was returned in present form and asked to submit “the letter from DMG to the effect that no mining has been carried out by PP in ML Area.”
- Letter regarding no mining carried out in the proposed ML was obtained from the respective State Mining Authority (Mineral-Branch), District- Rewa (Madhya Pradesh) vide letter no. 3078/Mineral/2019 dated: 11.03.2019 and submitted to the Ministry vide letter dated: 29.06.2019.
- Based on the reply submitted, the proposal was again Re-considered for Environment Clearance in 7th EAC Meeting held on 31.07.2019, the Hon’ble Committee/ Ministry has considered the same and in the subsequent ADS letter dated 09.10.2019 this point was not included.
- During the presentation held on 23.06.2020 in 18th EAC meeting, the same point was raised regarding the certificate obtained in respect “no mining carried out in the proposed ML” and which was displayed and illustrated during the presentation before the Hon’ble committee members through video conference.
- However, once again the copy of the letter regarding no mining carried out in the proposed ML obtained from respective State Mining Authority (Mineral-Branch), District-Rewa (Madhya Pradesh) vide no. 3078/Mineral/2019

dated: 11.03.2019 is enclosed as Annexure-**III** to the letter.

18. The project proponent made detailed presentation during the meeting before the EAC held during 22-24, July, 2020 on the prediction of cumulative impacts, inter alia, including the excavation, transportation and other activities from all four mining leases.

19. After detailed deliberations, the committee recommended for grant of environmental clearance for the proposed production of Capacity 1.0 Million TPA Limestone, Overburden/Waste -1.2 Million TPA and top soil- 0.3 Million TPA. The mine lease is located at Villages Sonra, Hinauti & Narora, Tehsil Huzur, District Rewa, Madhya Pradesh subject to the following specific conditions and standard conditions applicable to the project.

- i. The PP shall provide adequate safety barrier against the villages, *inter alia*, including, control blasting with necessary permission from the Director General of Mines Safety within 300 m from the village / Habitation boundary, mining with ripper dozer or other mechanical means by avoiding the blasting within 100 m from the village / Habitation boundary. Thick plantation with native and broad leaved species shall be developed, within one year from the commencement of mining operations, in the safety barrier left against the Habitations.
- ii. The ground induced blasting vibrations shall be monitored regularly for every blast performed and the values of “peak particle velocity” and “Air Over Pressure” shall be maintained below the permissible values prescribed by the DGMS, from time to time.
- iii. The total excavation shall not be exceeded to 2.5 MTPA, *inter alia*, including 1.00 MTPA Lime stone.
- iv. The PP shall obtain the amendment in existing environmental clearance in respect of proposed utilization of crusher in the adjacent mine belongs to the M/s UltraTech Cement Limited.
- v. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, *inter alia*, including plantation all along the boundary (Safety zone-9.70 Ha) of the mining lease shall be completed within 2 years of commencement of mining operations, with a saplings of native and broad leaved species of not less than 12 feet and shall maintain the record of the same, gap plantation and grassing as per the directions of the Hon'ble Supreme Court.
- vi. The project proponent shall implement the commitments made on the issues raised in PH and activities proposed under CER, 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.
- vii. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.
- viii. 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.
- ix. Adequate measures shall be taken up by PP to prevent contamination of water flowing through the seasonal nalah and PP shall develop plantation

with the barrier of 50 m along the bank of the nalah before commencement of mining operations near the nallah.

2.7 Limestone (minor mineral) mining project by Shri Dal Chand Sharma, located in Village Bhawanda, Tehsil Khimsar, District Nagaur, Rajasthan (MLA:100 ha & M.L. No 15/99) - Amendment in EC dated 18.06.2010. [Proposal No. IA/RJ/MIN/54835/2010]; [File No. J-11015/992/2007-IA.II (M)].

The Proposal of Smt. Suraj Kaur w/o Late (Shri) Dal Chand Sharma is for amendment in EC dated 18.06.2010 w.r.t. specific conditions no. A. (viii) to that there would be no concurrent backfilling possible at this stage, so existing waste/over-burden will be backfilled at the end of life of mine. The mine is located in Village Bhawanda, Tehsil Khimsar, District Nagaur, Rajasthan in MLA of 100 ha.

2. PP has applied for the amendment vide Proposal No. **IA/RJ/MIN/54835/2010**. PP vide its letter dated 17.09.2016 also informed that due to sudden demise of Late Shri Dal Chand Sharma the lease was transferred for which they have filed an application regarding transfer of EC in the name of Smt. Suraj Kaur dated 29.08.2016 as per the provisions laid down under Rule 11 of EIA Notification, 2006 and submitted the requisite documents.

3. **The proposal was deliberated in the EAC Meeting held during December 15-16, 2016.** The Committee noted that the Ministry has accorded the EC to Shri Dal Chand Sharma, vide letter no. J-11015/992/2007-IA.II(M), dated 18.06.2010 for mining of limestone (minor mineral) with production capacity of 0.1 million TPA in the MLA of 100ha.

4. The Committee deliberated at length and noted that the PP first to apply the transfer of EC in the name of Smt. Suraj Kaur w/o Late (Shri) Dal Chand Sharma as per the provisions of the Rule 11 of the EIA Notification, 2006 and afterwards the proposal of Amendment in EC dated 18.06.2010 w.r.t. Limestone (minor mineral) mining project may be considered. **The Committee therefore deferred the Proposal.**

5. **The proposal was again placed in 17th EAC held during 28-29, May and 1st June, 2020.** The proposal was **deferred** as the project proponent did not attend the meeting.

6. The proposal again placed in the instant meeting. However, the PP did not attend the meeting and also not communicated reason for absent. Therefore, the proposal is **returned in the present form** and the PP may make an application, afresh along with the transfer of EC for further consideration.

2.8 M/s Ramco Cement Limited for Kolimigundla Limestone mine (255.0 ha), production capacity of 1.0 MTPA located at villages, Kolimigundla Mandal, Kurnool District, Andhra Pradesh. [Proposal No IA/AP/MIN/69982/2017; File No:J-11015/96/2017-IA.II(M)]-Environment Clearance Regarding

1. The proposal of M/s Ramco Cements Limited is for mining of 1.0 MTPA of limestone from "Kolimigundla Limestone Mine" (ML Area 255.0 Ha) situated at, Kolimigundla Mandal, Kurnool District, Andhra Pradesh. The Mining lease fall under Survey of India Topo-Sheet No 57/I/4 and between Latitude 15°03'17.8" N - 15°04'17.6" N and longitude 78°06'18.1" E - 78°08'01.0" 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) as the Mining lease area is more than 100 Ha.

3. The PP applied online for grant of ToR and submitted the Form 1, Pre-feasibility Report. The project proposal was considered during the EAC meeting held during 23rd -24th October, 2017. The EAC recommended the proposal and prescribed the Standard ToR for undertaking detailed EIA study. The Terms of Reference was issued by MoEF&CC vide letter No J-11015/96/2017-IA.II (M) dated 07.11.2017. PP after conducting public hearing has now applied for Environment Clearance on PARIVESH vide Proposal No. **IA/AP/MIN/69982/2017on 29.06.2020** and submitted the final EIA/EMP report after incorporating Public Hearing proceedings.

4. The PP has submitted that The Govt. of Andhra Pradesh had issued a Memo no. 13536/M.III (1)/ 98-2 dated 28.08.1998 to erstwhile Madras Cements Limited (The Ramco Cements Ltd, now), considering grant of Mining Lease for limestone mining in Kolimigundla, Itikyala and Kalvatala villages over an extent of 255.0 Hectares. The mining lease was granted to erstwhile Madras Cements Limited vide G.O.Ms. No. 139 dt. 15.02.2000 over an extent of 255.0 Ha. in Kolimigundla, Itikyala & Kalvatala Villages, Kolimigundla Mandal, Kurnool District, Andhra Pradesh. The mining lease was executed vide proceeding No.1334/M4/2000 dt. 09.08.2000. In the meantime, the name of the Madras Cements ltd., has been changed to "The Ramco Cements Limited" on 13.10.2015, vide GO MS No. 96 (ANNEXURE – 1I), by Government of Andhra Pradesh. Now the Govt. of A.P., vide Memo no. 576/M.III (1)/2015 dt. 16.10.2015 had accorded M/s The Ramco Cements Limited (RCL henceforth), extension of time for period of 3 years, i.e., up to 15.10.2018 and further extended for three more years i.e., up to 13.10.2021, for commencement of Cement production, after obtaining all the necessary clearances from both the MoEF&CC and State PCB.

5. The PP has submitted that approval of Modified Mining Plan has been approved by Indian Bureau of Mines (IBM), Hyderabad vide letter no. AP/KNL/MP/Lst-52/Hyd dated 29th June, 2018. PP has stated that though TOR is taken for production of 1.0 MTPA of limestone from this mine, it is planned to produce 0.60 MTPA only and accordingly Mining Plan was approved for the same. Hence Draft EIA and Final EIA Reports are prepared for 0.6 MTPA Limestone production in line with the Approved Mining Plan.

6. The Project proponent submitted that the mine will be operated by the conventional open cast mechanized method of mining, which includes drilling, blasting, loading and transportation. The subject mine lease is adjacent to the proposed Cement Plant site. The limestone will be transported directly to cement plant through dumpers. The bench height proposed is 8 m and mining will be carried up to a depth of 244 m RL. The production of limestone will be raised by deploying one Hydraulic Excavator with 2.0 m³ bucket capacity. The transportation of limestone from the working face to the crusher at a distance of 1.5 km will be by 40 tons dumpers which are matching with the loading / excavating unit. PP has submitted that approximate Limestone bulk density is 2.5 T / Cu.m. The recovery factor considered is 100%. There will not be any waste or sub grade generation during the plan period and as well as for the entire life of mine. It is estimated that about 0.89 Million m³ of top soil will be generated during the life of mine. The soil generated will be used for afforestation all along the mine boundary in 7.5m boundary, Road & H.T line safety zones area.

Kolimigundla Limestone Mine has about 102.204 Million Tonnes of limestone reserves and resources which will last for about 170 years at the proposed production capacity of 0.6 Million Tonnes Per Annum (MTPA).

7. The PP submitted that the limestone will be worked to a depth of 20 m leaving safety and barrier zones and depth of ground water level near mining lease area in pre & post monsoon are found to be 70 to 95 mbgl & 40 to 45 mbgl respectively. So there will be no intersection. PP submitted that total water requirement in the mining lease will be 90 m³/day. The requirement is for domestic, dust suppression and afforestation in mines which will be initially met from Cement Plant. Later the rain water collected in the mine pit will be used.

Permission obtained from Water Resources Department, Govt of Andhra Pradesh for utilization of 2500 kld of surface water from Owk Reservoir, vide Letter No. EE/SRBC Divn.No3/Owk/IWS/186 M dated 27/05/2019. No ground water will be used for the project. The waste water will only be generated from domestic usage. This waste water of 8.0m³/day will be treated in Septic tank followed by soak pit. The potential of water harvesting plan has been worked out considering the mine catchment area. Though the mine has catchment area of about 2845 Ha, considering the mine area of 255 Ha as potential catchment, the harvesting potential is estimated to be about 92000 m³. Bunds will be formed to collect rainwater for storage into the minepit.

8. The PP has submitted total area under greenbelt for the life of the mine will be 13.0 Ha covering 32500 saplings. The afforestation would be done around 7.5 barrier zone by planting saplings of different varieties such as (*Azadirachta Indica* (Neem), *Ficus religiosa* (Peepul) *Leucaena leucaena* (Subabul), *Mangifera Indica* (Mango), *Tamarindus Indica* (Tamarind), *Saraca India* (Ashoka), *Dalbergia Sisoo* (Sisoo), *Pongamia Pinnata* (Ganuga), *Eugenia Jambolina* (Neredu), *Emblica officinale* (Usiri). PP has submitted a 5 year afforestation plan. The total budget earmarked for 5 year afforestation plan is Rs. 32.5 Lakhs (Capital) and 5.6 Lakhs (Recurring).

9. The PP submitted that the mining lease area consists of Pvt. Agricultural Unirrigated land of 238.19 Ha. (Major part is owned by RCL) and 16.81 Ha. of Govt. land. No Forest land is involved. PP has submitted that the letter from Principal Chief Conservator of Forests stating noninvolvement of forest land is issued vide Letter No: EFS02/15030/2/2018-FCA-2./FEC/PCCF dt. 11/05/2018. There is no Wildlife Sanctuary, National Park, Biosphere Reserves, Reserve Forest/Protected Forest and Migratory Routes for fauna exists within 10 km radius of mining lease area. Further, approved Wild Life Conservation Plan, approved by PCCF (WL) & CWLW has mentioned that there are no wildlife sanctuary, national park, elephant / tiger reserves within 10 km radius..

10. The PP submitted that based on the information obtained from the Forest Department, Black Buck which is Schedule – I specie is reported in the study area. During the ecological studies, Peafowl, Schedule – I specie is observed. In order to protect and improve the faunal population, a site specific Conservation Plan (Rs. 165 Lakhs) along with Soil & Moisture Conservation Measures (Rs. 10 Lakhs) has been prepared which was approved by Forest Department, Govt. of Andhra Pradesh with a budget of Rs 175 Lakhs vide Rc.No.9968/2018/WL-2 dated 15.07.2019. PP has submitted Approval letter along with Approved Wild Life Conservation Plan covering cement plant, power plant and 4 Nos. of mining leases. The approved budget for Wild Life Conservation by CWLW is Rs. 175 lakhs is common for cement plant, power plant and 4 Nos. of mining leases. RCL has earmarked Rs. 10 Lakhs under this mine towards Conservation Plan which is part of EMP budget under the subject mine.

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

12. The PP has submitted that One season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season-2017, covering the months of October '17 to December '17. The predominant wind directions during this period were from ENE-EESE Sector accounting to about 21.88% of the total time. Average wind speeds during this period were varying between 1.01-15 kmph and during most of the time the winds were more than 10 kmph. The Ambient Air Quality monitored in the study area was found to be well within the limits of NAAQ standards prescribed for Industrial, Residential, Rural and Other Areas. Noise levels recorded were found to be in the range of 50.6 – 54.7 dB (A) during daytime and in the range of 41.8 – 44.7 dB (A) during night time. Ground Water and Surface Water quality has been found to be within limits as per the Standards. The present land use is agricultural single crops land and the soil is fertile. On the basis of literature survey, from Red data books of Indian

plants, detailed list of rare and Endangered plant genera of Kurnool and Anantapur districts of Andhra Pradesh reveals that there are no endangered, threatened, rare plant species observed or recorded during study period and this plant species is quite commonly present in dry deciduous forest type. Authenticated list of Flora and Fauna of the Study area is submitted. Based on the information obtained from the Forest Department, Black Buck which is Schedule – I species is reported in the study area. During the ecological studies, Peafowl, Schedule – I species were observed. To protect these Schedules – I Fauna, a conservation plan has been formulated with total fund of Rs 10 Lakhs.

13. The Project Proponent reported that Public Hearing for Proposed Mining Project “Kolimigundla Limestone Mine” of M/s. The Ramco Cements Ltd. was conducted on 08.02.2019 at 10:00 am in Sy. No. 163, Kalvatala (Y), Kolimigundla (M), Kurnool District which is adjacent to the mine lease under the chairmanship of the Collector & District Magistrate, Kurnool District. The advertisement for public hearing was published on 08.01.2019 in newspapers – “Sakshi” and “The Hindu”. PP has submitted that, during the public hearing, the issues raised include employment opportunities to locals, More greenbelt development, provision of school and hospital in the area, Drinking water facilities in the surrounding villages etc.

14. The PP has submitted that Corporate Environment Responsibility (CER) budget as per MoEFCC’s office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018 for Rs 10.833 crores capital cost of subject mine is estimated to be about Rs. 22 Lakhs. This will include 1) Construction of Dining Hall in ZP High School, Kolimigundla – Rs. 18 Lakhs to be spent in 2 years and 2) Construction of Toilets at Kolimigundla, Itikyala Schools - Rs. 4 Lakhs to be spent in 2 years. Additionally RCL had allocated about Rs. 70 lakhs for providing the infrastructure facilities at the Belum caves, as a part of RCL Plant Corporate Environmental Responsibility.

15. The PP reported that the proposed mining lease area is 255.0 ha, out of which 238.19 Ha patta lands and 16.81 Ha of Govt. land. No rehabilitation or resettlement is proposed. RCL has purchased 156.5 Ha of patta land paying suitable compensation by the year 2006 – 2007. RCL has paid additional amount of Rs. 0.75 lakh per acre for all the lands purchased before 2008, through District Collector, Kurnool.

16. The Project Proponent submitted Capital cost of Environmental Management Plan is estimated to be about Rs. 88.5 Lakhs and recurring cost is about Rs. 3842.6 Lakhs for 170 years. This include 1) Air pollution control measures– Rs. 35 Lakhs (Capital) and Rs. 10 Lakhs (Recurring), 2) Occupational health measures– Rs. 6 Lakhs (Capital) and Rs. 1.2 Lakhs (Recurring), 3) Environmental Monitoring - Rs. 9.5 Lakhs (Recurring), 4) Greenbelt -Rs. 32.5 Lakhs (Capital) and Rs. 1.2 Lakhs (Recurring), 5) Rainwater Harvesting - Rs. 5 Lakhs (Capital) and Rs. 1 Lakhs (Recurring) and 6) Wildlife Conservation - Rs. 10 Lakhs (Capital).

17. The PP has submitted that Occupational health and safety hazards occur during the operational phase of mining. Long-term exposure to silica dust may cause silicosis. The following measures will be implemented. Excavators, Dumpers, other equipment will be provided with enclosed cabins. Use of personal breathing protection will be practiced. Continuous water sprinkling arrangement will be made to retain the wetness of material and road surface. No employee will be exposed to a noise level greater than 85 dB (A) for a duration of more than 8 hours per day without hearing protection. Ear muffs provided will be capable of reducing sound levels at the ear to at least 85 dB (A). Periodic medical hearing checks will be performed on workers exposed to high noise levels. The measures will be implemented for control of physical hazards. There are no endemic health problems in the area due to waste water / air / soil borne diseases however stray cases of water borne diseases such as gastroenteritis and fever have been

observed. RCL will establish a Health Centre. The medicines will be provided free of cost to the patients.

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

19. The PP has submitted an undertaking in EIA Report dated 05.06.2020 that the conditions laid down in Terms of Reference (TOR) issued by Ministry of Environment and Forests & Climate Change (MoEF & CC) Letter No. J-11015/96/2017-IA.II (M) dated 07.11.2017 have been addressed in the subject Final EIA Report. The information and data submitted is factually correct and the Ramco Cements Limited owns the contents of the report.

The Consultant (M/s. B.S. Envi-Tech Pvt. Ltd) has also given an undertaking stating that it has complied with all the prescribed Terms of Reference (TOR) issued by Ministry of Environment, Forests & Climate Change (MoEF&CC) in preparation of Final EIA Report for M/s. The Ramco Cements Limited in the said proposal. They also confirm that they shall be fully accountable for any misleading information mentioned in this statement.

Further, PP has given undertaking in Form-2 that hereby give 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. 10.833 Crores and the employment potential of the mine is 42. About 100 persons get benefited by indirect employments, business opportunities, service facilities etc. This will enhance the economic status.

21. The Committee deliberated on the Baseline data, Public hearing, Impact of Mining, method mining, plantation, CER, EIA/EMP and other related issues. The observation of EAC are as follows:

- (i) The Committee asked the PP about the preparation of mining plan for 0.6 MTPA when the ToR was already granted for 1.0 MTPA. PP informed the Committee that production quantity was optimized by the IBM considering the requirement of Cement Plan and availability of minerals from the other mining leases. The Committee thus of the view that PP shall submit the justification for opening of mines, raw mix design, mineral availability considering the production from other mining leases, mineral conservation etc.
- (ii) The Committee observed from the KML file that PP has shown safety area and mineable area, but it is not clear that what is effective area of mining, what is the area under safety zone, reserves available in the mining area, reserves blocked in the safety zone.
- (iii) The stage wise mine development plan, clearly showing rivers, safety distances, villages, roads, mine lease, water bodies, embankments, OB dumps, plantations etc. showing critical distances has not available in the EIA/EMP for drawing the appropriate mitigation measures in terms of method mining, method of blasting, monitoring of PPV and AoP due to blast induced vibrations.
- (iv) The Committee also observed that PP has mentioned that dumper will be used for transportation of the mineral but it is not clear that whether HEMM will be used or tippers will be deployed for transportation. Therefore,

for better understanding of the project PP is required to submit the above mentioned details.

- (v) The PP submitted that permission obtained from Water Resources Department, Govt. of Andhra Pradesh for utilization of 2500 KLD of surface water from Owk Reservoir, vide Letter No. EE/SRBC Divn.No3/Owk/IWS/186 M dated 27/05/2019. The Committee is of the view that PP should submit the timeline by which mine will become self-sufficient/water positive for requirement of water.
- (vi) The Committee observed that plantation plan needs to be revised as F.Y 2018-19 & 2019-20 is already over. PP needs to show the area on map where plantation will be done.
- (vii) The PP reported that the proposed mining lease area is 255.0 ha, out of which 238.19 Ha patta lands and 16.81 Ha of Govt. land. No rehabilitation or resettlement is proposed. RCL has purchased 156.5 Ha of patta land paying suitable compensation by the year 2006 – 2007. RCL has paid additional amount of Rs. 0.75 lakh per acre for all the lands purchased before 2008, through District Collector, Kurnool. The Committee is of the view that still 81.69 Ha of land is remaining. Therefore, PP needs to confirm the status of the same, whether PP is planned to purchase the same or not. What about the R&R plan for the same.
- (viii) The Project Proponent submitted Capital cost of Environmental Management Plan is estimated to be about Rs. 88.5 Lakhs and recurring cost is about Rs. 3842.6 Lakhs for 170 years. This include 1) Air pollution control measures – Rs. 35 Lakhs (Capital) and Rs. 10 Lakhs (Recurring), 2) Occupational health measures– Rs. 6 Lakhs (Capital) and Rs. 1.2 Lakhs (Recurring), 3) Environmental Monitoring - Rs. 9.5 Lakhs (Recurring), 4) Greenbelt - Rs. 32.5 Lakhs (Capital) and Rs. 1.2 Lakhs (Recurring), 5) Rainwater Harvesting - Rs. 5 Lakhs (Capital) and Rs. 1 Lakhs (Recurring) and 6) Wildlife Conservation - Rs. 10 Lakhs (Capital). The Committee is of the view that PP has taken the cost for 170 years but the lease is granted for the less period. Therefore, all the estimation needs to be done for the lease period only. In addition to this PP also provide the details of the Environmental Management Cell, frequency of monitoring for air, water, noise and soil quality, number and tentative location of the monitoring station to be set up.
- (ix) The PP submitted that Corporate Environment Responsibility (CER) budget as per MoEFCC's office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018 for Rs 10.833 crores capital cost of subject mine is estimated to be about Rs. 22 Lakhs. This will include 1) Construction of Dining Hall in ZP High School, Kolimigundla – Rs. 18 Lakhs to be spent in 2 years and 2) Construction of Toilets at Kolimigundla, Itikyala Schools - Rs. 4 Lakhs to be spent in 2 years. Additionally, RCL had allocated about Rs. 70 lakhs for providing the infrastructure facilities at the Belum caves, as a part of RCL Plant Corporate Environmental Responsibility. *The Committee observed that project cost should also include the cost of land and based on which CER needs to be defined, the Committee is also not agreed with the activities proposed in the CER and is of the view that PP should revise the same.*
- (x) The Committee is of the air quality modelling needs to be revised considering the impact of activities in the vicinity of the mining lease and details such as pre-dominate wind direction etc. should be clearly mentioned in the report.
- (xi) The Committee observed that issue raised during PH refer to Lord Shree Narshimha Swamy Temple, regular health camps, adoption of mirzapur village, damage to agricultural crops, additional compensation, dairy

industry, Belum Caves which is 3 KM away etc. Therefore, PP needs to submit the action plan for the same addressing all the issue raised during PH.

- (xii) The Committee also observed that EIA/EMP report uploaded online and submitted to the Ministry is not the same and some pages are missing in the online report. The Committee warned the consultant to ensure that document submitted online should be complete and correct in all respect.

22. Based on the discussion held, document submitted and due to above mentioned shortcoming the Committee **returned the proposal in present form** and is of the view that PP shall re-submit the Form-II with above mentioned information.

2.9 Kumaraswamy Iron Ore Mine (ML No: 1111, M.L. area 639.80 Ha, 8.6 MTPA (ROM 7 MTPA and Waste Excavation 1.6 MTPA) Iron ore production capacity) of M/s. NMDC Limited, Tehsil Sandur, Ballari District, Karnataka [Proposal No. IA/KA/MIN/75088/2018; File No.IA-J-11015/93/2018-IA-II(M); Consultant: M/s. Ecomen Laboratories Pvt. Ltd]- Environmental Clearance

1. The Proposal of M/s. NMDC Limited is for total excavation of 8.6 Million TPA of material [7.0 MTPA Iron Ore (ROM) & 1.6 MTPA waste] from Kumaraswamy Iron Ore Mine (Mining Lease Area 639.80 ha) and installation of 1800 TPH crushing and screening plant located at Villages Deogiri, Taluka-Sandur, District- Ballari Karnataka. The mining lease is covered under SOI Toposheet D43E12 (old 57 A/12) and bounded by Latitude between 15° 00' 00"N to 15° 01' 20"N and Longitude between 76° 33' 55"E to 76° 37' 10"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) as the Mining lease area is more than 100 Ha.

3. As the Environmental Clearance was already been granted to PP vide Lr No J11015/20/2002-IA. II(M) dated 29.10.2004 under EIA Notification 1994, the PP applied as per provision of S.O. 1530(E) dated 6.04.2018 for getting environmental clearance under EIA Notification 2006. The PP applied online vide Proposal No. IA/KA/MIN/75088/2018 dated 22.05.2018 and submitted Form-1, and PFR. **The proposal was placed in the EAC meeting held during 15th - 16th November, 2018.** The Committee noted that as per the notification dated 06.04.2018; the Project Proponent applied before 5th October 2018 and submitted the Form-1 and Pre-Feasibility Report. The Committee after due deliberation recommended the proposal for grant of ToR. **The Ministry granted the TOR on 10.12.2018.** PP applied for amendment in TOR which was considered in the 10th EAC meeting held during October 21-22, 2019. MoEF&CC issued the **Amendment to TOR vide letter dated 09.12.2019** by withdrawing TOR point nos: 1 & 2 of standard TOR for mining projects. **PP now applied for EC vide Proposal No. IA/KA/MIN/75088/2018 dated 16.06.2020 and has submitted the EIA/EMP Report.**

4. PP reported that the mining lease of Kumaraswamy was granted in favour of NMDC Ltd vide Notification No. C1-79-EMO-1970 dated 29.03.1972 over an extent of area 647.50 ha originally. The lease deed was executed on 18.10.1972 for a period of 30 years i.e. valid up to 18.10.2002. Further, Under Secretary, Commerce & Industries Department, Govt of Karnataka, Bangalore vide notification No.C1-218 MMM 2015 dated 14.08.2019, conveyed the extension of lease in favour of Kumaraswamy Iron Ore Mine (ML No: 1111) up to 17.10.2022 as per the provision of Section 8A (8) of MMDR Act 1957, read with rule 3(1) of the Mineral (Mining by Government) Rules, 2015 for an area of 639.80 ha. The lease area was reduced from 647.50 ha to 639.80 ha after CEC survey in the year 2012.

PP has submitted that Ministry of Mines, Government of India published Mineral (Mining by Government Company Rules), 2015 vide a Gazette notification dated 03.12.2015 and subsequent amendment dated 27.9.2019. The rule 3(2) of Mineral (Mining by Government Company Rules), 2015 states that the State Government shall extend the period of mining lease for further periods up to 20 years at a time when an application is made by Government Company at least 12 months prior to the expiry of mining lease. Hence, the Kumaraswamy Mining Lease (ML No 1111) is eligible for extension of lease from 18.10.2022 to 17.10.2042.

5. PP submitted that the review & updation of **Mining Plan** with PMCP was approved vide LR NO 279/290/91/BNG/1765 dated 07.11.2016 for F.Y 2017-18 to 2021- 22. The PP submitted as per sketch prepared by the CEC the lease area is 639.8 Ha as against 647.5 Ha further the exploratory drilling was carried out and proved reserves were enhanced to 147.07 MT and due to this modification in the mining plan was carried out and same was approved vide LR No 279/290/91/BNG/ 1442 dated 07.07.2017. **The second modification to approved mining plan along with Progressive Mine Closure Plan (PMCP) for a production of 7 MTPA ROM Iron Ore has been approved by IBM, Bangalore vide letter no 279/290/91/BNG/1332 dated 13.07.2018.**

The PP submitted that in the year 2011 the Central Empowered Committee (CEC) appointed by Hon'ble Supreme Court directed NMDC Limited to produce 1 MTPA per month i.e. 12 MTPA from both the mines in Karnataka viz. Donimalai & Kumaraswamy Iron Ore Mines and mining plan of both the mines were later fixed at 6 MTPA. **Consequently, the annual capacity of Kumaraswamy Iron Ore mines was scaled up from 3.0 MTPA in 2012-13 to 6.0 MTPA in F.Y 2016-17.** In the next year Departmental Ore Processing Plant with an annual capacity of 7 MTPA was commissioned. The CEC has permitted to produce only 1 MTPA by Departmental Ore Processing Plant and a proposal for increasing this threshold to 3 MTPA is pending with the CEC for approval. The CEC thereafter revised the maximum permissible annual production (MPAP) to 7 MTPA. The PP submitted that as the CEC and State Government approved the MPAP to 7 MTPA the modified mining plan has been prepared and approved by IBM vide LR dated 13.07.2018 for the period 2018-19 to 2021- 22.

6. The PP submitted that the **method of mining** will be opencast mechanized with drilling & blasting. **The production of Iron Ore is same at 7.0 MTPA (ROM) for which previous EC was granted under EIA Notification 1994.** The PP submitted that as per CEC report dated 03.02.2012 the KIOM is Category 'A' mines. CEC gave its concurrence to R&R Plan prepared by ICFRE, Dehradun. Mining is carried out by utilizing traditional shovel dumper combinations of large capacities with bench height varying from 6 to 7 mts. The operations are divided into 2 blocks, namely B-Block & C-Block. The workings in B-Block are divided into three nos. of pits viz. Pit-1, Pit-2, Pit-3 & in C-Block are divided into three pits viz. Pit-1, Pit-2 & Pit-3. The complete method of mining consists of drilling, blasting, excavation, loading and transportation. The blasted material is excavated by the hydraulic excavators and front-end loaders having various bucket capacity from 1.0-2.0 cum and 4.0 – 8.0cum for achieving the planned production and meeting the blending requirements. The waste excavation is also met with the machinery deployed as per the excavation plan. The excavated material including ROM & waste is loaded into dumpers and tippers of 85 to 100 tonnes capacity and 25-30 T capacity of trucks respectively for transportation of the material from mine face to crushing plant and mine face to dump yards respectively. For achieving the desired production and waste quantity as per the excavation plan approximately 600 trips of dumpers & tippers are required for internal transportation. For external transportation of finished products from stockyard to the end users approximately 900 to 1000 trips /day having tipper capacities of 10 Tons, 16 Tons and 21 Tons are required. PP has submitted that the total waste material generated up to 2018-19 is 5.17 million tonnes. The designated sites for waste dumping are namely AD-1, AD-2, Dump 3 and Dump

4. The proposed waste generation during life of mine will be 33.545 MT. Thus, the total waste proposed to be generated till life of mine shall be 38.715 MT.

Observation of EAC: *The Committee is of the view that there is difference in waste quantity the same needs to be verify.*

7. PP submitted that as per the **baseline data** and monitoring data, it is found that the ground water table is about 820mRL. However, the mine workings are limited up to 982 mRL up to the lease period & 898 up to the life of mine. Hence there is no intersection of ground water table with mine working & no permission is required for pumping of water. Water requirement of Kumaraswamy Iron Ore Mine is met from Naraihalla reservoir constructed by NMDC Limited. The maximum requirement of water for Kumaraswamy Project is 1,150 cu.m/day. Permission for withdrawal of 13.45 Cu.sec water from Narihalla Reservoir has been obtained from Water Resource Department, Gov. of Karnataka vide letter No. WRE 67 MTP 2013 dated 16.02.2017 for water allotment of 13.45 cusecs from Narihalla for a period of 5 years. NMDC has made necessary pumping arrangements for withdrawing water from Naraihalla reservoir up to Kumaraswamy Hilltop through a pipe line stretching up to 20 Kms. The water pumped to KIOM hill top is stored and distributed through the overhead tank having capacity of 727 cu.m. The water is consumed for following purposes: 1) Plain water dust suppression system at Dumper Platform (390 m³/day), 2) Domestic consumption (30 m³/day), 3) Dry fog Dust suppression system at Primary and Secondary Crusher (15 m³/day), 4) Plantation (50 m³/day), 5) Dry Fog DSS for DH (65 m³/day) and 6) Dry fog Dust suppression system at Mine Haul Road, Transport Road, Village Road, etc. (600 m³/day).

Observation of EAC: *The PP informed that air quality modelling was not done as there is no increase in the production capacity. But the Committee is of the view that air quality modelling needs to be done and details for selection of monitoring station, values at sensitive receptors etc. needs to be submitted.*

8. PP has submitted that in order to minimise the impact of mining on Environmental component outside the mine lease area, green belt zone of 7.5 m width has been established in Safety Zone inside the Mine lease area. Total Safety zone area is 14.03 Ha out of which 6 Ha has been afforested by planting 15000 saplings. **The balance area shall be afforested in the next two years.** The green belt will act as a barrier to trap the suspended dust particles and also suppress air pollutants. The plantation work at Kumaraswamy Iron Ore mine is a continuous process. As shown in Table 4.17, a total of 1,99,000 plants have been planted in 58.7 ha in the mine lease area till 2018-19. **PP has further submitted the proposed plantation plan from 2019 onwards till conceptual stage which will cover an area of 421.86 ha for plantation of 10,54,650 saplings in the Excavation area, Waste Dump area, Infrastructural area, Mineral Storage area, roads, safety zone, green belt, conveyor corridor and unused area after digitization.** For stabilization of sloppy areas rows of grasses will be planted.

9. PP submitted that the KIOM mining lease of 639.8 ha comprising of **480.79 ha Forest Land** and 159.01 ha non-forest land. Kumaraswamy Iron Ore Mine obtained forest clearance from MOEFCC for 341.20 ha vide letter no. F-No. 8-27/2005-FC dated 24.7.2006, out of which, 324.70 ha falls within Mining Lease Area and 16.5 ha outside mine lease for conveyer, approach roads, etc. However, after digitization of ML area by CEC, the ML area was reduced to 639.80 ha. The details of ML area showing breakup of revenue land and forestland before and after CEC survey is given below:

ML Area Showing Breakup of Revenue Land and Forestland before and after CEC Survey

Details	Before CEC Survey	After CEC Survey
1. Total Lease Area	647.50	639.80
1A. Revenue area	155.17	159.01

1B. Forest area	492.33	480.79
Breakup of Forest Area as per FC Act		
Diverted under section 2(ii) of FC Act	324.70	321.78
Un-diverted under FC Act	167.63	159.01*

**Note: PP has submitted that *General approval obtained for remaining forest land of 159.01 ha (480.79- 321.78) under section 2(iii) of F C Act, 1980 for which NPV amount of Rs.12.76 Cr has been paid on 23.08.2016 based on demand note received from DCF, Ballari vide letter MI/MNG/NMDC/MLNo.1111/AR/CR-13/2014-15/959 dated 12.8.2016.*

The details of payment made towards Safety Zone, Compensatory afforestation and Net Present Value for diversion of 341.20 Ha in favour of M/s NMDC Kumaraswamy Iron Ore Mine is as follows:

Sl. No.	Description	Amount (Rs.)
1	Safety Zone	12,96,800.00
2	CA	3,69,86,080.00
3	NPV	22,53,01,000.00
	Total	26,35,83,880.00

NPV payment of Rs. 12.7 Cr has already been made on 22.08.2016.

PP has also submitted that there are no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves located within 10 km radius of the mine lease. (Earlier EC obtained during 29th Oct 2004 also specified that no wild life sanctuaries etc. are within 10km of ML area.). The PP stated that FRA is not applicable on already diverted Forest Land of 321.78 Ha. For the remaining Forest Land of 159.01 Ha, general approval has been obtained under Section 2-(iii) of F C Act, 1980 by payment of NPV charges and compliance of FRA. The FRA has been obtained for 167.63 Ha (before CEC survey). After CEC survey the area has become 159.01 Ha. The FRA certificate has been issued from office of the Deputy Commissioner, Ballari District vide letter No. Rev/Mining/F.R.A./61/14-15 dated 24/07/2015.

Observation of EAC: *The Committee is of the view that PP shall clarify whether the remaining forest land will be diverted or surrendered. In case it is diverted than status of Forest Clearance needs to be submitted.*

10. PP submitted that the presence of Schedule-I species in the core and buffer zone are not reported. Apparently, there is no presence of rare and endangered plants in the study area. There are also no endangered and threatened fish found in the study area. PP has submitted the letter issued by DCF, Ballari vide Letter No. M1/MNG/B/FF/2006-07 dated 13.04.2020 w.r.t. report on Flora and Fauna present in the area of Kumaraswamy Iron Ore Mines pertaining to M/s. NMDC.

Observation of EAC: *The Committee is of the view that PP shall submit list of schedule-1 species duly authenticated by concerned department. In case there is presence of Schedule-1 species than conservation plan needs to be prepared for the same. In addition to this PP should submit the proof of submission of conservation plan to chief wildlife warden.*

11. PP submitted that the **Baseline** environmental data generation for air, water, noise and soil quality in the core and buffer zones of the defined study area was carried out during summer 2019 for generation of base line data from March'2019 to May '2019. The predominant wind direction was SSW over 12.5% of the time in which speed of 1.0 to 16.8 m/s was recorded. The next predominant direction was W over 11.2% of the time in which speed of 1.0 to 16.5 m/s was recorded. The ambient air quality parameters at all the locations are found within limit (As per NAAQS Limit). PP has also submitted Mineralogical composition in respect to the Free Silica of PM10. The ground water results from all the sampling locations shows that all the parameters are well within the acceptable limit of IS:

10500 except the Hardness which is higher than prescribed limit but below the permissible limit. The surface water result shows that all the parameters are well within the prescribed limit of IS: 2296 (Class C). The noise levels were found to be within the prescribed limit of 55 dB (A) & 45dB (A) for residential area in day and night time respectively. As per guidelines for capacity of roads in rural areas of IRC, recommended design series volumes for two lane roads are 15000 PCU/day. Hence the traffic is within the standard limit even if it is 80% of 15000 PCU/day (Due to reduced road condition) which is 12000 PCU/day. The pH of the soil is neutral to slightly alkaline in nature. The nitrogen, phosphorus and potassium (NPK) values are less, which indicates that the soil is not supportive to plants growth. Based on the results, it is evident that the soils are not contaminated by any pollution sources. PP has reported that Biological studies were conducted wherein rare, endangered or threatened species were not observed during the study in the study area.

Observation of EAC: *The PP informed that air quality modelling was not done as there is no increase in the production capacity. But the Committee is of the view that air quality modelling needs to be done and details for selection of monitoring station, values at sensitive receptors etc. needs to be submitted.*

12. The Project Proponent submitted that the Kumaraswamy Iron Ore Mine is an existing project, the proposal is obtaining environment clearance from EIA notification 1994 to EIA notification 2006 vide MOEF&CC circular dated 06.04.2018. Hence **Public Hearing is exempted.**

Observation of EAC: *The Committee is of the view that PP shall provide the issues raised during previous PH and status of implementation of compliance made during PH.*

13. PP submitted that the activities and budget has been earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M. No. 22-65/2017-IA.II (M) dated 01.05.2018. As per the mentioned circular, 0.5% of the Capital Cost for the Brownfield projects is to be earmarked towards Corporate Environment Responsibility which works out to be Rs.2.75Cr in case of KIOM. Budget allocated towards CER by NMDC is Rs.3.05 Cr. The works to be undertaken under CER shall include activities such as 1) Creation of Health infrastructure & assistance (50 lakhs), 2) Creation of Education facilities (50 Lakhs), 3) Infrastructure development (50 Lakhs), 4) Environment sustainability (50 Lakhs), 5) Hygiene and Health (25 Lakhs), 6) Sustainable livelihood (30 Lakhs), 7) Development of Sports facility & cultural activity (20 Lakhs) and 8) Skill Development (30 Lakhs).

Observation of EAC: *The Committee is of the view that PP did not provide the time line for implementation of the activities proposed. The activities proposed is not quantified for the future monitoring.*

14. PP reported that rehabilitation and resettlement is not applicable in the said area.

15. The Project Proponent has submitted that capital cost made on environment is Rs 549.4 Lakhs (as on 31/03/2019) which includes 1) Dry fog Dust suppression system in plant & downhill conveyor (200 Lakhs), 2) Dust suppression through water tankers for mine haul roads (128.9 Lakhs), 3) 28 KL water sprinkler (150 Lakhs), 4) Fixed water sprinkler (11.5 Lakhs), 5) Vibration meter (9 Lakhs) and 6) Continuous Ambient air quality monitoring system (50 Lakhs). PP has further proposed to spent Rs 165 Lakhs (up to 31/03/2020) which includes 1) Construction of ETP (10 KL) – 70 Lakhs and 2) Canon Mist on Haul Road – 95 Lakhs. Recurring cost incurred per annum is Rs. 1051 Lakhs & proposed per annum is Rs. 971 Lakhs as below:

SL. No.	Head	Expenditure per annum	Expenditure (in	Expenditure per
---------	------	-----------------------	-----------------	-----------------

		Rs.lac) (based on last 5 years)	annum (Rs.lac) based on coming 5 years)
1.	Environmental Monitoring	30.00	30.00
2.	Dust suppression on mine haul roads, dispatch roads etc.	210.00	210.00
3.	Construction & Maintenance of check dams/check bunds etc.	200.00	200.00
4.	Maintenance of drainage system	58.00	58.00
5.	Construction & Maintenance of toe wall /buttress wall etc.	100.00	20.00
6.	Maintenance of horticulture parks	50.00	50.00
7.	Implementation of Reclamation & Rehabilitation works(R& R)	403.00	403.00
	Total	1051.00	971.00

Observation of EAC: *The Committee is of the view that PP should prepare the EMP till the lease validity and future extension and time bound, activity wise EMP along with budgetary provision both recurring & capital needs to be submitted.*

16. PP submitted that amount allotted for the OHS programs of Donimalai Complex for the financial year 2019-20 is Rs.50 Lakhs. The organization has ISO certification for OHSAS.

Observation of EAC: *The Committee is of the view that activities and budgetary provision till the proposed lease validity needs to be submitted.*

17. PP submitted that certified EC compliance report received from MoEF&CC, Regional Office, Bangalore vide letter dated 01.05.2019.

18. PP submitted that there are no litigations pending against Kumaraswamy project. The PP submitted that the past production details are given in terms of dispatch quantity since royalty is paid on sold quantity in the state of Karnataka. Dy. Director, Dept. of Mines & Geology, Hospete vide letter dated DGM/DDH/ML/2018-19 /3590 dated 18.09.2018 has furnished the dispatch and royalty details for the year 1993-2011 -12 in respect of KIOM ML 1111. The similar data received through e-mail dated 20.09.2018 for the period 2012-13 to 2017-18 by the monitoring committee who is the nodal agency for selling of iron ore through e-auction is submitted by PP. PP has stated that these details have already been submitted to MOEFCC vide letter no. DNM/ENV/132M/2018/2132 dated 16.10.2018 at the time of seeking the TOR for the project proposal. Further, on perusal of the data submitted, it was observed that there was an increase in production after 1993-94 to 2003-04 (as Environmental Clearance for a production capacity of 7.0 MTPA was received on 29.10.2004), therefore, NMDC Limited has submitted Affidavit bearing Certificate No. U 117191/92/93 dated 16.11.2018 to MOEFCC in compliance to Hon'ble Supreme Court Judgement dated 02.08.2017 in writ petition (Civil) No.114 of 2014 in matter of common cause verses union of India and others. PP had earlier submitted the Past production data for the period from 2008-09 to 2017-18 certified by DMG, Government of Karnataka vide letter No. DMG/DDH/ML/2018-19 dated 26.06.2018.

19. PP vide letter No. DNM/ENV/EC/2019 dated 23.12.2019 has given an undertaking vide Letter No. 18478/OMC/F&E/2018 dated 17.12.2018 that they hereby certify that the contents (information & Data) given in the EIA/EMP report of Kumaraswamy Iron ore mine (ML No.1111) of M/s. NMDC Limited are correct. The prescribed ToRs have been complied with & presented in the EIA/EMP report. The Consultant in the EIA report has given a declaration stating that they confirm that the experts prepared the EIA Kumaraswamy Iron Ore Mine Project of M/s

NMDC Ltd. They also confirm that EIA Coordinator (EC) has gone through the report, and the consultant organization shall be fully accountable for any misleading information. It is certified that no unethical practices, plagiarism involved in carrying out the work and external data / text has not been used without proper acknowledgement while preparing this EIA report.

20. The Proponent submitted that total Capital Investment proposed for Kumaraswamy Project is about Rs. 899 Crores out of which an expenditure of Rs.664 Cr has been incurred. Presently 169 people are permanently employed and 271 people are on contractual basis. The existing manpower (direct & indirect) is 440.

21. Based on the discussion held and document submitted the Committee **deferred** the proposal and is of the view that proposal may be considered after submission of following information:

- (i) PP needs to verify the waste quantity submitted in the EIA Report.
- (ii) PP needs to undertake air quality modelling and should also submit details for selection of monitoring station, values at sensitive receptors etc.
- (iii) PP shall clarify whether the remaining forest land will be diverted or surrendered. In case it is diverted than status of Forest Clearance needs to be submitted.
- (iv) PP shall submit list of schedule-1 species duly authenticated by concerned department. In case there is presence of Schedule-1 species than conservation plan needs to be prepared for the same. In addition to this PP should submit the proof of submission of conservation plan to chief wildlife warden
- (v) PP shall provide the issues raised during previous PH and status of implementation of compliance made during PH.
- (vi) PP needs to provide the time line for implementation of the activities proposed under CER. The activities proposed also needs to be quantified for the future monitoring.
- (vii) PP should prepare the EMP till the lease validity and future extension and time bound, activity wise EMP along with budgetary provision both recurring & capital needs to be submitted
- (viii) PP shall submit the activities and budgetary provision till the proposed lease validity under OHS.

2.10 Amanganj Limestone Mine of M/s ECO CEMENTS LIMITED proposed production capacity of Limestone: 2.8 Million TPA, Top Soil: 0.12 Million TPA & Over Burden/Sub Grade: 3.8 Million TPA, Total Excavation: 6.72 Million TPA from the mine lease area of 1793.59 ha, located at Villages: Beli, Baraha Kala, Hinauti, Tehsil: Gunaur and Villages: Chikalhai, Daharra, Gaura, Hinouta Mishra, Kanti, Mahewa, Patelpura, Pawaiya, Tehsil: Amanganj, District: Panna, State: Madhya Pradesh[Proposal No: IA/MP/MIN/152360/2020; File No. J-11015/29/2020- IA.II (M)] -Terms of Reference

1. The proposal of M/s ECO Cements Limited is for grant of Term of Reference for proposed production capacity of Limestone: 2.8 Million TPA, Top Soil: 0.12 Million TPA & Over Burden/Sub Grade: 3.8 Million TPA, Total Excavation: 6.72 Million TPA from the mine lease area of 1793.59 ha, located at Villages: Beli, Baraha Kala, Hinauti, Tehsil: Gunaur and Villages: Chikalhai, Daharra, Gaura, Hinouta Mishra, Kanti, Mahewa, Patelpura, Pawaiya, Tehsil: Amanganj, District: Panna, State: Madhya Pradesh. The site falls in SOI Toposheet No. G44U3 (Core Zone), and G44U2, G44U3, G44U6, G44U7, G44T15 (Buffer zone) between

Latitude 24°23'10.44"N to 24°28'34.00"N and longitudes 80°04'21.03"E to 80°11'38.65"E in the Seismic 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", Project or Activity 1(a) – 3, as the Mining lease area is more than 100 Ha. PP has applied vide **Proposal No. IA/MP/MIN/152360/2020 dated 29.06.2020 and has submitted Form-I and Pre-Feasibility Report.**

3. The PP has submitted that ECL had obtained Prospecting License for exploration of limestone over 1826.19 ha area vide letter no. F-2-2/2011/12/1, Bhopal dated 16.04.2013 and Prospecting License was executed on 09.07.2013 for a period of two years by Mineral Resource Department, MP Govt. ECL had applied mining lease for an area of 1826.190 ha on 31.12.2014. Subsequently, Mineral Resource Department, MP Govt. granted the Letter of Intent for 1793.59 ha area vide letter no. F-3-86/2015/12-1, Bhopal dated 06.02.2017 in favor of M/s. Eco Cements Ltd. Lease deed was granted vide letter no. F-3-86/2015/12-1, Bhopal dated 06.10.2018 and same has been executed dated 17.10.2019 for a period of 50 Years.

4. The PP has submitted that the total Mining lease area is 1793.59 ha, out of which 57.723 ha is Govt. land and 1735.867 ha is Private land. No forest land is involved. There is no National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, and Wildlife Corridors etc. within 10 km radius of the mining lease area.

5. The PP has submitted that Mining Plan along with Progressive Mine Closure Plan has been approved by IBM vide Letter no.- MP/Panna/Limestone/MPLN/G-24/18-19/5890, dated 10/08/2018.

6. The PP has submitted that the mining operations will be carried out by fully mechanized opencast method, utilizing Heavy Moving Earth Machinery (HEMM i.e. hydraulic excavators, rear dump trucks, hydraulic drills, bull dozers, etc.) in conjunction with deep hole and blasting with the use of suitable explosives. Bench height of 10 m will be maintained in overburden and limestone respectively depending on the thickness of individual lithounit. ECL will 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 (to be located at Plant Site). Limestone will be transported to captive cement plant through dumper via road. It is planned to achieve an average limestone production of 2.8 million ton per annum to meet the demand of the proposed 1.65 million ton per annum clinkerization plant capacity plant. A total of 20.427 million tones mineable limestone reserve out of total 156.290 million tones resources have been estimated in ML Area. The expected life of mine @ 2.8 million tonne per annum limestone consumption with the present reserves of 20.427 million tones works out to about 8 years. It is anticipated that about 131.67 million tones limestone reserves would be available in the ML Area after detail exploration. This will further increase the life of mine by 47 years. About 0.12 MTPA top soil & 3.8 MTPA OB/sub grade will be generated. At conceptual stage 0.73 million tonne Top soil, 13.86 million tonne OB & 6.914 million tonne subgrade limestone will be exploit. Topsoil will be stacked separately & later utilized for plantation. OB will be temporarily dumped at earmarked site in the mined out area & will be backfilled & stabilized by plantation later. Subgrade will be stacked separately & it may be used by blending with limestone for cement manufacturing.

7. The PP has submitted that the total mining lease area is 1793.59 ha. Greenbelt will be developed along the 7.5 m wide lease periphery. Local and fruit bearing species will be planted after consultation with local forest officer and as per CPCB guidelines. Density of plantation would be 1500 trees/ha. At conceptual stage out of total excavated area, part of area will be backfilled and

rest will be converted into water reservoir. Plantation will be done on backfilled area, safety zone of roads and towards nallah etc.

8. The PP has submitted that the total water requirement will be 100 KLD. Out of which 10 KLD will be allotted to drinking & sanitation requirements, while dust suppression will require 60 KLD, for Green Belt 20 KLD, and for others purposes 10 KLD. All the water requirements will be met from Mine sump water as & when developed and from Ground water after obtaining necessary clearance from Competent Authority. PP has submitted an application for ground water abstraction to CGWA/CGWB, Bhopal vide Application No. 21-4/999/MP/MIN/2020 dated 20.06.2020. Waste water generated from mine office, rest shelters etc. will be disposed in soak pit via septic tank. Oil – Water separator will be provided at the workshop and treated water will be re-cycled for equipment washing & dust suppression etc.

9. As per approved mining plan total excavated area during first 5 years will be 53.6 ha and during first 8 years as 208.94 ha considering G1 and G2 exploration. Detailed exploration is proposed to be carried out in entire area after mine opening in initial years. However, the environmental impact assessment for the entire ML area 1793.59 Ha will be undertaken which comprises area under excavation, infra-structure development and planned reclamation like backfilling and regressing, creation of water bodies etc besides greenbelt/plantation development.

10. Mining Lease has been divided into blocks due to grant of lease after excluding the roads, water bodies, village along with their statutory barriers. No village shifting involved in this project.

11. The 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. The PP has submitted that the estimated project cost is Rs. 114 Crore. Total Manpower required for the proposed project will be 80. The mining establishment presents vast opportunities of employment under various cadres, viz. management, supervisory, highly skilled, semi-skilled and unskilled workmen, casual, etc.

13. After detailed presentation by the consultant including the viewing of KML file, the committee made following observations: -

- i. Total mine lease area is 1793.59 ha fragmented into 22 Blocks, out of which, 14 mineable blocks over 1501.30 Ha area delineated after excluding the village roads, water bodies, habitation etc. along with their applicable statutory barriers.
- ii. The mining lease is surrounding the number of habitations namely, Ghatari; Daharra; Gaura Khrud; Kanti; Barha Kalan; Hinuati Patna; Beli; etc.
- iii. The proposed mining islands the seven (7) habitations; 3-4 village ponds; 17 numbers of private structures/area; all connecting roads to these habitations.

14. The committee after detailed deliberations is of the view that the proposed mining scheme is not acceptable, as all the sides of the 7 villages, 3-4 Village ponds; both sides of the connecting roads were proposed for mining. Therefore, the committee **returned the proposal in the present form** and advised the project proponent to fragment the lease into different phases and revise the mining plan in consultation with IBM, keeping in view of the habitations, water bodies and connecting roads, in such a way, that the sequential mining between the blocks and no islanding of village at any given point of time shall happen. Further, clear demarcation of safety barrier of not less than 100 m against the habitation and 50 m against the roads and village ponds shall be left and planned for plantation / greenbelt.

2.11 Kujam II Bauxite mine of M/s Hindalco Industries Limited (HIL) (Production Capacity of Bauxite Mine: 3.0 Lakh TPA and Mine lease area is 157.38 Ha) located at Chirodih & Bishunpur, Gumla, Jharkhand – EC under 7(ii) of EIA Notification for new installation of Mobile Beneficiation unit in the existing operating Kujam-II bauxite mine

[Proposal No. IA/JH/MIN/153859/2020; File No. IA-J-11015/297/2011-IA-II(M)]

1. The proposal of M/s Hindalco Industries Limited (HIL) is for environmental clearance for the installation and operation of new mobile bauxite beneficiation unit within the Kujam II bauxite mine lease area under clause 7(ii) of EIA Notification, 2006. The Kujam II Bauxite mine operating with production capacity 3.0 Lakh TPA and Mine lease area 157.38 Ha located at Chirodih & Bishunpur, Gumla, Jharkhand. The mining lease area lies between latitude 23°17'58.26"N to 23°19'11.21"N and Longitude 84°17'18.83"E to 84°18'14.47"E in survey of India Toposheet No.73A/7. The area falls under Zone-II (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", Project or Activity 1(a) as the Mining lease area is more than 100 Ha. The proposed activity is covered under item 2(b) of EIA, Notification, 2006

3. The PP submitted that the Environmental Clearance was obtained for Kujam II mine vide letter no. J-11015/242/2005-IA.II (M) on 14.08.2006. Further, Environmental Clearance (EC) has been obtained for enhancement in production from 0.15 MTPA to 0.3 MTPA from Ministry of Environment Forest & Climate Change (MoEF&CC) vide letter no J-11015/297/2011-IA. II, dated 21.07.2015 in favour of M/s Hindalco Industries Limited.

PP has now applied vide Proposal No. IA/JH/MIN/153859/2020 dated 16.06.2020 and has submitted the EMP addendum report seeking environmental clearance for the installation and operation of new mobile bauxite beneficiation unit within the Kujam II bauxite mine lease area.

4. PP submitted that Hindalco (including merged entity of erstwhile Indian Aluminium Company) was originally granted Kujam-II Bauxite in the name of M/s Indian Aluminium Company Limited (INDAL) over an area of 157.38 hectare vide order no. 3BM II -2097-1589/M 12.04.2005. Subsequently in the year 2006, the Mining Lease deed executed over an area of 157.38 hectare in Village/ Mouza – Kujam & Chirodih, Thana Bishunpur, District – Gumla, State – Jharkhand for a period of 20 years from 24.03.2006 to 23.03.2026. Further, State Govt. of Jharkhand extended the mining lease period as per the MMDR Amendment Act 2015 up to 23.03.2056 through supplementary lease deed execution. Accordingly Lease deed has been executed vide Certificate Reference No. IN-JH05089578126626P on 15.03.2017 for the period from 23rd March 2005 to 24th March, 2056. Out of the mining lease area of 157.38 Ha, 5 Ha will be used for the proposed mobile Beneficiation unit. The unit will be skid mounted/mobile, so, post its use it will dismantled and will be shifted and therefore no permanent change in land use is envisaged. The present land use of the mine lease area is predominantly agricultural land. The land is already under possession of M/s. Hindalco Industries Limited, Ranchi.

5. The PP submitted that Approval of Review Mining Plan along with Progressive Mine Closure Plan after incorporating the details of Beneficiation Plant has been approved vide letter No RAN/GML/BX/MP-24/2018-19 dated 18.02.2019.

PP submitted that Balance life is 6 years, which is based on current estimate of resource /reserves. No external OB dumps exist at present and will be done in future. No Internal Dumps area envisaged. Concurrent backfilling will

be carried out. Solid waste to be generated is over burden/top soil. These waste materials will be used for refilling and reclaiming the mined out lands. It is proposed to reclaim the mined out land to bring back to its approximate original contour by backfilling waste materials. Rejects/Residue (non usable) also coming out of mobile beneficiation plant will be backfilled in mine out land for backfilling purpose.

6. The Proponent submitted that the mobile bauxite beneficiation unit is proposed to be operated on wet process with a production capacity of approx. 200 TPH to remove impurities from the ore produced in bauxite mine. The impurities in bauxite increase the cost of mining, handling and transportation. More importantly they increase cost of downstream products because of waste handling and disposal. The impurities also reduce the capacity utilization, productivity and efficiency of the plant. Due to such problem it is widely recognized that the bauxite ore should be purified (or beneficiated), preferably where it is mined, to remove iron and other impurities. This plant will remove impurities in bauxite which will help in reduction of environmental problems associated with mineral handling and transportation. As impurities will be segregated at pit head only, this will reduce generation of red mud at end use plant which is major problem industry is facing i.e. red mud handling. The removal of impurities at pit head will also help in enhancing capacity utilization, productivity and efficiency of the plant.

Process Description: In proposed beneficiation unit, bauxite will be fed from the stockyard to grizzly to the vibratory screen for sizing of the ore and then into the beneficiation unit comprising of drum scrubber, dewatering/vibrating screens of -20mm and -5mm, thickener unit, pump box, tailing pond and water reservoir. Bauxite produced from the mine and the product after beneficiation would be feed to the end use plant being a captive mines. The unit will be of mobile type and all structures will be moved post completion of project and land will be restored as per approved mine closure plan. Rejects will be backfilled in mined out areas. After reclamation, the mined out area will be afforested with indigenous species as being done presently. No permanent new construction is proposed, required infrastructural facilities like Administrative Building, water reservoir, power requirement etc. already exist.

The geological reserves are 2.49 MT and minerable reserves is 2.04 MT. The stripping ratio is 1:1.31 (t/m³). The total quarry area is 121.89 ha. Backfilled quarry area of 119.52 ha shall be reclaimed with plantation. A void of 2.37 ha at a depth of 10 m which is proposed to be converted into a water body. Void will be ranging from 1063 mRL to 1053 mRL.

7. PP submitted that the existing mine water requirement is 23 KLD. The water requirement for proposed mobile beneficiation plant is approx. 190 KLD which includes Dust suppression and. Maintenance (12 KLD), Washing and cleaning of earthmoving equipment (2 KLD), Drinking system (1 KLD), High pressure fogging system at crusher (1 KLD), Beneficiation Unit (166 KLD), Afforestation, Vegetation and Horticulture (5 KLD) and Miscellaneous (3KLD). The required water will be met from the existing rain water harvesting ponds. Make up water requirement will be less as because 90 % water will be recovered & recycled. The source of water is the existing two rainwater harvesting ponds where sufficient quantity of water available. Pond- 1 (125 m x 75 m x 15 m) and Pond-2 (100 m x 60 m x 8 m) having a capacity of 1,88,625 m³ put together. The mining project is located in an isolated elevated place. The groundwater levels is around 37-39 m BGL. No ground water or water from streams etc will be used in this unit. NOC for Ground water abstraction from CGWA has been taken vide Lr. No. CGWBMER / CGWA /NOC 2019-68 dated 10.01.2020. There is no generation wastewater either they are evaporated and during process of beneficiation the water content will be as moisture, which will be sent to the backfilling area.

8. The PP has submitted that the mined out rejects are being back filled and reclaimed simultaneously in the mined out area. After reclamation the area is

being afforested with indigenous species. PP has developed Peers Garden, Cashew nut garden, Teak wood plantation. Its main focus is to plant mainly fruit bearing and local trees. The greenbelt development not only functions as a foreground and background landscape feature resulting in harmonizing and amalgamating the physical structures of the mines with surrounding environment, but also acts as a pollution sink as indicated above. Thus, implementation of afforestation program is of paramount importance. In addition to augmenting existing vegetation, it will also check soil erosion, make the ecosystem more complex and functionally more stable and make the climate more conducive. Activities are involved for procurement of seeds, raising of seedlings, digging of pits, planting and caring the plants for manure to ensure at least 90% of plant survival. PP submitted that it is proposed to plant 8250 saplings in an area of 3.30 ha. The budget earmarked for the same is Rs. 3 Lakhs.

Sl. No.	Particulars	Existing (ha)	Proposed (ha)	Total (ha)
1	Area of Green Belt	10.97	3.30	14.27
2	Agro reclamation plantation	56.06	55.88	111.64

9. The PP submitted that the present land use of the mine lease area is predominantly agricultural land. Out of the 157.38 ha, no forest land is involved, 140.10 ha is agricultural land and 17.28 ha is waste land. PP has reported that No such National Parks/Wildlife sanctuaries present within 10 Km from ML boundary.

10. The PP submitted that there is no Schedule-I Species in the project area.

11. Since it is a Major Mineral so District Survey report is not applicable.

12. ThePP has submitted thatBaseline air quality monitoring have been carried out by M/s. Mahabal Enviro Engineers Private Limited, Ranchi from April 2019 to February 2020. The monitoring of air quality (8 locations), water quality, noise was carried out. The results show that all the values are observed to be within the permissible limits.

13. The instant application is under clause 7(ii) of EIA Notification, therefore, fresh Public consultation was not carried. Earlier Public Hearing was earlier conducted on 11.07.2013. The advertisement for Public Hearing was made on 10.06.2013 in newspapers - "Prabhat Khabar" and "Dainik Bhaskar." PP has submitted that implementation of Action Plan is being carried as per the issues raised during the Public Hearing.

14. ThePP has allocated Rs. 0.3239 Crores towards CER.

15. The PP submitted that the regular and periodical medical examination of the workers engaged in project is being carried out and records are being maintained as per statute. As it is operating mines -PPE's such as safety shoes, ear plug, goggles are being provided. Periodic training on safety & occupational health is being imparted to workers and health checks up conducted. A budget of Rs. 300 lakh is earmarked towards Occupational health Monitoring.

16. ThePP reported that there will be no rehabilitation and resettlement proposed in the lease area.

17. The PP has made a budgetary provision of Rs. 4 Crores as Capital Cost and Rs. 0.599 Crores as recurring/ annum towards Environmental Management Plan.

18. ThePP submitted that here is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

19. ThePP has submitted the affidavit vide Certificate dated 10.07.2020 as per the Ministry's Office Memorandum No.350/2017-IA.III(Pt.), 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.

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 Estimated project cost will be Rs. 12 Crore. The total manpower deployed is 303. The manpower required during operational stage of beneficiation plant will be approx. 15 persons. More than 95% of the employees are locals which are available at site.

21. The PP vide its letter No. HIL/LHD/ENV/MOEF&CC/KUJAM-II/564 dated 11.06.2020 has submitted that they are in process of obtaining Certified compliance for EC (3 LTPA) from concern Regional MoEF&CC. PP has also submitted the Compliance Report of EC Conditions to RO, MoEF&CC vide letter No. HL/LHD/ENV/MoEF/520 dated 28.05.2020 for certification.

22. The PP has submitted copies of CTO from 2009 onwards. The latest CTO is obtained vide letter Ref. No. B-244 dated 22.01.2016 which is valid till 31.12.2020.

23. Further during the presentation before committee, the PP submitted the following:

- i. The said process is to be implemented in addition to the mining activity for which EC was already granted. At present, bauxite ore is being transported to the destination but post-implementation of the proposed project, the impurities from bauxite ore will be removed and enriched bauxite with low Silica, high Alumina (T.SiO₂ - 7.2 to 3.47% and TAA - 39.05 to 46.75%) and higher moisture content will be transported to the destination.
- ii. The proposed plant, i.e., Bauxite mine & Beneficiation plant will produce enriched bauxite ore of 2.1 lakh tons per annum, Therefore, the proposed project will bring around 30% reduction in production capacity and thereby reduced transportation of ROM outside the lease area.
- iii. Enriched bauxite ore will have higher moisture content which will reduce dust generation during transportation.
- iv. The proposed project has advantages, inter alia, including, no requirement of additional land; no use of water from natural resources; would lead to usage of low grade bauxite by separative reactive silica; on-site separation of waste; area required is only 5 Ha within the ML of 157.38 ha; etc.
- v. Process water generated from each section of plant is being recycled/reused. Hence zero discharge concept will be followed.
- vi. Once this initiative successful, it will establish bench mark for bauxite beneficiation in country (possibly globally) and can be implemented in other mines ensuring sustainability for bauxite mines.

24. After detailed deliberations the committee is of the opinion that the proposed establishment of mobile beneficiation plant is good initiative from optimization of resources and conservation of resources (utilization of low grade ores); reduction of red mud generation at the plant site; there is no use of chemicals. The committee also of the opinion that the proposed activity is within the ML area, for which EC was granted, therefore, the proposal may be considered

under clause 7(ii) (a) of EIA Notification, 2006. As per the provisions of EIA, Notification, 2006, the committee, with due diligence can decide for requirement of fresh EIA/EMP and Public consultation. In light of the provisions in vogue, the committee recommended the proposal under clause 7(ii) (a) of EIA Notification and decided to carry out comprehensive EIA/EMP of both mining and beneficiation plant based on the standard ToRs of mining and beneficiation plant and also following specific ToRs. Further, the committee recommended for exemption of requirement of fresh public consultation, as the activity is proposed in the existing ML area for which EC was accorded and optimizing the requirement of resources.

- i. Material balance at each stage of operations of the beneficiation plant.
- ii. Water balance circuit to achieve the Zero Liquid Discharge from the plant as proposed by the PP.
- iii. Management of rejects of the beneficiation plant
- iv. Impact of transportation of processed ore and waste/ rejects.
- v. Plantation around the proposed plant (width of green belt; species; period of plantation; etc.).
- vi. Cost benefit analysis of the instant proposal via-a-vis standalone beneficiation plant from environmental perspective.
- vii. Cumulative impact prediction of mining operations, beneficiation plant, transportation of the RoM, rejects, waste, concentrated ore, etc and cumulatative incremental GLCs at the receptors.
- viii. Comprehensive Environmental Management Plan.

2.12 Chenpura limestone mine of M/s Rathore Cement Private Limited for proposed Production capacity of 0.5 MTPA Limestone from the ML area of 12 Ha located at Survey No 333/1, Chenpura Village, Tehsil & District-Neemuch, Madhya Pradesh [Proposal no: IA/MP/MIN/155912/2020. File No. J- 11015/31/2020-IA.II(M)]- Terms of Reference.

1. The proposal of M/s. Rathore Cement Private Limited is for limestone Production of 0.5 MTPA Limestone from the Chenpura limestone mine having ML area of 12 Ha located at Survey No 333/1, Chenpura Village, Tehsil & District-Neemuch, Madhya Pradesh. The sites covered under Survey of India Toposheet no. 45L/14 (restricted by competent authority). The site falls in Zone – II as per IS: 1893 (Part-I): 2002.

2. PP has submitted that project fall in Category “A” as it attracts General condition point No. 4 of EIA Notification 14th Sept., 2006 since the 10 km radius boundary fall within two states (Rajasthan State & M.P State). PP has applied vide Proposal no: IA/MP/MIN/155912/2020 dated 24.06.2020 and has submitted Form-I and Pre-Feasibility Report.

3. PP has submitted that that initially M/s Rathore Cement Private Limited applied, to the Department of Mineral Resources, State Government of Madhya Pradesh for grant of a Prospecting License for Limestone near village Chenpura and District Neemuch. The Divisional Forest Officer, Department of Forests issued NOC regarding the applied area. The Prospecting License was granted by State Government of Madhya Pradesh vide their order no. F 2-26/2013/12/1 dated 01/03/2014. The deed of prospecting license was executed on 22/03/2014 for a period of three years from the date of registration of deed i.e. 26/03/2014. The condition no 11 of the PL grant order no F 2-26/2013/12/1 dated 01/03/2014 was amended by the State Government vide order no F 2-26/2013/12/1 dated 05/07/2014. The rider agreement was executed on 04/08/2014 in compliance of order dated 5/07/2014. Tehsil Collector, Neemuch

granted permission to enter up on the land of PL area and start prospecting work vide his letter dated 14/08/2015. LOI to sanction the Mining Lease has been issued by the government of M.P vide letter No. 3-59/2018/12/1 dated 03.10.2018. The State Government imposed the condition that approved Mining Plan should be submitted so that the ML can be sanctioned.

4. PP has submitted that no Forest land is involved within the lease area. The Land form is flat terrain. As per revenue records, the land is Govt. waste land. PP also reported that No National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, Wildlife Corridors, etc. falls within the study area.

5. PP has submitted that the Mining Plan with Progressive Mine Closure Plan has been approved by IBM vide letter no MP/Neemuch/Limestone/MPLN/G-07/19-20/3809, dated 19.12.2019. PP has submitted that it is proposed to produce approximately 0.5 million tons of ROM from the area every year. The mineral produced here will be supplied to Cement Plants. Proposed method of Mining will be mechanized opencast with drilling and blasting. For the systematic working of opencast mines, benching will be done. Bench height of 8.0m will be developed. Minimum bench width will be 8.0m (Bench width during excavation will be 25m). One Excavator of bucket capacity 2.1 Cum. Will be used. 7 tippers are proposed to be deployed for handling the limestone. Haul roads will be developed at minimum gradient of 1:16. Total Mineable Reserves of Limestone is 10730000 Tons. Total Expected Life of the Mine is 22 years. No waste material generation is envisaged during course of mining. No question to stabilize the waste dumps arises.

6. PP has submitted that during the mine life it is proposed to do plantation covering area of about 3.96 hectares. The total of 3960 saplings comprising of Neem, Opium, Gulmohor and similar type of species which can grow easily in this area will be planted. Plantation will be done along the boundary barrier (1.0ha) & along the Mine out benches (2.96ha).

7. PP has submitted that total water requirement is about 7 KLD – 8 KLD. Drinking water (0.5 KLD - 1.0 KLD) will be made available through PHED supply. Water for dust suppression (3 KLD - 4 KLD) and plantation (3.5 KLD – 3.0 KLD) will be arranged from nearby villages. Water table in the area is 70 – 80 m. A very little water will be accumulated scattered pockets in the part of the excavated mine out pit area during rains and part of pits serve as a natural ground water recharging structure. No Domestic and industrial waste water will be generated.

8. PP has submitted that for Occupational safety following measure will be taken. The workers will be trained in vocational training they get proper training in their particular work. They will be provided proper safety equipment such as safety boots, helmets, and lifeline etc. Proper benches will be formed. Apart from this all safety precaution will be taken as per Act, Rules and Regulation. Training for workers regarding occupational hazards will be provided. An occupational health unit will be organized and the proposed measures will be adopted: Pre & Periodical Medical Checkup program for all the workers and Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

9. PP has submitted that No R & R Plan is required for this project.

10. 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. 1.5 crores. The project will provide employment to 34 people.

12. Based on the discussion held and document submitted, the Committee **recommended** the proposal of M/s. Rathore Cement Private Limited is for limestone Production of 0.5 MTPA Limestone from the Chenpura limestone mine

having ML area of 12 Ha located at Survey No 333/1, Chenpura Village, Tehsil & District- Neemuch, Madhya Pradesh. In addition to Standard ToR the Committee also prescribed following additional ToR for this project:

- (i) 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.
- (ii) 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.
- (iii) The 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.
- (iv) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
 - (x) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
 - (xi) 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.
 - (xii) The PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation.
 - (xiii) 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.
 - (xiv) 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.
 - (xv) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
 - (xvi) 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.
 - (xvii) 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.
 - (xviii) 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.

- (xix) 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.
- (xx) District Survey Report as per Ministry's Notification S.O. 3611(E) dated 25.07.2018 needs to be submitted.
- (xxi) 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.

2.13 New Umrangshu Limestone Mine of M/s Assarm Mineral Development Corporation Limited (AMDC) with proposed production of 4,44,500 TPA (ROM) in the mining lease area of 200 Ha located near Village - New Umrangshu, Taluka - Umrangshu, Distt - Dima Hasao (N.C. Hills), Assam [Proposal No: IA/AS/MIN/160713/2017; File No: J- 11015/19/2017-IA.II(M)]-Environment Clearance Regarding

1. The proposal of M/s Assam Mineral Development Corporation Limited (AMDC) is for production of 4,44,500 TPA (ROM) from New Umrangshu Limestone Mine with mining lease area of 200 Ha. The mine lease is located near village New Umrangshu, Taluka Umrangshu, District - Dima Hasao (North Cachar), Assam. The lease area forms a part of Survey of India Topo-sheet no. 83C/NE & 83C/14. The lease area is bound within coordinates of 25°31'17.27"N to 25°32'40.56"N latitudes and 92°47'54.36"E to 92°47'26.39"E longitudes.

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 was earlier issued TOR vide letter No. J-110015/443/2012-IA.II(M) dated 06.12.2013, however, due to passage of 3 years, the ToR expired and PP again applied afresh for the ToR vide Proposal No. IA/AS/MIN/662692/2017 and submitted the Form 1, Pre-feasibility Report. The project proposal was considered during the EAC meeting held during March 20-21, 2017 wherein the Committee prescribed Standard TOR to the project for undertaking detailed EIA/ EMP studies. The Terms of Reference was issued by MoEF&CC vide letter No. J-11015/19/2017-IAI (M) dated 12.04.2017.

PP after conducting public hearing has now applied for Environment Clearance on PARIVESH vide Proposal No. **IA/AS/MIN/160713/2017 on 30.06.2020** and submitted the final EIA/EMP report after incorporating Public Hearing proceedings.

4. PP has submitted that the lease of 33 Ha was granted for mineral limestone on 21.09.1985 vide letter no PEM/22/84/34 for a period of 20 years. The Mining Lease was executed on 30.09.1988 for 20 years. The Company was granted another lease over an area of 167 hectares in the adjacent area in New Umrangsho vide letter no. PEM/22/84/228 dt. 17.06.1992, Mining Lease was executed on 24.08.1992 for 20 years. The Govt. of Assam had approved the proposal of renewal and amalgamation of mine leases vide letter no. PEM.22/84/Pt.I/11B dated 05.05.2010.

5. PP has submitted that Approval of mining plan along with progressive mine closure plan in respect of Limestone deposit of M/s Assam Mineral Development Corporation Ltd. Over an area of 200 Ha N/v-Umarngshu in Dima Hasao (N. C. Hills) district of Assam State, submitted under rules 16(1) of MCR 2016 & 23 (B) of MCDR 1988, and got approved vide letter No. IBM/GHY/AS/DH/LST/MP-78 on dated 01/12/2016.

6. The Project proponent submitted that the mining method will be mechanized open cast method of mining with the use of Excavator for loading of blasted rock. Bench height of 6.0 m will be developed and minimum bench width will be 18-25 m. Individual bench slope will be 800 from vertical. Excavator of bucket capacity 0.93 Cum. will be used. For ore and waste 15 tippers are proposed to be used. The targeted productions of Limestone mineral will be about 4,44,500 TPA. The area is located in hilly terrain and involves development of access road and removal of overburden. Mine is in operation and ancillary facilities are already established. It is proposed to produce 330,932 tonnes of ROM per year in the first year to 4,44,574 tonnes per year in fifth year. The mineral produced here will be sold to nearby industries. The total waste generated will be 481800 cum (in situ volume) and 626340 cum (broken rock volume). Waste generated during plan period and afterwards will be stored at the proposed site. A stone parapet wall will be constructed all around the waste dump. The wall will prevent any rollout of stones from dump. A garland drain will also be constructed all around the dump. This drain will arrest any wash out from the dump reaching the natural drainage system. There is no proposal for backfilling.

PP has submitted production data certified by DMG, Assam on 20.03.2020 for the period from 1994-95 to 2011-2012. It is also mentioned in the letter that production stopped since January, 2012 till now.

7. PP submitted that the limestone will be worked to a ultimate depth 304 mRL (11 mbGL) and depth of ground water level near mining lease area is found to be 295 mRL (20 mbgl) Postmonsoon 290 mRL (25 mbgl) post-monsoon. No water table intersects while mining, hence no hydrological study is required. No permission is required from Central Ground Water Authority for working below ground water and pumping of ground water. PP submitted that water requirement for domestic/drinking purpose is fulfilled through the nearby village/dug wells. The total water requirement for the project is estimated 12 KLD. Water for mining operation (dust suppression – 5.5 KLD) and for domestic & drinking purpose (2.0 KLD) will be supplied with the help of dug well/tube well situated in the nearby village and water tankers. Water will also be used for plantation (4.5 KLD).

8. PP has submitted that at the end of lease period total 65.180 ha. area will be planted which includes 5.180 hect area along lease boundary/ barren land, 10.0 hect around office and magazine site, 12.62 hect on either side of Amrenghallah, 27.38 hect on mined out benches and 10.0 ha. on dump area. A total of 65180 saplings will be planted till the end of lease period. The Company has proposed 2000 plants per year to be planted along lease boundary & on barren area. In the operational phase, 15.18 hectare will be covered by the plantation.

9. PP submitted that there is no forest land within the lease area. Hence, no forest clearance is required. PP has reported that No National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves / Critically Polluted Areas / Aravali (existing as well as proposed) within 10 km of the mine lease area. Krungming Reserve Forest is about 2.0 km in west direction of the mining lease area in the buffer zone. So no clearance is required by Chief Wildlife Warden.

10. PP submitted that a detailed biological study of the study area [core zone & buffer zone (10 km radius of the periphery of the mine lease)] has been carried out. During the course of survey, no threatened species were recorded in the study area. PP submitted that List of Flora and Fauna is authenticated by DFO, Dima Hasao Forest Division vide Letter No. FRS/G/21/1(B)/2016/PART-1/53-54 dated 05.10.2016.

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

12. PP has submitted that One season (non-monsoon) in winter season (December, 2013 to February, 2014 and Dec. 2017 to Feb. 2018) primary baseline data on ambient air quality (PM10 SO₂, & NO_x), water quality, noise level, soil

and flora & fauna has been collected. Site specific meteorological data also collected. Analysis results of both the monitoring for ambient air quality reveals that all the parameters are well within limits prescribed National Ambient Air Quality Standards for areas meant for “Residential and Rural Use. Noise levels recorded were found to be within limits during daytime and night time. The ground water table is in this region between 20 and 25 mts from the ground level. Ground water and surface water from all sources remains suitable for drinking purposes as all the constituents are within the limits prescribed for drinking water standards promulgated by Indian standard. PP has submitted that During the course of survey, no threatened species were recorded in the study area. PP further submitted that List of Flora and Fauna is authenticated by DFO, Dima Hasao Forest Division vide Letter No. FRS/G/21/1(B)/2016/PART-1/53-54 dated 05.10.2016.

13. The Project Proponent reported that Public hearing was conducted as per EIA Notification on dated 12.03.2020, at Lime Stone Mining Project Area of Assam Mineral Development Corporation Ltd. (AMDCL) Near Village – New Umrangsho, P.O.: Umrangsho, Dist – Dima Hasao, Assam. The public hearing was chaired by Shri DipakJidung, ACS, Addl. Deputy Commissioner, Dima Hasao District, Assam & Shri Arabinda Das, Assistant Engineer, Pollution Control Board, Assam, Regional Laboratory cum office, Silchar, Cachar, Assam and also attended by local peoples. The advertisement was published in newspaper – The Assam Tribune on 07.02.2020. During the process suggestion, objection was invited from the local people regarding the project. 108 people attended the hearing. During the public consultation, main issues discussed were employment to local people, environment protection & CSR.

14. PP has submitted that **Corporate Social Responsibility (CSR)** will ensure all the workers have been employed from nearby villages. The company will take interest for the welfare amenities scheme in the area with the help of local people; scholarship will be given to the students getting highest marks in District level/State level exams. The budgetary provision made towards CSR is Rs. 12 Lakhs per year. This includes – 1) Provide clean drinking facility in Umrangshu village (1 Lakhs), 2) Construct village road of Umrangshu (3.5 Lakhs), 3) Distribute free books & school uniform in School in Umrangshu village (1.5 Lakhs), 4) Construct washroom for girls at Umrangshu village (2 Lakhs), 5) Provide free medical health check-up camps & free medicine distribution (3 Lakhs) and 6) Give scholarship to bright students (1 Lakhs).

15. PP reported that there is no rehabilitation and resettlement in this project.

16. The Project Proponent submitted Capital cost of Environmental Management Plan is estimated to be about Rs. 28Lakhs and recurring cost is about Rs. 7.25 Lakhs. This include 1) Pollution Control – Rs. 5 Lakhs (Capital) and Rs. 1 Lakhs (Recurring), 2) Pollution Monitoring– Rs. 5 Lakhs (Capital) and Rs. 1.5 Lakhs (Recurring), 3) Plantation on Barren Area - Rs. 10 Lakhs (Capital) and Rs. 3 Lakhs (Recurring), 4) Occupational Health -Rs. 3 Lakhs (Capital) and Rs. 0.75 Lakhs (Recurring), and 5) Miscellaneous (Fencing, Garland Drains etc.) - Rs. 5 Lakhs (Capital) and Rs. 1 Lakhs (Recurring).

17. PP has submitted that the medical histories of all employees will be maintained as per mines rules, 1955 chapter – IV-A1. Thereafter, the employees will be subjected to medical examination on annual basis. The above tests keep upgrading the database of medical history of the employees. To avoid any adverse effect on the health of workers due to dust, heat, noise and vibration sufficient measures have been provided in the mining project such as Provision of personal protection devices to the workers, Rotation of workers exposed to noisy area, Dust suppression on haul road and First-aid facilities in the mining area.

18. PP submitted the there 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 give 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. 2.6 Crores. About 36 people will get direct employment and 10-20 people will also be affected indirectly and employed with allied and related industries, such as transportation, maintenance, etc. Small scale manual opencast mining has been proposed accordingly following persons are to be employed at the mine.

21. During the presentation, the project proponent informed that the mining operations were started from 1994-95 and the details of production made are as follows:

Year	Production in MT	Year	Production in MT
1994-95	Nil	2003-04	--
1995-96	99056.470	2004-05	--
1996-97	56271.040	2005-06	700.00
1997-98	45748.700	2006-07	2720.100
1998-99	25817.370	2007-08	23813.190
1999-00	47149.980	2008-09	19783.23
2000-01	39233.570	2009-10	44882.190
2001-02	29584.250	2010-11	39120.220
2002-03	Nil	2011-12	16874.72*

22. After detailed deliberations, the committee noted that the mining is in operation since 1994 without prior environmental clearance, therefore the mining since 1994 is constitute as a violation of EIA Notification, 1994 and 2006. Since the instant proposal is under consideration in the Ministry before the time window of S.O.804 (E), dated 14.03.2017 for Terms of Reference (during 2013 and 2017), and in pursuant to the OM vide F.No. 22-10/2019-IA.III, dated 9th September, 2019, instant proposal may be considered as a lateral entry for appraisal under S.O.804 (E), dated 14.03.2017.

24. Member Secreatry informed that during the recent meetings with the Secretary, EF&CC directed to consider the proposals, which are found/ reported / congnozinated and proposed for lateral entry for appraisal under S.O.804 (E), dated 14.03.2017, for dealing as violation case, by the concerned sectoral EAC in leiu of forwarding to Violation Sector as per the OM vide F.No. 22-10/2019-IA.III, dated 9th September, 2019.

25. Chairman, EAC agreed to consider the instant proposal for appraisal under S.O.804 (E), dated 14.03.2017 and the committee, recommended to prescribe the following additional ToRs in respect of violation under the provisions of S.O.804 (E), dated 14.03.2017 for preparation of additional chapter to the EIA/EMP already prepared based on the ToR granted on 12th April, 2017. The committee also exempted the requirement of fresh EIA/EMP and public consulation, since the EIA/EMP and Public consultation was carried recently for the proposed production capacity and ML area and as per the order of Hon'ble Madras High Court, repeat PH is not required. Therefore, the PP may submit the revised EIA/EMP incorporating the compliance to the following additional ToRs as a separate chapter.

- i. The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act,

1986, and further no consent to operate or occupancy certificate to be issued till the project is granted EC.

- ii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- iii. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- iv. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- v. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- vi. Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
- vii. The Project Proponent shall give 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. before grant of ToR/ EC. The undertaking, *inter-alia*, include commitment of the PP not to repeat any such violation in future.

26. Therefore the proposal is **deferred**

2.14 Brishynot Limestone Deposit-II mine of M/s Star Cement Meghalaya Limited proposed production capacity of Limestone-216552 Tonnes per annum and 49727 Tonnes of Shale from the mine lease area of 4.714ha, located in village Brishyrnot, District East Jaintia Hills of Meghalaya state [Proposal no: IA/ML/MIN/161202/2020. File No. J-11015/30/2020-IA.II (M)] – Terms of Reference.

1. The Proposal of M/s Star Cement Meghalaya Limited is for grant of Term of Reference for proposed production capacity of Limestone-216552 Tonnes per annum and 49727 Tonnes of Shale from Brishynot Limestone Deposit-II mine from the mine lease area of 4.714ha, located in village Brishyrnot, District East Jaintia Hills of Meghalaya state. The lease area falls in the Survey of India Toposheet No. 83C/8 (Restricted) at latitude 25°9'59.763" to 25°10'10.506" N, and longitude 92°24'22.070" to 92°24'34.794"E. The area falls under Seismic Zone-V, as per IS 1893 (Part 1): 2002.

2. PP has submitted that since the General Condition (GC) is applicable in this project as it falls within a distance of 2.8 km from Narpuh Wildlife Sanctuary, therefore, proposed project has been considered under "A" category. The project is at a distance of 1.45 km away from Eco Sensitive Zone (ESZ) of Narpuh Wildlife Sanctuary. PP has applied vide Proposal no: IA/ML/MIN/161202/2020 dated 30.06.2020 and has submitted the Form-I and Pre-Feasibility Report.

3. PP has submitted that SCML had applied to State Govt. for Prospecting License (PL) over an area of 490 hectares near Brishyrnot village in East Jaintia Hills Distt., Meghalaya vide application No.SCML/PL/01/2007-08, dated 15.06.07. Finally, the PL over the area of 427 hectares was granted by the Govt. of Meghalaya vide grant letter No. MG.8/2008/33, dated 09.09.2009. The PL deed was executed on 09.10.2009. After detailed prospecting work, the company applied for Mining Lease (ML) over an area of 4.714 hectares on 28.06.2010 within the aforesaid PL area. The Letter of Intent (LOI) for grant of Mining Lease (ML) was issued by State Government Under the provisions of clause (b) of sub-section (2) of section 10A of MMDR, 2015, vide letter No. MG.131/2010/358, dated 03.10.2018

4. PP has submitted that the lease area is non-forest barren land owned by lessee. PP has submitted NOC issued by Department of Forest & Environment, Gov. of Meghalaya vide letter Memo No. 16/50/CMCL/3366-72 dated 19.06.2013. PP has reported that Narpuh Wildlife Sanctuary is approx. 2.8 km in SE direction and ESZ of Narpuh Wildlife Sanctuary is approx. 1.45 km in SE direction.

5. PP has submitted that Mining Plan has been approved over an area of 4.714 ha for proposed production capacity of limestone 2,16,552.79 TPA including shale vide letter no IBM/GHY/MEG/EJNH/LST/MT-90 dated 03.05.2019.

PP has submitted that the Method adopted for mining will be fully mechanized open cast mining with drilling and blasting in two shift operation. The ROM will be transported to the Clinker Plant. The height & width of benches will be kept 6m & 6m respectively to maintain an overall pit slope of 45°. However, the width of working bench will be maintained around 20 m. Lowest level of excavation will be 250 mRL. Reserve estimation has been done previously by digging 4 bore holes. As per present lease area of 4.714 ha the total geological reserves and resources of Limestone including shale are estimated at 8.386 million tons and the Mineable reserves of limestone including Shale are estimated at 1.379 million tons. Life of the mine based on the mineable reserve is about 7 years. However, the life of mine goes up to 39 years based on geological reserves and resources. No overburden (OB)/waste shall be generated during the mine plan period. Small quantity of soil may be generated during mining which will be utilized for plantation and maintenance of roads.

6. PP has submitted that during the first plan period plantation will be carried out in an area of 0.4 ha in a safety zone of 7.50m. Mixed local species will be planted such as Champa, Mahaneem, Jackfruit etc. A total of 600 saplings will be planted in 5 years @1500 trees/ha. Beside this, additional 0.300 ha, also will be planted beyond planned period in the safety zone of 7.50m (A total of 450 saplings will be planted in 3 years).

7. PP has submitted that total water requirement for the mine will be about 15 KLD and shall be sourced from the existing clinker plant. 8 KLD for dust suppression, 5KLD for Green Belt, 2 KLD for drinking, sanitation and other activities. The generated sewage will be sent to septic tank followed by soak pit. No Industrial waste will be generated in the proposed project.

8. PP has submitted that as per MoEFCC O.M. vide F.No. 22-65/2017-IA.III dated 01.05.2018 about 2% of the project cost i.e 14.20 Lakh will be spent towards the welfare of the villagers as a part of Corporate Environmental Responsibility.

9. PP has submitted that No R&R is envisaged due to this project. Entire lease area is privately owned scrubland. There will be no displacement of any person from the lease area. The person having any interest in the land will be suitability and lawfully compensated.

10. 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 total Project capital Cost is INR 7.10 crores. The project is proposed to mine Limestone in an area of 4.714 ha. It will provide direct employment to about 22 workers. Besides there will be indirect employment for transportation, canteen, repair shops, security etc. Most of the employment will be given to locals from the nearby villages. Further, the share of indirect employment like increased purchasing power, private services and retail shops etc. is largely shared by local residents.

12. The project proponent requested for exemption of public consultation keeping in view of Pandemic situation. 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 Magistrate 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 apprised the proposal with the concerned captured through such hearing and written comments, if any received from stake holders.

13. Based on the discussion held and document submitted, the Committee **recommended** the proposal of M/s Star Cement Meghalaya Limitedis for grant of Term of Reference for proposed production capacity of Limestone-216552 Tonnes per annum and 49727 Tonnes of Shale from Brishynot Limestone Deposit-II mine from the mine lease area of 4.714ha, located in village Brishyrnot, District East Jaintia Hills of Meghalaya state. In addition to Standard ToR the Committee also prescribed following additional ToR for this project:

- (i) The authenticated map showing the boundary of Narpuh Wildlife Sanctuary; Eco-sensitive Zone and ML area along with distances by the PCCF/ CWLW.
- (ii) The PP shall plan for embankment of not less than 3 m above the HFL, against the nallah flowing along the northern boundary of the ML area. The details shall be provided in the EIA/EMP report.
- (iii) The PP shall conduct the impact of proposed mining and transport of material on the nallah flowing along the northern boundary of the ML area and the report shall be submitted along with the EIA/EMP report.
- (iv) The PP shall submit an action plan for prevention of landslide and rollouts from the surrounding hillocks, *inter alia*, including plantation, cribs and gabbions, etc.
- (v) The PP shall prepare the site specific conservation plan for the wildlife in consultation with the CWLW.
- (vi) 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.

- (vii) 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.
- (viii) The 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.
- (ix) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- (x) 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.
- (xi) 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.
- (xii) 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.
- (xiii) 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.
- (xiv) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- (xv) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- (xvi) 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.

- (xvii) The PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation.
- (xviii) 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.
- (xix) 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.
- (xx) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- (xxi) 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.
- (xxii) 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.
- (xxiii) 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.
- (xxiv) 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.
- (xxv) District Survey Report as per Ministry's Notification S.O. 3611(E) dated 25.07.2018 needs to be submitted.
- (xxvi) 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.

2.15 Hatgachha Blackstone Mine of M/s West Bengal Mineral Development and Trading Corporation Limited located at Gram Panchayat: Bharkata, Village: Bharka, Block: Mohammad Bazar Hatgachha, District: Birbhum, West Bengal, having mine lease area of 43.94 Ha with production capacity

0.90 Million TPA [Proposal no: IA/WB/MIN/66881/2017; File No. J-11015/73/2017- IA-II(M)]- Environment Clearance Regarding.

1. The proposal of M/s West Bengal Mineral Development and Trading Corporation Limited is for production of 0.90 Million TPA of Blackstone from Hatgachha Blackstone Mine (ML area 43.94 Ha) situated at Gram Panchayat: Bharkata, Village: Bharka, Block: Mohammad Bazar Hatgachha, District: Birbhum, West Bengal. The mine lease area falls in the Survey of India Topo-Sheet No. G45V12 (72/ P/12). The latitudes and longitudes of the Mine lease fall between Latitude: - N 24° 06' 54.59" to N 24° 7' 16.82" and Longitude: - E 87° 35' 20.33" to E 87° 35' 52.31".

2. PP has submitted that the project is considered to be of 'A' category even though the ML area is less than 100ha. (S.O. 3977(E), dated on 14th Aug, 2018) as the interstate boundary between West Bengal & Jharkhand is within 5 km of the project site.

3. The PP applied online vide proposal no. IA/WB/MIN/66881/2017 for grant of ToR and submitted the Form I, Pre-feasibility Report. The project proposal was considered during the 21st EAC meeting held on 29th – 30th August 2017. The Committee recommended the proposal and prescribed the Standard ToR with additional conditions. The Terms of Reference was issued by MoEF&CC vide letter No. IA-J-11015/73/2017-IA.II (M) dated 14th September, 2017 for carrying out EIA Studies & prepares EMP report for obtaining Environmental Clearance.

PP after conducting public hearing has now applied for Environment Clearance on PARIVESH vide **Proposal No. IA/WB/MIN/66881/2017 on 25.06.2020** and submitted the final EIA/EMP report after incorporating Public Hearing proceedings.

4. PP has submitted that Hatgacha Black Stone mining lease over 43.94 ha. (108.53 acres) in village Hatgacha, P.S. Mohammad Bazar, Dist. Birbhum of West Bengal was granted by the Govt. of West Bengal in favour of West Bengal Mineral Development and Trading Corporation Ltd., for a period 20 years vide letter no. 169-CI/O/MM-4/010/Mines, dated 25.02.2011. The lease was to be executed within a period of 6 months from the issue date of the order. But as the process was delayed due to want of statutory clearances, WBMDTCL has sought for extension of the validity period. The Grant Order (vide letter no. 718 - CI/O/MM/41/10/Mines; dt. 30th November, 2018) was reprocessed by the Department of Large Industries and Enterprise (erstwhile Commerce and Industries Department, Government of West Bengal) with a validity period extended till one year from the date of Issue of the Revised Grant Order i.e. 30th November, 2018. Another re-validation grant order vide no: 169-CI/O/MM/41/10/MINES dated on 15th June, 2020 was issued by Department of Industry Commerce & Enterprises, Govt. of West Bengal.

5. PP has submitted that the mining plan was approved by the Office of the Chief Mining Officer, Asansol, Dist. Burdwan, West Bengal vide Memo. no. 874/CMO/XVI/91 (178)/142 (Old), dated 4th December, 2018.

6. The Project proponent submitted that Hatgacha Black stone mine shall adopt open cast, semi-mechanized method of mining with drilling & blasting on a single shift basis with the deployment of 2.5m³ excavator, 35t capacity tippers a crushing plant and 60 employees. ROM produced from the mine will fed into 200 TPH crushing unit for sizing and sized black stone will be loaded manually for dispatch to the consumers. The mine shall be developed in first five year upto a depth of 30 m including 6m of soil and alluvium. Since the deposit is almost flat dipping as per evidence of nearby mines; quarry /haul road of 6m width & 6m height shall be made from the ground level to the bottom of the pit. Individual benches will be developed in a nearly vertical manner, while the overall quarry slope angle will be <30° with the horizontal. The material will be extracted by deep hole blasting. The hole depth would be 6.6m as the bench height will be

6m. The blast hole inclination shall be 60° towards the bench face. The height & width of mining benches shall be 6m X 6m. 5% of the Blackstone mineable tonnage is estimated as rejects considering the weathering of the material. Two crushing plants of 200 TPH capacity each are proposed to be set up within the mining lease area. The equipments like Hydraulic Excavators, Dumpers, Rock Breaker, drilling machine, Bull Dozer, Front End Loader etc shall be used in this semi mechanized mines.

The Mineable reserves of black stone have been estimated to be 18.19 million MT. With the ensuing production target of 0.9 million MT /annum black stone (ROM), the life of the mine would be 20 years. During the 5year mining period 0.69 million cum of OB will be dumped over 4.76 ha upto a maximum height of 20m. During the 20 years of mining, 976500 cum of OB will be generated which will be stored. While crushing the stone material to produce aggregates @ 25% wastes will be generated as Stone Dust which is about 895000 cum in the 5years of mining, whereas by the end of the lease period 4.31 million cum Crusher waste shall be generated.

7. PP submitted that the mining activities shall be carried out upto a depth of 50m i.e. 21m AMSL from surface level by the end of the lease period, whereas the ground water table of the region varies from 3m to 6m with maximum at 36m AMSL (during post monsoon period) and thus, it is expected to have some impact due to dewatering. This intersection of ground water table shall occur in the 13th year of mining and the pumped out water shall be drained into nearby perennial nala and supply for irrigation to nearby agriculture fields. A hydro geological study in this regard is conducted and report is submitted by PP. PP has stated that as observed in the nearby mines upto a depth of 40 meter below ground level, ground water accumulation is negligible. Total Water requirement in the Hatgacha Black Stone mining is estimated to be 15 m³ /day. For dust suppression peak water demand shall be 10 m³ /day, plantation will consume 3 m³ /day whereas drinking water need along with cleaning & washing at work place is 2 m³ /day. Water requirement for dust suppression and plantation shall be fulfilled by water of the settling pond and drinking water from ground water source, for which application vide letter No. MDTC/PH/08 dated 17.06.2020 has been submitted for obtaining necessary permission from District Ground Water Resources Development Authority, Birbhum district, West Bengal. No wastewater is likely to be generated from the mines other than the surface run off during rain.

8. PP has submitted plantation within the ML area will take place as per the following plan. In total 25.5 ha (2.94 ha. of safety zone, 0.44 ha. of topsoil storage area, 8.5 ha. of backfilled area, 0.3 ha. around crusher, 0.3 ha. around office and infrastructure area, 4 ha. around dump & in dump slope and 9.02 ha. untouched area), out of 43.94 ha. of the lease area will be covered under plantation by the end of the lease period by planting 40800 saplings. A Time bound Progressive Greenbelt Development Plan has been prepared for a period for 20 years. The West Bengal Mineral Development and Trading Corporation Ltd. shall purchase healthy seedlings of desired numbers from the nearby nursery during the month of June. The company also wishes to give seedlings free of cost to the interested local peoples for plantation in their waste lands. Post plantation care includes replacement of casualties, weeding, soil working, manuring, watering, protection from grazing and fire. These post plantation care will continue for at least 3 years after plantation. This scheme and selection of plant species are mainly based on the utility to local people, local soil & climatic conditions.

9. PP submitted that the Mining lease (ML) area of 43.94 Ha comprises of 16.89 ha agricultural land, 13.74 ha waste land, 1.09 ha road, 0.78 ha water bodies, 0.61 Ha lateritic up land, 0.08 under habitation and 10.75 Ha other lands. No Forest land is involved in Hatgacha Black Stone Mine and has been certified by DFO, Birbhum District vide letter No. 1657/8M dated 29.08.2019. PP has submitted that there is no National Parks /Sanctuaries, Biosphere Reserves,

Wildlife Corridors, Tiger Reserves within 10 Km radius of the mining lease area in West Bengal. A map to this effect has been authenticated by the DFO, Birbhum vide No. 2731/8M dated 06.12.2018.

10. PP submitted that a detailed biological study for the study area covering both core & buffer zone was carried out including field survey, local people interaction as well as comparison of information available from various govt. agencies. There is no endangered, endemic and RET Species of flora and fauna observed during the study. List of flora and fauna has been authenticated by the DFO, Birbhum vide No. 2731/8M dated 06.12.2018.

11. PP has submitted a district survey report of Birbhum district prepared by RSP Green Development & Laboratory Pvt. Ltd. Howrah, West Bengal (December 2010).

12. PP has submitted that One season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season, covering the months of October '17 to December '17. The wind direction is predominantly from NW to SE during the monitoring period i.e. post monsoon period. The Ambient Air Quality monitored in the study area was found to be well within the limits of NAAQ standards prescribed for Industrial, Residential, Rural and Other Areas. The ambient noise levels were recorded at the study area revealed a maximum of 53.3 dB(A) at Brkata village and a minimum of 40.2 dB(A) at Lease area during daytime. A maximum of 41.8 dB(A) at Barkata village and a minimum of 35.2 dB(A) within the lease area were recorded during nighttime. The soil samples of nearby agricultural field are having good water holding capacity, organic matter and phosphorus percentage to support plant growth. The surface water quality as monitored during the study period reveals that, average river water quality at the locations conforms to the standard quality. It can also be seen from the data that the ground water quality conforms to drinking water quality standard. The ML area is not habited with the wild animals. The field study has recorded only the presence of common birds, amphibians, insects and few mammals. Most of the fauna belongs to Schedule II, III and IV categories as per the schedule of Indian Wild Life Protection Act, 1972 and later amended in 1991.

13. The Project Proponent reported that Public Hearing was conducted on 20th July, 2018 at 12:00 P.M. at Turku Hansda Community Hall beside the office of the BL & LRO, At- Md. Bazar, Dist - Birbhum, West Bengal under the chairmanship of the Shri Diptendu Bera, WBCS (Exe.), Additional District Magistrate (ZP), Birbhum. The advertisement for public hearing was published on 12.06.2018 in newspapers – “EiSamay” and “The Times of India”. PP has submitted that, during the public hearing, the major issues raised include Drinking Water Facilities, Extensive Plantation, Skill Development. PP has further submitted an action plan along-with budget to implement the demands. PP has submitted that as per the guidelines no. (iii) of the CER notification, M/s West Bengal Mineral Development & Trading Corporation Limited is committed to spend CER amount of Rs 29 lakhs in fulfilling the demands raised during the public hearing.

14. PP has submitted that the Corporate Environment Responsibility (CER) Programme as the MoEF & CC office memorandum no. F.No. 22-65/2017-IA.III, dated 1st May, 2018 attracts 2% of the project cost, which amount to Rs 28.64 lakhs or about 29 lakhs. As per the guidelines no. (iii) of the above notification, M/s West Bengal Mineral Development & Trading Corporation Limited is committed to spend this Rs 29 lakhs in fulfilling the demands raised during the public hearing. This will include 1) Drinking Water Facilities – Rs. 17.5 Lakhs to be spent in 5 years; 2) Extensive Plantation - Rs. 5.5 Lakhs to be spent in 5 years and 3) Skill Development - Rs. 6 Lakhs to be spent in 3 years.

15. PP reported that due to the involvement of 50.00 ha. of single cropping agriculture land, a need based survey was undertaken for the project affected

families. WBMDTCL is committed to provide the land compensation of Rs 26,000 /acre with annual escalation of Rs 2000 /annum and also provide one employment in the project for every 2 acres of land to be involved in the project. PPP has submitted the detail of the survey. This type of arrangement is already practiced in other black stone projects of the region. As per the survey there are 6 persons who will get job as they will lose 2 acres of land and 11 numbers of families with hutments at the south west corner of the lease are encountered.

16. The Project Proponent submitted that the updated capital cost and recurring cost (per annum) for the environmental management facilities of the mining project works out to Rs. 160 and Rs. 35 lakhs respectively. This include 1) Air Pollution Control – Rs. 45 Lakhs (Capital) and Rs. 10 Lakhs (Recurring), 2) Water Pollution Control– Rs. 21 Lakhs (Capital) and Rs. 6 Lakhs (Recurring), 3) Noise Pollution Control- Rs. 6 Lakhs (Capital) and Rs. 2 Lakhs (Recurring),4) Environment Monitoring and Management -Rs. 8 Lakhs (Capital) and Rs. 6 Lakhs (Recurring),5) Occupational Health- Rs. 14 Lakhs (Capital) and Rs. 8 Lakhs (Recurring) and 6) Green Belt Development and Maintenance - Rs. 66 Lakhs (Capital) and Rs. 3 Lakhs (Recurring).

17. PP has submitted that to avoid any adverse effect on the health of workers due to dust, noise and vibration etc. extensive measures shall be adapted in relation to safety aspect. Periodical medical examination of all workers by medical specialists shall be conducted. The most significant occupational health impacts are Noise Induced Hearing Loss (NIHL) and Occupational Lung Disease (OLD) due to inhalation of dust. As per Mines Rules, 1955, medical examination of employees at the initial stage and periodically, shall be done by a team of qualified medical officers provided by the project proponent. All safety measures like provision of rest shelters for mine workers with amenities like drinking water, training on use of safety appliances, distribution of safety awards, posters and slogans related to safety, etc shall be undertaken. Regular maintenance and testing of all equipments shall be carried out as per manufacturer's guidelines to prevent any accident. Regular medical check-up camps shall also be arranged for detection of occupational diseases and other disease in the nearby rural population. PP has prepared and submitted a detailed Occupational Health & Safety Plan.

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

19. **Affidavit and Undertaking:**

- (a) PP ha submitted an undertaking by way of affidavit dated 08.08.2019 as required as per Ministry's O.M No 350/2017 -IA. II(M) dated 30.05.2018.
- (b) PP has submitted a declaration in EIA Report dated 18.06.2020 that they undertake that the Rapid EIA/EMP report for the said proposal has been prepared by Centre for Envotech and Management Consultancy Pvt. Ltd., Bhubaneswar and is as per the TOR prescribed by MoEF&CC on 14.09.2017 vide letter no. J-11015/73/2017-IA-II(M). The contents (information and data) of the report about their mines are correct and true to the best of their knowledge and belief.
- (c) The Consultant has also given a declaration stating that they declare that the Rapid EIA/EMP Report for the said proposal has been prepared in compliance with the TOR prescribed by MoEF&CC on 14.09.2017 vide letter no. J-11015/73/2017-IA-II(M). The samples taken were analysed in MoEF&CC accredited laboratory and the data given in the report are correct with the best of equipments, testing process & knowledge.
- (d) Further, PP has given undertaking in Form-2 that hereby give 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. 14.32 Crores and the employment potential of the mine is 60 persons (managerial, technical + skilled+ semiskilled+ unskilled).

21. After detailed deliberations, based on the EIA/EMP submitted and presentation made by PP, the committee **recommended** for grant of prior environmental clearance for the proposal of M/s West Bengal Mineral Development and Trading Corporation Limited is for production of 0.90 Million TPA of Blackstone from Hatgachha Blackstone Mine (ML area 43.94 Ha) situated at Gram Panchayat: Bharkata, Village: Bharka, Block: Mohammad Bazar Hatgachha, District: Birbhum, West Bengal subject to following specific conditions in addition to the standard conditions applicable to non-coal mining proposals.

- i. The PP shall provide adequate safety barrier against the villages, inter alia, including, control blasting with necessary permission from the Director General of Mines Safety within 300 m from the village / Habitation boundary, mining with ripper dozer or other mechanical means by avoiding the blasting within 100 m from the village / Habitation boundary. Thick plantation with native and broad leaved species shall be developed, within one year from the commencement of mining operations, in the safety barrier left against the Habitations.
- ii. The ground induced blasting vibrations shall be monitored regularly for every blast performed and the values of “peak particle velocity” and “Air Over Pressure” shall be maintained below the permissible values prescribed by the DGMS, from time to time.
- iii. The excavation (RoM) shall not be exceeded 0.9 MTPA Black stone.
- iv. The PP shall explore the possibility of the reclamation of the mined out voids available in the surrounding area (adjacent to the proposed quarry) with the waste/rejects produced from the quarrying instead of dumping in the fresh land. The report on implementation shall be submitted to Regional Office of the Ministry regularly along with the compliance report
- v. The PP shall utilize the CER funds for the biological reclamation of the mined out voids available in the surrounding area (adjacent to the proposed quarry) and plantation in the surrounding areas for improvement in the greenery. The report on implementation shall be submitted to Regional Office of the Ministry regularly along with the compliance report.
- vi. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, inter alia, including plantation all along the boundary (Safety zone) of the mining lease shall be completed within 2 years of commencement of mining operations, with a saplings of native and broad leaved species of not less than 12 feet and shall maintain the record of the same, gap plantation and grassing as per the directions of the Hon'ble Supreme Court.
- vii. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.
- viii. 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.

2.16 Kakra-Panna Limestone Mine of M/s Jaykaycem Central Limited located at Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna of State Madhya Pradesh (ML area 1594.34 Ha to produce - Normative Capacity: 4.0 MTPA, Maximum Achievable Capacity: 4.08 MTPA) - [File No.: J-11015/190/2016-IA.II(M); Proposal No.: IA/MP/MIN/130137/2016; Consultant: Creative Enviro Services]- EC Regarding

1. The proposal of M/s Jaykaycem Central Limited is for Mining of Limestone to produce - Normative Capacity: 4.0 MTPA, Maximum Achievable Capacity: 4.08 MTPA) from Kakra-Panna Limestone Mine located at Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna of State Madhya Pradesh (ML area —1594.34 Ha). The applied area forms a part of Survey of India topo-sheet no. 45E/15 (G43B15) (mine area) and 45/15 (G43B15), 45E/16, 451/3 (G43C3), 451/4 (G43C4) (study area). The proposed site and study area is covered in parts of Survey of India Toposheet No. 54 P/15 & 63 D/3 within latitude 24° 19' 2.99"N - 24° 20' 2.02"N and Longitude 79° 57' 30.02"E - 79° 58' 42.25"E, whereas mining lease area is covered in parts of Survey of India Toposheet No. 54 P/15 & 63 D/3 bordered by latitudes from: 24°19' 46.6" to 24°22' 15.3" N and longitude from 79 0 56' 15.5" to 79 0 59' 38.2" 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) as the Mining lease area is more than 100 Ha.
3. PP applied online for grant of ToR (Terms of References) vide Proposal No. IA/MP/MIN/580538/2016 and submitted the information in the prescribed format in Form 1 along-with Pre-Feasibility Report. The proposal was initially considered in EAC Meeting held during September 19th-20th, 2016, April 27-28 2017 and July 24th-25th, 2017 wherein the Committee deferred the proposal for want of site visit by a sub-committee. Thereafter the committee visited the site during 17.04.2018 & 18.04.2018. The Committee submitted its report to the Ministry and the proposal was reconsidered in the EAC meeting held during May 14th – 15th, 2018. The EAC, after detailed deliberations recommended the proposal for prescribing Term of Reference (ToR), Ministry issued the TOR vide No. J-11015/190/2016-IA.II (M) dated 06.07.2018. PP submitted the EIA/EMP online vide proposal no IA/MP/MIN/130137/2016 on 10 Dec 2019 the proposal was considered in the EAC in its meeting held on May 28, 2020 wherein the Committee after deliberation and observations made above, recommended the proposal to return in present form and advised to make the application by addressing the ToRs prescribed inter alia including the observations made by the committee and the stage wise mine development plans at 5-year interval, clearly showing rivers, safety distances, villages, roads, mine lease, water bodies, embankments, OB dumps, plantations etc. showing critical distances for drawing the appropriate mitigation measures. Further PP resubmitted the proposal online vide proposal no IA/MP/MIN/58058/2016 on 04th July, 2020 along with the EIA/EMP report, the proposal considered in the EAC in its meeting held on 22-24 July, 2020.
4. PP reported that the total mine lease area is 1594.34 ha out of which 1518.586 ha is private agriculture land and 75.754 ha Government Land. PP reported that the Government of Madhya Pradesh granted a prospecting License over an area of 3513.75 Ha in Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna, M.P. vide order no. F2-41/2010/12/1, Bhopal dated 15.03.2010 for a period of two years i.e. from 14.06.2010 to 13.06.2012. After subsequent scrutiny, the State Government under Rule 27(h) of MCR 1960 recommended the grant of ML over an area of

1594.34 hectares. As per the exemption under Section 6 (1) (b) of MMDR, 1957 by the Central Govt., the State Government, issued the letter on dated 17.03.2016 and 03.05.2016 for completing all the formalities including obtaining EC and execute the deed for a period of 50 years over an area of 1594.34 ha.

5. PP submitted that Mining plan and Progressive Mine Closure Plan for an area of 1594.31ha has been approved by the Regional Controller of Mines, Indian Bureau of Mines, Jabalpur, vide letter no. MP/Panna/Limestone/MPLN/G-16/14-15/4140 dated 03.08.2015 as per the approved mine plan the mining shall be carried out by fully mechanized opencast method, utilizing Heavy Moving Earth Machinery (HEMM i.e. hydraulic excavators, rear dump trucks, hydraulic drills, bull dozers, etc.) in conjunction with deep hole and blasting. The quarried raw material will be transported to the crusher location by tippers and dumpers and from there to the cement plant, using belt conveyors. The oversize queried limestone will be crushed using rock breakers before transportation. A limestone crusher having the capacity of 1800TPH, with bag filters and dust suppression arrangement such as water sprinkling will also be installed for sizing of the mined limestone to be taken to the plant through conveyor belt. PP submitted that during the mining operation for the first five-year period total 14,10,052 cum soil/alluvial will be generated and 2,78,516 cum of waste material will be generated. At the conceptual period total 4,98,03200 cumsoil/alluvium and 4,79,99,308 cum of waste rock is estimated to generate. PP also reported that dump shall be developed as to avoid any spillage towards adjacent field. Back filling is proposed on concurrent basis from 3rd year onward. The soil will be used for afforestation purpose. Proper slope and system of benching with retaining wall for the dumps is suggested to prevent spillage of waste to adjacent land. Therefore, total area covered at the conceptual stage will be 528.20 Ha, for which Rs 751.95 Lakhs will be incurred. No Secondary Blasting / Plaster Shooting shall be done.

6. The Proponent submitted that the top soil and the overburden will be temporarily stacked on surface at the designated places inside the mine lease area. Top soil is used for plantation and overburden in backfilling. Backfilling will be started after second year and the generated OB of approximately 4756104m³ will be used for backfilling the eastern part of the proposed five year working area in such a way that part of the area will be restored to original ground and at the end of five-year period, the average depth of backfilled area will be 25-26m. An area of 1280.332 ha will be mined out by the end of the conceptual period and 562.2 ha of area will be back-filled whereas the remaining area admeasuring 752.122 ha will be developed as water body. Water accumulated in the working mine will be treated and used for dust suppression and plantation to the maximum extent. The liquid waste generated from the office toilets will be treated in the prefabricated package sewage treatment plant. PP also submitted that the ultimate working will be done up to RL 279 below the ground water level. PP reported that the Hydrogeological study has been carried out as per it the ground water table is encountered at about 11-15 m below the surface and during the mining operations the ground water table will be intersected. PP submitted that the application for CGWA clearance has been applied and the same under process. No overburden and/or sub-grade material shall be stacked outside the Mine lease area.

7. PP has submitted that it is proposed to develop plantation of about 992127 saplings over area of 528.20 ha (@1200 plants/ha) which will include 437.33 ha reclaimed by back filling. In addition to stabilize the slope of abandoned benches, about 90.87 ha will also be afforested. Plantation will be done along the 7.5mt barrier zone by considering 80% rate of survival. Trees like Karanj, Mango, Neem and other local varieties will be planted in consultation with forest department. Vegetation shall be removed only from the specific site on which extraction of mineral is to be taken up. Dump shall be so developed as to avoid any spillage towards adjacent field. Back filling is proposed on concurrent basis from 3rd year onward. The soil will be used for afforestation purpose. Proper slope and system

of benching with retaining wall for the dumps is suggested to prevent spillage of waste to adjacent land. Therefore, total area covered at the conceptual stage will be 528.20 Ha, for which Rs 751.95 Lakhs will be incurred.

9. PP submitted that there is no forest land involved in the mining lease area. Major portion of the land belongs to individual private land owners sustaining low yield agricultural pattern (1518.586 ha). Partly the land is waste land (75.754 ha) belonging to the state government. PP has reported that no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/ (existing as well as proposed), is identified within 10km radius. Letter for the same has been obtained from DFO, South Forest Division, Panna vide its letter No. Ma.Chi./2016/4717 dated 10.08.2016 which states that there is no national park/ sanctuary is present within 10 km radius of the site. Also, there is no forest present in 250 m radius. **However, Panna Biosphere Reserve is present at a distance of 5.50 km.** DFO, South Forest Division, Panna vide its letter No. Ma.Chi./2019/2433 dated 25.05.2019 certified that w.r.t. Mining lease area there is no involvement of Forest Land. The land is also not a part of Tiger and Elephant Corridor. The same has been certified by Addl. PCCF cum Nodal Officer vide letter No. F-1/Parya./R.-3451/10-11/2019/3454 dated 25.10.2019. PP also submitted the letter from the Additional Principal Chief Conservator of Forest, Govt. of MP stating that the Panna Tiger Reserve is located at the distance of 12.94 km and letter No. F-1/ Parya/ R-3451/ 10-11/ 2019/ 3921, dated 17.12.2019 certifying that Mining Lease area is not a part of Tiger Corridor.

10. PP submitted that certain Schedule-I species of fauna in Amanganj Range are reported as Mouse Deer, Black Buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat & Indian Pangolin. PP has reported that the wild life conservation plan with cost implication has been prepared has been approved vide Letter No. V.Pra/Ma.Chi./8848 dated 13.12.2019. The cost of conservation is earmarked to be Rs. 289.9 lakhs and period of implementation will be 10 years.

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

12. PP has submitted that one season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected for one Season (March, 17 to May, 17). Baseline data in the study area was collected by conducting field study/primary sampling during the study period with respect to the different environmental attributes. The air qualities of different locations were compared with the respective NAAQS. It has been observed that the Exceedence Factor for PM_{2.5}, SO₂ and NO₂ for mostly location is less than 0.5 which indicates the overall ambient air quality of study area is low polluted category. However, PM₁₀ at all locations falling into the third category are meeting the standards as of now but likely to exceed the standards in future if pollution continues to increase and is not controlled. However, the location in Low pollution category have a rather clean air quality and such areas are to be maintained at low pollution level by way of adopting preventive and control measures of air pollution. Dust fall was measured using dust fall jars. The Dust fall jar was installed at one AAQ locations and monitoring was carried out for one month during AAQ monitoring period. The Dust fall rates at the sampling stations, D-1, were recorded as 7.7ton/km²/month. These values are closer to the lowest limit for dust fall (51,350 ton/km²/month) reported in the literature. It has found that in the Proposed Cement plant and mining lease area and buffer zone, noise levels are in the range of 37.9 – 52.9 dB(A) at all sixteen stations. Maximum levels of noise have recorded in day hours which are natural as our most of activities have done in day hours. Overall quality of water samples shows that the water sources of the area are not polluted except the surface water samples getting contamination from surface run-off. The coliforms values are exception otherwise all the water samples are indicating its characteristics within limit as given in relevant Indian Standards. Characteristic of waste land and forest land soil is a little deficient in nutrients concentration. Whereas, all three agricultural land soils are moderately

suitable for cultivation of climatic crops and have good fertility. The field survey in the plant area shows that there are no endangered, endemic, rare plant species present within the boundary i.e. core area. However, a species i.e. *Trubulus terrestris* is encountered in the Impact area with low abundance. The study area has been found under heavy biotic pressure and devoid of vegetation due to felling of trees and over grazing by village animals. There are no endangered, endemic and rare species of Fauna, found around 10 km of study area. The domestic animals observed in the study area are mainly mammals. However according to DFO's census report (secondary Data), the Schedule I animals listed in Amanganj Range are the Mouse Deer, Black Buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat & Indian Pangolin, for which conservation plan is prepared. Thus PP has submitted that it is pertinent to state that the project is not likely to cause significant impact on the environment of the area, as adequate preventive measures are proposed which will be adopted to restrict the various pollutants within permissible limits. Green belt development around the area will be taken up extensively which will act as an effective pollution mitigating technique. Community impacts are found beneficial, as the project will generate significant economic benefits for the region. With the effective implementation of the Environment Management Plan (EMP) during the plant activities, the proposed project can proceed without significant negative impact on environment.

13. The Project Proponent reported that Public hearing/consultation for the project was conducted by Madhya Pradesh State Pollution Control Board (MPSPCB) on 17th July 2019 under the Chairmanship of Shri. J.P. Dhurve, Additional Collector Nagaur, at 11:00 AM at Panchayat Bhawan of Village Devra, Tehsil Amanganj, Dist Panna (MP) as per the Environmental Impact Assessment Notification dated 14th September, 2006. The advertisement for public hearing was published in Times of India and Dainik Bhaskar on 14.06.2019. The Committee deliberated on the issues raised during the public hearing and the major issues raised by the local people were related to, employment, compensation to villagers for damage, damage to road & houses near the mining lease, control blasting, top soil utilization, overloading of tippers, use of CSR fund for lying of roads and drinking water facility, skill development program. The Commitment made by PP during the PH includes control blasting, water spraying, transportation by covered trucks, baseline data of crop yield will be taken into consideration before starting mining operations, crop compensation, no agricultural land will be purchased, initial and periodical medical examination of workers, rainwater storage in excavated pits to recharge ground water, green belt development, implementation of pollution control measures, mining within the lease area, employment to 1200 (Direct) and 10000-12000 (indirect) persons, strengthening of village road, over loading of truck will be avoided etc.

14. PP has submitted that as per MoEF&CC's OM no. F. No. 22-65/2017-IA.II dated 01.05.2018, following provision has been proposed towards the CER which is altogether does not include the cost of implementation of EMP, conservation plan, etc. [Project cost: Rs 5586.95 Crore for Cement Plant + Rs 572.58 Crore for Mining Project Total Cost = 6159.53 Crore (CER 0.5% of total cost) = 30.80 Crore]. This amount Rs. 30.80 Crore will be spent over a period of 3 years. The Project Proponent submitted that budgetary provision for Environmental Management Plan (EMP) has been made in two phases—a total of ₹ 233 Crores (Capital) & ₹ 11.92 Crores (recurring/annum). This will include (in 2 phases) as under each category 1) Air Pollution (Capital— Rs. 198 Crores & Recurring/annum – Rs.8.90 Crores in two phases), 2) Waste Water Management (Capital— Rs. 10 Crores & Recurring/annum— Rs. 0.5 Crores in two phase), 3) Solid/Hazardous (Capital—Rs. 2 Crores & Recurring/annum— Rs. 0.5 Crores in two phases), 4) Green Belt development & plantation (Capital—Rs.8.46 Crores & Recurring/annum—Rs. 0.42 Crores in two phases), 5) Wild Life Conservation Plan (Capital— Rs. 3.0 Crores), 6) Rainwater Harvesting Structure (Capital – Rs. 2 Crores & Recurring/annum— Rs. 0.1 Crores in two phases) and 7) Environmental

Monitoring (Capital- Rs. 9.5 Crores & Recurring/annum- Rs. 1.5 Crores in two phases).

15. PP reported that though no displacement is proposed, however provision has been made for the PAF of the area (764 in total) whose land will be purchased. The proposed budget for Land procurement, R&R elements and Skill Development Training cost as per the First, Second and Third Schedule of LARR Act, 2013 is as follows: 1) First Schedule- Rs. 297.87 Lakhs, 2) Second Schedule- Rs. 81.00 Lakhs, 3) Third Schedule- Rs. 89.80 Lakhs and 4) Skill Development- Rs. 2.25 Lakhs. Thus, a total of Rs. 470.92 Lakhs has been budgeted.

16. PP has submitted that Occupation safety and health is very closely related to productivity and good employer-employee relationship. Occupational health of workers may be affected by fugitive emission, dust and noise. Safety of employee during operation and maintenance of equipment and handling of materials are proposed to be taken care as per regulations. To avoid any adverse affects on the health of workers due to dust, heat, and noise sufficient measures shall be provided as per requirement. Provisions of pure and clean drinking water, safety provisions, training of all personnel to deal with accidents are required for an effective environmental management. A Dispensary will be established within the premises and services of the qualified doctor shall be hired on regular basis. It is also to mention here that monitoring at work place will be done regularly. To adhere to safety measures safety helmets, safety boots, safety goggles will be provided to the workers. The Project Proponent submitted that budgetary provision for Occupational Health and Safety has been made in two phases-a total of ₹ 1 Crores (Capital) & ₹ 2.24 Crores (recurring/annum) for the two phases which include PPE (Mask, Gloves, Goggles), Medical Checkup facility, first aid and other welfare activities. A separate budgetary provision for safety aspect w.r.t. Blasting proposal has been planned for an amount of Rs. 5.60 Lakhs/annum as recurring cost.

17. The Consultant in the EIA report has given an undertaking stating that *"I, Umesh C. Mishra, hereby, confirm that the above mentioned experts prepared the EIA of Jaykaycem (Central) Limited. I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement."* Further, PP has given undertaking in Form-2 that hereby give 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.

The PP submitted the NABET Accreditation Certificate of the consultant for the period 21.02.2014 to 14.11.2016, 16.11.2016 to Sep 2017, 18.09.2017 to 22.06.2018, and 22.06.2018 to 12.11.2019. PP also submitted the accreditation certificate of laboratory for the period 14.11.2014 to 13.11.2016 & 14.11.2016 to 13.11.2018, where sample were analyzed. PP reported that there is no court case/ litigation pending against the project.

18. PP submitted that there are following court cases are pending

S.No	Court case details	Status
1	NGT, Bhopal, Original Application No. 03/2020[for the issuance of direction to conduct a fresh public hearing]	The Hon'ble NGT, Bhopal dismissed the Original Application and Interim Application on 08.05.2020
2	One Litigation is pending towards the proposed project and land at Lok AdalatPanna (MP) vide Case	The Mediation Proceeding is pending before the Permanent Lok Adalat, Panna presided by

	No. 12/2019 under Conciliation Proceeding U/s 22 of The Legal Service	the Additional District Judge (Chairperson), Panna and lastly the matter was listed/fixed for Mediation on 28.03.2020. However, the proceedings could not be taken up till date due to COVID-19 pandemic precautions being followed by the Courts/Permanent Lok Adalat
3	High Court of Madhya Pradesh Principal Seat at Jabalpur (Writ petition no. ____/2020(PIL) Chandrabadan Tiwari Vs State of M.P. and others.	The matter is Sub-judice

19. PP submitted that the total water requirement for operation of crusher, suppression of dust, domestic consumption, plantation and green belt development will be 230 KLD (crusher operation 100 KLD, Dust Suppression 70 KLD, Plantation 40 KLD and Domestic Use 20KLD) through initially from ground water and subsequently accumulated mine water & water reservoir proposed at cement plant area and in mining lease area. PP has submitted that they have obtained NOC from CGWA vide letter CGWA/NOC/MIN/ORIG/2020/7359 dated 03.02.2020 for abstracting ground water of 3933.69 m³/day (1435797 m³/year) for a period of two years i.e. from 03.02.2020 to 02.02.2022.

20. The Proponent submitted that total project cost will be Rs. 572.58 Crore and will provide permanent employment to 50 persons and temporary employment to 250 persons during operation.

21. The Project proponent vide his letter No. PN/EMD/MoEF/F01/011 dated 04.07.2020 has submitted additional information in respect of observations made by the committee during 17th EAC Meeting held during 28-29, May and 1st June, 2020, along with Annexures i.e. the stage wise mine development plans at 5-year interval/clearly showing rivers, safety distances with villages, roads, mine lease, water bodies, embankments, OB dumps, plantations, conservation plan for fauna in buffer zone, noise level impact and measures, measures pertaining to blasting vis habitation etc. for your kind and needful consideration. The point-wise submission of the PP is as follows:

Observation: 1. The Original Application 3/2020 in the matter of Brij Kishore Pathak V/s Ministry of Environment, Forest & Climate Change and Others has been filed before National Green Tribunal, Bhopal with a prayer to conduct fresh Public hearing. The project proponent through e-mail dated 20th May, 2020 informed that the NGT vide its order dated 8th May, 2020 dismissed the plea stating that 'Taking note of the consideration the overall facts and circumstances and for the aforesaid reasons we do not find any merit in this original application. Consequently it is dismissed with no order as to cost'.

Reply: 1. PP ha submitted that as they have already informed to the MoEFCC and its Hon'ble Committee Members that recently (on 20.05.2020), they came to know through the Website of NGT, Bhopal that one Mr. Brij Kishore Pathak has filed two Applications bearing No. Original Application No. 03/2020 for the issuance of direction to conduct a fresh public hearing with regard to setting up of a cement plant in Village Kakra, Tehsil Amanganj, District Panna, Madhya Pradesh and Interim Application No. 09 of 2020 for the Condonation of Delay in filing the Original Application against Ministry Of Environment Forest And Climate Change, M.P.

Pollution Control Board & Other in the National Green Tribunal (NGT), Bhopal Bench, M.P. against our proposed cement project at Panna, M.P.

In this matter, on 08.05.2020, the Hon'ble NGT, Bhopal has conducted a hearing by way of Video Conferencing and dismissed the Original Application and Interim Application at the initial stage as the bench did not find any merit in the original application.

Observation: 2. The status of the case no. 12/2019 in Taluk Courts, as mentioned in Form-II needs to be provided.

Reply: 2.

Background of the Case: A Mediation Proceeding has been initiated by Advocate Chandrabadan Tiwari of Village Devra, Tehsil Amanganj, District Panna (MP) before the Permanent Lok Adalat, Panna against (i) the District Collector, Panna, (ii) R.O., MPPCB, Sagar, (iii) The Member Secretary, MPPCB and (iv) Project Proponent.

The Petitioner alleged that Proper procedure was not followed by the Member Secretary and RO of MPPCB while conducting Public Hearing. He alleged that no intimation was given for the Public hearing and coercion was used during the public hearing, as well as there is a differentiation in the land rate.

All the Non-Applicant Parties (Respondents) have filed their replies before the Permanent Lok Adalat and rebutted all allegations with the contention that Prescribed procedure has been followed at all stages for conducting the Public Hearing on 17.07.2019 after giving intimation of Public Hearing. **In this matter, on 08.05.2020, the Hon'ble NGT, Bhopal has conducted a hearing by way of Video Conferencing and dismissed the Original Application and Interim Application at the initial stage as the bench did not find any merit in the original application.** Further, no coercion was used and every participant presented his views freely. It is pertinent to mention that except the Petitioner, no other Participant / Land seller has expressed any kind of grievance. In fact, the Petitioner had also welcomed the Project during his more than 1 hour long speech, at the Public Hearing. In short, all allegations are frivolous and intended for extracting undue benefits from the Project Proponent.

Current Status: The Mediation Proceeding is pending before the Permanent Lok Adalat, Panna presided by the Additional District Judge (Chairperson), Panna and lastly the matter was listed/fixd for Mediation on 28.03.2020. However, the proceedings could not be taken up till date due to COVID-19 pandemic precautions being followed by the Courts/Permanent Lok Adalat. The next date of hearing has not been fixed as yet and will be notified once the Lok Adalat resumes its functioning. PP states that they are confident that this case will be decided in their favor during next hearing as this matter is devoid of any merit.

Observation. As per the PARIVESH, the name of the applicant is Sh. Nikhil Chandra Misra and letter of authorization to Mr. Aditya Pratap Singh was signed by Sh. Anil Kumar Agrawal, covering letter was signed by Mr. Aditya Pratap Singh. Therefore, it was observed that there is no link between applicant and authorized signatory on record.

Reply: 3. PP, wish to bring it to the kind knowledge of the Hon'ble Committee that during the association with the Company, Shri Nikhil Chandra Mishra has applied for Grant of Environmental Clearance on behalf of the Company. However, since he has attained superannuation from the services of the Company, therefore, his assignments has now been looked after by Shri Aditya Pratap Singh, S/o. Shri Raghvendra Singh, Aged about 48 Years, Resident of House No. 253, "Shashikunj", Peptech City, Sohawal Road, District Satna, M.P., General Manager of Company i.e. M/s. Jaykaycem (Central) Limited (hereby called the "Authorized Representative") who has been appointed/empowered by Shri Anil Kumar

Agrawal, Director of the Company vide Board Resolution dated 28.02.2018, to represent the Company before any Government Authority, Departments, Ministries including Ministry Of Environment, Forest And Climate Change, Statutory Authorities, etc. and to act, appear, sign and execute all documents including application, petition before the concerned Authorities. In this regard, following documents are submitted by PP (**Annexure 1**):

- **Letter of clarification issued by Shri Anil Kumar Agrawal, Director of the Company, and**
- **Copy of Board Resolution dated 28.02.2018 in favour of Shri Aditya Pratap Singh duly issued by Shri Prabhat Srivastava, Company Secretary of the Company.**

Observation: 4. Schedule-I Species are existed in the study area however PP did not submit the Authenticated List of Schedule-I species List.

Reply: 4. The authenticated list of Schedule -I Species that exist in the 10km radius study area is contained in the letter No. Vpra/Machi/Mine-78/3415, dated 15.06.2020 from Chief Wild Life Warden, Govt. of MP. The same is submitted by PP as **Annexure-2** to the letter.

Observation: 5. It was mentioned that external dumping in an area of 1.06 ha. However, as per the extant rules, external dumping is not allowed. Committee desired to know how the quantum of external dumping will be managed by re-organizing the internal dumping / dumping within the ML.

Reply: 5. PP has submitted that as per approved mining plan and EIA report, no external dumping of overburden and/or sub-grade material is proposed outside the mining lease area. In initial two years of operation, temporary dumps of overburden will be made in the western part of mining lease, which shall be away from habitation. Backfilling of mining pit will start from 3rd Year onwards, after reaching to ultimate depth of pit and thereafter concurrent backfilling of overburden shall be done in the working pit throughout the life of the mine. The sub-grade material shall be stacked in the non-mineralized area of the northern part of the mining lease.

Observation: 6. As per the EMP at page Nos. 2.47 and 2.56, the blasting is done by plaster shooting. However as per the PPT, the controlled blasting will be done. Whereas in the brief and PPT it was mentioned that controlled blasting and the use of rock breaker for primary breaking of boulders in quarries near village settlements will be adopted and the materials will be loaded and sent to Crusher by dumpers and excavator combination. The committee observed that there are variations in the data between the EIA/EMP; Form-2; and Brief submitted / PPT before the committee.

Reply: 6. Oversized boulders resulting from blasting operation will be segregated near the loading faces, during loading of blasted limestone. These shall be further broken down by Hydraulic Rock breaker machines. No Secondary Blasting / Plaster Shooting shall be done.

The deposit in close proximity to the villages and where the blasting is not feasible will be extracted by deploying Primary Breakers.

Necessary corrections have been done in Page nos. 2.47 & 2.56 of EIA / EMP report.

Observation: 7. No time bound action plan for issues raised during the public hearing along with budget provision and activities of CER related to the issues raised during the PH

Reply: 7. Time bound action plan for issues raised during Public Hearing (PH) Issues & Need Based Assessment (NBA) recommendations in SIA Report Public Hearing with financial outlay of Rs. 3,880/- Lakhs for 3 years is given as below:

S. No.	Issues Raised in Public hearing	Activities	3 Year Plan for CER (in Rs. Lakhs)				%
			Ist	IInd	III rd	Total	
1.	Health - raised by 4 people during Public Hearing	Health (Infrastructure for Primary Health Center, Mobile Health Clinic, Veterinary Hospitals/ Dispensaries)	91	154	221	465	12.0
2.	MoEFCC guideline	Actions for COVID-19 (Supply of Hospital beds, Ventilator, Sanitation equipment, PPE Kits, Body Temperature Scanner, etc.)	350			350	9.0
3.	Employment Opportunities - Raised by 36 people during Public hearing	Education (Construction/ Extension/ additional facilities e.g. Laboratory, Library, Computer class, Toilets, Drinking Water Facilities etc. for village schools)	76	128	184	388	10.0
4.	Drinking water - Raised by 2 people during Public Hearing	Drinking Water Facilities (Hand Pumps, Wells, Tap Water, Water Storage Tanks, Deepening & Cleaning of Ponds, Roof Top Rain Water Harvesting Structure etc.)	83	141	202	427	11.0
5.	NBA recommendations	Sanitation (Construct Community Toilets, Construct Drainage System, Solid Waste Management etc.)	83	141	202	427	11.0
6.	NBA recommendations	Activity Centre for SHGs. SHGs planned for tailoring, production of daily need items, etc. Same facility shall be used for Skill Development Training for women as well. eg. Beautician course, handicraft etc.	53	90	129	272	7.0

7.	Area / Infrastructure Development - raised by 11 people during Public Hearing	Infrastructure (Concrete Roads, Electrification including Solar Power, Panchayat Bhawan, Community Centers, etc.)	136	231	331	698	18.0
8.	Green belt development & Agricultural issues - raised by 15 nos. people during Public Hearing	Greenery Development Nearby Area - Free distribution of Saplings or seedlings for fruit or non-fruit bearing trees. Community plantation drive in surrounding villages. Expert guidance to local farmers for adoption of improved agriculture practices to increase of yield of crops & Fodders, Cattle Farming etc.	53	90	129	272	7.0
9.	NBA recommendations	Others Local Social Needs	112	193	276	581	15.0
Grant Total			1037	1169	1674	3880	100.0

Observation: 8. Authenticated map showing the distance from Panna Tiger reserve and is the ML area falling in Tiger corridor is not available.

Reply: 8. The copy of authenticated Map with Covering Letter, Ref. No. F-1/Parya/ R-3451/ 10-11/ 2019/ 1833, dated 15.06.2020 issued by the Additional Principal Chief Conservator of Forest, Govt. of MP, showing distance of 12.94 km from Panna Tiger Reserve to Mining Lease Area is attached herewith as Annexure-3 (a). Further, the letter No. F-1/ Parya/ R-3451/ 10-11/ 2019/ 3921, dated 17.12.2019 certifying that Mining Lease area is not a part of Tiger Corridor is also attached herewith as Annexure - 3 (b) to the letter.

Observation: 9. The noise impacts on the villages, village populations, blasting methodology, modeling studies report and plaster shooting

Reply: 9.

A. Impact of Noise on villages / Village Population:

Noise generating sources in mining operation are excavation, transportation, loading, unloading, drilling, blasting and crushing. With increasing the distance from the source, noise level decreases due to wave divergence. Additional decrease also occurs due to atmospheric effects and interaction with objects in the transmission paths. For hemispherical sound wave propagation through homogeneous medium, noise levels at various distances can be predicted using a model based on the following principle:

$Lp2 = Lp1 - 20 \text{ Log } (r2/r1)$, where $Lp1$ and $Lp2$ are the sound levels at points located at distance $r1$ and $r2$ from the source.

Combined effect of all the sources (A, B, C... etc.) is determined at various locations by the following equation:

$10 \text{ Log } (10^{lp_a/10} + 10^{lp_b/10} + 10^{lp_c/10})$, where lp_a , lp_b and lp_c are noise pressure levels at a point due to different sources.

Based on the above principle, Noise Model has been developed where noise levels are predicted at different distances from the source for simple flat terrain. Attenuation factors are not applied hence the modeled results are overestimate.

S. No.	Activity	Noise level at 5Mtr in dB(A)	Noise level at 50Mtr in dB(A)	Villages in Lease Area & population
1.	Blasting	Blasting will be instantaneous for less than 5 second. Maximum noise level at 300 meter will be 115 dB(A)		1.Kakra-635 2.Judi/Pagra-296 3.Deora-1012
2.	Drilling, excavation, loading, unloading and transportation and crushing	88.5	68.5	
3.	Noise Mitigation Measures	<ul style="list-style-type: none"> - Above Noise levels are calculated without green belt attenuation - Dense 50-meter-wide green belt will be developed along the village boundary to attenuate the noise. - Controlled blasting technology will be adopted using NONEL Initiation system to minimize the noise, vibration and fly rock. - Drilling will be done by sharp drill bits and water injection system with drilling machines to prevent dust from getting air borne and to reduce noise generation. - Optimizing the blasting parameters to control & prevent the dust from getting air borne and to control the fly rock. - Use of rock breaker in place of secondary blasting to break over size boulders to reduce generation of fly rocks and ground vibration. - The Primary breakers will be deployed to extract the mineral near the villages where blasting is not feasible. - Proper maintenance of HEMM and Crusher, maintaining the haul roads with water sprinkling & compaction and water spray in crusher will be done on regular basis for better noise, vibration and dust emission control. - As per the article published by Mr. PAL, A.K. & KUMAR, V & SAXENA, NIRAKAR (2000), Noise Attenuation by Green Belt, Journal of Sound and Vibration-Sound VIB, Year (2000), Month (6), A 50-meter depth green belt attenuate Noise level by 18 to 21 dB(A) with normal thickness. 		

4.	Conclusion	- Based on the above predictions and implementation of noise mitigation measures including noise attenuation by 50 meters wide dense green belt all along the village boundary, it is concluded that the ambient noise level at the villages existing within the lease area will be well within the norms of 55 dB(A) in day time. No mining activities will be carried out during night time, hence no adverse impacts are predicted.
----	------------	--

Blasting Methodology:

1. **Controlled blasting will be carried out using the latest state of the art technology, using NONEL system of initiation, to keep the ground vibration under the safe permissible limits as specified by Directorate general of Mines Safety (DGMS).** Maximum charge per delay will be kept minimum and hole to hole delay using NONEL system of initiation system, will be used to keep the noise and the ground vibration much below the prescribed limits. The ground vibration levels of every blast will be measured using Seismograph and recorded.
2. Although blasting safety zone is of 300 meters, we shall clearly demarcate by red flags and barricade entry at 500 meters from the blasting site. Any unauthorized entry at the charging site will be totally restricted. Blasting will be carried out during day hours only.
3. Charging of holes and blasting operations will be placed under direct supervision of competent person holding Blaster / 2nd Class Mine Manager Certificate of Competency.
4. **As per legal requirement of DGMS, after opening of the Mine, we will carry out scientific study through the Government agencies, to assess the impact of blasting on the structures in nearby villages. Based on the findings of this study, amount of safe explosive charge per delay shall be established, to contain the vibrations within the permissible limits, as specified by DGMS and shall be strictly complied with.**
5. Oversized boulders will be segregated near the loading faces and rock breaker will be deployed for breaking the boulders. **No secondary blasting or plaster shooting will be done.** The deposit in close proximity to the villages and where the blasting is not feasible will be extracted by deploying Primary Breakers.

B. Modelling studies report:

Permissible Peak Particle Velocity (PPV) at the foundation level of various types of structures in Mining Areas in mm/s as prescribed by DGMS:

Type of structure	Dominant excitation Frequency, Hz		
	<8 Hz	8-25 Hz	>25 Hz
(A) Buildings/structures not belong to the owner			
(i) Domestic houses/ structures (Kuchha brick & cement)	5	10	15
(ii) Industrial Buildings (RCC & Framed structures)	10	20	25
(iii) Objects of historical importance & sensitive structures	2	5	10
(B) Buildings belonging to owner with limited span of life			

(i) Domestic houses/ structures (Kuchha, brick & cement)	10	15	25
(ii) Industrial buildings (RCC & framed structures)	15	25	50

Ground vibration prediction studies

Limiting the maximum charge per delay is considered to be the most practical method for containing the ground vibrations within the permissible limits of 10 mm/sec as prescribed by Directorate General of Mines Safety (DGMS) vide Circular Number DGMS (Tech) Circular 7 of 1997. In order to limit the value of PPV, the maximum charge per delay will be estimated from the predictor equation

$$V = K (D/\sqrt{Q})^{-c}$$

V = Peak Particle Velocity in mm/ sec

D – Distance from blast to monitoring location (m) Q – Maximum Charge per delay (Kg)

K & C are site constants.

Impact of blasting on ground vibrations and mitigation measures are as detailed below:

1. The controlled blasting will be carried out using the latest state of the art technology using NONEL system of initiation to keep the ground vibration under the safe permissible limits as specified by Directorate general of Mines Safety (DGMS).
2. Mine benches shall be oriented in such a way that the village, structure remains near the mine working face.
3. Burden shall not be kept less than 25 times of blast hole diameter / or not less than one third of blast hole depth whichever is greater.
4. Spacing shall always be kept more than the Burden.
5. Stemming column length shall be kept not less than burden to prevent gases from escaping.
6. Controlled blasting will be done to ensure hole to hole delay using NONEL system of initiation.
7. Maximum charge per delay will be kept minimum by hole to hole delay to keep the ground vibration much below than the limits as prescribed by DGMS.
8. No secondary blasting / Plaster shooting shall be done and rock breaker will be deployed to break the oversize boulders and bench toe.
9. Blast induced ground vibrations of each and every blast shall be measured with Seismograph and recorded
10. Mining near the close proximity of villages where the blasting is not possible, primary breakers will be deployed to extract the mineral.
11. Thick green belt shall be developed towards the habitant's area to reduce the noise level.

However, modelling studies related to impact on ground vibration shall be carried out after starting operation of mines by the reputed authorized agencies as it can be done only during operational phase. Based on the findings of the modelling study, we shall suitably modify all controllable parameters for minimizing ground vibrations, as stated above.

Observation 10: Safety measures for the traffic on the roads connecting villages during blasting, village, surrounding water bodies has not been properly addressed.

Reply 10:

A. Safety measures for the traffic on the roads connecting villages during blasting

There are three village roads falling in lease area viz from Saptai village to SH-49 via Devra village; Kakra village to SH- 10 via Kamtana / SH-49 via Devra village; Devra village to SH-49. The area of these roads along with safety zone have already been deducted from our granted lease area.

Followings safety measures shall be adopted for safeguarding these roads during blasting –

- a. Excavation shall be done leaving the safety zone of 50 m. from roads (Kuchha & Tar).**
- b. Whenever Blasting will be done with in blasting danger zone of 300 m, the following precautions shall be taken:**

- 1) Guards will be posted with clearly visible signals such as red flags to restrict the movement during blasting.
- 2) Three sirens shall be blown at an interval of one minute each just prior to blasting. Electric sirens of higher range shall be installed in the mine.
- 3) After completion of 3rd siren, blasting in charge will take confirmation from guards posted at the entry points through wireless or by any other mode of communication to ensure that movement is restricted.
- 4) Thereafter, blasting shall be carried out. Clearance siren shall be blown after blasting and the movement will be resumed again.
- 5) After reaching 50 m safety zone from village roads, the mine area shall be fenced with barbered wire fencing to prevent inadvertent entry into the mines pit.

B. Safety measures for village habitation areas during Blasting.

- i. Mine benches shall be oriented in such a way that the villages, structures remain at the rear of the mine working face.**
- ii. Burden shall be kept not less than 25 times of blast hole diameter / or not less than one third of blast hole depth whichever is greater.**
- iii. Spacing shall always be kept more than the Burden.**
- iv. Stemming column length shall be kept not less than burden to prevent gases from escaping.**
- v. Controlled blasting will be done to ensure hole to hole delay using NONEL system of initiation.**
- vi. Maximum charge per delay will be kept minimum by hole to hole delay to keep the ground vibration much below than the limits as prescribed by DGMS.**
- vii. No secondary blasting / Plaster shooting shall be done and rock breaker will be deployed to break the oversize boulders and bench toe.**
- viii. Blast induced ground vibrations of each and every blast shall be measured with Seismograph and recorded.**
- ix. After opening of the mine, scientific studies shall be carried out by authorized government agency to ascertain the safe amount of explosive charge per delay and all the recommendations shall be strictly complied with.**

- x. **Mining near the close proximity of villages where the blasting is not possible, primary breakers will be deployed to extract the mineral.**
- xi. **Thick green belt shall be developed towards the habitant's area to reduce the noise level.**

c. Safety measures for water bodies during Blasting.

Safeguards for protection of Devra Nallah & Ken River from operation of mine are as under –

- i. **Mine working will be done after leaving the safety distance of about 45 m on either side of this Nallah. Plantation will be done after making bund all along the Nallah over the safety zone of 45 m by planting 2360 nos. of trees.**
- ii. Any excess water from mine pit will be desilted into settling pit/ rainwater harvesting pond, before leaving it to surface water body i.e. Devra Nallah. Mine water will not be directly drained into Ken River.
- iii. Mining activity will be restricted up to 250 m distance from the Ken bank.
- iv. Garland drain along with settling pits will be provided around the OB, sub-grade dumps and all along the Haulage roads to control the spillage of silts in to Devra Nallah leading to Ken River.
- v. Thick plantation will also be done on the embankment along the river bank, to control the erosion of river bank towards the lease area.
- vi. The water used in HEMM washing, having traces of oil & grease will be passed through the oil water separator. Treated water will be re-used for dust suppression in the Crusher.

Observation: 11. The stage wise mine development plan, clearly showing rivers, safety distances, villages, roads, mine lease, water bodies, embankments, OB dumps, plantations etc. showing critical distances has not available in the EIA/EMP for drawing the appropriate mitigation measures.

Reply: 11. The stage wise mine development plans, clearly showing rivers, safety distances, villages, roads, mine lease, water bodies, embankments, OB dumps, plantations etc., with critical distances are exhibited as **Annexure-4 which includes Surface plan, Stage wise 5 year plans & Conceptual plan.**

Observation: 12. Protection measures against the river and Nallah including the design of the embankment and approved design has not been given.

Reply: 12. Precautionary measures to avoid water ingress in the Mine area and its budgetary provisions are as under

- i. **Though the lease is granted up to a distance of 60m from Ken river bank but the actual mining activity will be restricted up to 250 m distance from the bank of Ken River. The flooding in the mine area is not anticipated because the HFL of Ken River is 296 m-297 m whereas the MSL range of Mine area is 308 m to 323 m. We will also construct an embankment of about 3 m height as per approved design along the river bank. Thus, the top of embankment will be approximately 15-16 m higher than HFL of Ken River.**
- ii. As per the extensive drilling data, there are no caverns found in the limestone deposit of this area. Limestone of this area is hard massive strata bound type of deposit.

- iii. We will also construct an embankment of about 3m height as per approved design all along the Devra Nallah to prevent any ingress of Nallah water towards mining pit.
- iv. Thick plantation will be done all along the safety zone of Devra Nallah by planting 2360 nos. trees. Similarly, we will plant 3500 nos. trees in the barrier zone of mine towards Ken River.
- v. **Budgetary provision for construction of embankment all along Devra Nallah and Ken River and plantation on the embankments is around Rs. 4-5 Crores.**
- vi. **The design of embankment on River and Nallah duly approved by WRD, Panna is attached as Annexure-5.**

Observation: 13. Location of Crushers, material balance of crushing plants has not been given.

Reply: 13. Limestone Crushing Plant of 1800 TPH capacity will be located in southern most part of mining lease, just adjacent to the proposed Cement Plant. Location is shown in the stage wise mine development plans. **(Refer Annexure-4)**

Material Balance Sheet of Crushing Plant			
S. No.	Parameter	UOM	Value
1.	Material		Limestone
2.	Maximum Annual quantity of mineral to be raised	MT	4,080,000
3.	Mine working days	Nos.	300
4.	Production per day	MT / Day	13,333
5.	Input Feed to the Crushing Plant	TPH	1,809
6.	Material Passing through Wobbler Feeder	TPH	309
7.	Screen Rejects (0.5 % in average) - For Backfilling	TPH	9
8.	Material Passing through Crusher	TPH	1500
9.	Net Capacity of Crushing Plant	TPH	1,800
10.	Working Hours Per Day	Hours	7.41
11.	Effective Working Hours Per Shift	Hours	5
12.	Number of shifts per day	Nos.	2
13.	Limestone to Clinker conversion factor	-	1.55
14.	Annual Clinker production from total mineral raised	MT	2,640,093
15.	Annual Clinker production from total mineral raised	MTPA	2.64

Observation: 14. Whether the mining is in one shift or two shift, not clear.

Reply: 14. The Mining shifts per day will be two as per below calculation:

Material Balance Sheet of Crushing Plant			
S. No.	Parameter	UOM	Value
1.	Material	--	Limestone
2.	Maximum Annual quantity of mineral to be raised	MT	4,080,000
3.	Mine working days	Nos.	300
4.	Production per day	MT / Day	13,333
5.	Input Feed to the Crushing Plant	TPH	1,809
6.	Material Passing through Wobbler Feeder	TPH	309
7.	Screen/Reject (0.5 % in average) - For Backfilling	TPH	9

8.	Material Passing through Crusher	TPH	1500
9.	Net Capacity of Crushing Plant	TPH	1,800
10.	Working Hours Per Day	Hours	7.41
11.	Effective Working Hours Per Shift	Hours	5
12.	Number of Mining shifts per day	Nos.	2
Therefore, the mine will be operated in 2 shifts. Fixed lighting towers shall be installed all along the working pit for illuminating the mine in dark hours. The illumination standards stipulated in DGMS (Legis.) 03 of 2017 shall be complied with.			

Observation: 15. Wildlife in buffer area, any impacts, safety from the water body, 10km radius maps,

Reply: 15.

A. Wildlife in Buffer Zone:

There is no national park, wild life sanctuary; biosphere reserve within study area. The vegetation of study area is scrub type and that too in patches. Following are the wildlife species present in the buffer area:

S. No.	Common Name /English Name	Scientific Name	Status According to WPA
Mammals			
1.	Common Langur	<i>Prebytia entellus</i>	Sch-II (Part-1)
2.	Rhesus Macaque	<i>Macaca mulatta</i>	Sch-II (Part-1)
3.	Musk – shrew	<i>Sancus musrinus</i>	-
4.	Short nosed fruit bat	<i>Cynopterus sphinx</i>	Sch-V
5.	Indian flying fox	<i>Pteropus giganteus</i>	Sch-IV
6.	Indian Pangolin	<i>Manis crassicaudata</i>	Sch-I
7.	Sloth Bear	<i>Melursus ursinus</i>	Sch-I (Part-I)
8.	Panther or Leopard	<i>Panthera pardus</i>	Sch-I (Part-I)
9.	Jungle cat	<i>Felis chaus</i>	Sch-II (Part-I)
10.	Hyaena	<i>Hyaena hyaena</i>	Sch-III
11.	Common mongoose	<i>Herpestes edwardsii</i>	Sch-II (Part-I)
12.	Jackal	<i>Canis aureus</i>	Sch-II (Part-I)
13.	Indian Fox	<i>Vulpes bengalensis</i>	Sch-II (Part-I)
14.	Indian wild dog	<i>Cuon alpinus</i>	Sch-II (Part-I)
15.	Common five striped squirrel	<i>Funambulus pennanti</i>	Sch-IV
16.	Field Rat	<i>Bandicota bengalensis</i>	Sch-IV
17.	House Rat	<i>Rattus rattus</i>	Sch-IV
18.	Indian porcupine	<i>Hystrix Indica</i>	Sch-IV
19.	Indian hare	<i>Lepus nigricollis</i>	Sch-IV
20.	Wild Pig	<i>Sas scrofa</i>	Sch-IV
21.	Mouse Deer	<i>Tragulus mrimina</i>	Sch-I (Part-I)
22.	Black Buck	<i>Antelope cervicapra</i>	Sch-I (Part-I)
23.	Indian Gazelle	<i>Gazella bennetti</i>	Sch-I (Part-I)
24.	Bluebull	<i>Boselaphus tragocamelus</i>	Sch-III
25.	Sambar	<i>Cervus unicolor</i>	Sch-III
Birds			
26.	Asian Koel	<i>Eudynamis scolopacea</i>	Sch-IV
27.	House Crow	<i>Corvus splendens</i>	Sch-IV
28.	Large Indian parakeet	<i>Psittacula eupatria</i>	Sch-IV
29.	House Sparrow	<i>Passer Domesticus</i>	Sch-IV
30.	Myna	<i>Sturnidae</i>	Sch-IV

B. Impact on Wildlife:

Mining activities may impact the nearby wildlife due to noise and air pollution if proper mitigation measures are not implemented.

B1). Impact on Noise Level

Noise generating sources in mining operation are excavation, transportation, loading, unloading, drilling, blasting and crushing. With increasing the distance from the source, noise level decreases due to wave divergence. Additional decrease also occurs due to atmospheric effects and interaction with objects in the transmission paths. For hemispherical sound wave propagation through homogeneous medium, noise levels at various distances can be predicted using a model based on the following principle:

$Lp2 = Lp1 - 20 \text{ Log } (r2/r1)$, where $Lp1$ and $Lp2$ are the sound levels at points located at distance $r1$ and $r2$ from the source.

Combined effect of all the sources (A, B, C... etc) is determined at various locations by the following equation:

$10 \text{ Log } (10^{lpa/10} + 10^{lpb/10} + 10^{lpc/10})$, where lpa , lpb and lpc are noise pressure levels at a point due to different sources.

Based on the above principle, Noise Model has been developed where noise levels are predicted at different distances from the source for simple flat terrain. Attenuation factors are not applied, hence the modeled results are overestimate.

S. No	Activity	Noise level at 5 M. in dB(A)	Noise level at 50 M. in dB(A)	Noise level at 300 M. in dB(A)	Noise level at 4000 M. in dB(A)	Noise level at 6600 M. in dB(A)	Existence of Forest	
1.	Blasting	Blasting will be instantaneous for less than 5 second. Maximum noise level at 300 meter will be 115 dB(A)						- Pagra PF at 4.0 km in WWS.
2.	Drilling, excavation, loading, unloading and transportation and crushing	88.5	68.5	52.94	No impact	No impact		- Udla PF at 6.6 km in NW.
3.	Attenuation Measures	<ul style="list-style-type: none"> - Above Noise level is calculated without green belt attenuation - Green belt will be developed in 528.20 ha. including 7.5 m. wide green belt along the lease and 50 m. wide green belt along the villages to attenuate the noise - Total 9,75,627 nos. of plants will be planted with local species. - Best available mining techniques including wet drilling, controlled blasting, use of rock breaker in place of secondary blasting, proper maintenance of HEMM and Crusher, maintaining the haul roads with water sprinkling and compaction and water spray in crusher etc. will etc. be adopted for better noise, vibration, fly rock and emission control. 						
4.	Conclusion	<ul style="list-style-type: none"> - Based on the above predictions and implementation of noise control measures including noise attenuation by dense green belt within and all along the lease boundary, it is concluded that there is no adverse impact on existing day time ambient noise level of 						

		<i>nearby forest area. Night time, no mining activities will be carried out, hence no adverse impacts are predicted.</i>
--	--	--

2.) Impact on Ambient Air Quality:

Following are the predictions for ambient air quality of nearby forests in buffer zone:

S. No.	Pollutant	Village Location towards PF	Back Ground Value	Incremental value of Maximum GLC	Total	Norms	Nearest Forest with direction and distance
1.	PM10 □g/m ³	Kamtana, 1.7km in N	51.30	0.05	51.35	100	- Pagra PF at 4.0 km in WWS. - Udla PF at 6.6 km in NW.
		Udla, 7.0km in NW	44.30	0.03	44.33		
2.	PM2.5 □g/m ³	Kamtana, 1.7km in N	26.80	0.005	26.81	60	
		Udla, 7.0km in NW	21.30	0.003	21.30		
3.	SO ₂ □g/m ³	Kamtana, 1.7km in N	11.90	0.30	12.20	80	
		Udla, 7.0km in NW	11.20	0.10	11.30		
4.	NO _x □g/m ³	Kamtana, 1.7km in N	22.80	5.00	27.80	80	
		Udla, 7.0km in NW	18.70	0.30	19.00		

Conclusion: *Based on above predictions, it is concluded that there will be no adverse impact on existing ambient air quality due to the Proposed Project and the air quality of nearby forest area will be well within the prescribed norms.*

B3). Wildlife Conservation Plan

As per the information obtained from the Forest Department, Schedule-1 species reported in Amanganj Range are the Black Buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat & Indian Pangolin.

In order to protect and improve the faunal population, a site specific Wildlife conservation plan has been prepared with financial layout of Rs. 2.89 Crores to carry out the mitigation measures approved by the Chief Wildlife Warden vide letter No. Vpra/Machi/Mine-78/8847, dated 13.12.2019. Copy of approved Wild Life Conservation Plan is given in Annexure-6 (a).

c. Safety of wildlife from water body:

- *Higher benches of the excavated pits will be terraced to make the slope gentler and plantation will be done for stabilization.*
- *Peripheral fencing shall be done along the excavated area.*
- *Existing Nallah will not be disturbed.*
- *No waste water will be discharge.*

D. 10km radius maps

- 10km radius map showing the both protected forests in buffer zone given in **Annexure-6(b)**.

Observation 16: SC direction of grassing compliance is not provided.

Reply 16: As per the directions of the Hon'ble Supreme Court dated 8th January, 2020, "The ML Holders shall after ceasing mining operations, undertake re grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. ", which will be complied with.

Following is the restoration plan for disturbed area at the time of ceasing mining operations to a condition fit for growth of fodder, flora and fauna.

Land use pattern at conceptual stage is given as below:

S. No.	Description	Area (ha.)
1.	ML Area	1594.340
2.	Mineable Area	1280.332
3.	Pit area at the end of CP	1280.332
4.	Area reclaimed by back filling at the end of CP	437.330
5.	Area for water body at the end of CP	752.122
6.	Area under plantation at the end of CP	528.200
7.	Area under sub grade dumps at the end of CP	164.760
8.	Total disturbed area at the end of CP	1445.082

At the conceptual stage, the entire used / disturbed area will be converted into green belt, water body and sub grade mineral dumps. Office buildings and other infrastructures will be demolished and entire area will be developed for plantation purpose.

Total disturbed area will be 1445.082 Ha. out of which 528.200 ha. will be used for Plantation (437.33 Ha. backfilled area and 90.87 Ha. bench & peripheral afforestation area), 752.122 Ha. area will be converted into water body and 164.760 Ha. area will be used for stacking of Sub grade mineral.

Rain water collected in water body will improve the ground water scenario of the area and will be directly used by the nearby farmers for the agricultures purpose.

Local plant species like Amaltash, Saagwan, Bamboo, Gulmohar, Palm tree, Mahua, Sheesham, Neem, Aranica, Jungle Jalebi, Kaitha, Guava, Mango, Bargad and other local fruit bearing varieties will be planted in consultation with forest department for the conservation of local flora and fauna. Total 9,75,627 trees will be planted with an estimated cost of Rs.751.95 Lakh.

22. The committee deliberated in detail on the sequence of mining and impact on the habitations and other surface features including roads; safety barrier proposed against the village and other surface features. Project proponent informed that the mining is proposed to commence in the area near Judi village and proposed to extend towards Dewra and Kakra village. On complete assessment of the sequence of mining operation and concurrent reclamation, the committee is of the opinion that there is need to change the sequence of mining operations proposed during the 5-year plan between 40 to 45 years such a way that no void left adjacent to the Dewra village (West side of Dewra Village).

23. Further, the committee is in receipt of several complaints in respect of the procedure for conduct of public hearing, compensation and R&R. the committee noted that the application filed before the NGT was disposed and no merit was found by the Tribunal. The committee also noted that a PIL was filed before Hon'ble High Court of Madhya Pradesh at Jabalpur with a prayer to stay the grant of environmental clearance on the grounds of improper public consultation and R&R. The committee opined the NGT has already disposed the matter mentioning

that there is no merit in the case. Howbeit, the committee, keeping in view of the complaints received, involvement of the habitations and roads in the ML area, modification required in sequence of mining operation, is of the view that the mining may be permitted in the land already acquired near the Judi Village (about 235 ha), which will cater to the mining operations for a period of about 15 years, as per the information and mining plan submitted by the project proponent. Meanwhile the PP may acquire the land, modify the mining sequence to avoid the void in west side of Dewra Village and approach the Ministry for re-validation or amendment in environmental clearance for permission for the entire area proposed for mining within the ML area. The project proponent also agreed for the same during the meeting. The project proponent has also informed that safety barrier of 100 m against the villages/habitation; 50 m on either side road; 45 m on either side of the nallah; and 250 m from the banks of Ken river will be provided. The project proponent also submitted an affidavit mentioning that the compensation will be paid as per the minimum of all applicable laws.

24. In light of the above, the committee recommended for grant of environmental clearance for the proposal of M/s Jaykaycem Central Limited is for Mining of Limestone to produce - Normative Capacity: 4.00 MTPA, Maximum Achievable Capacity: 4.08 MTPA from Kakra-Panna Limestone Mine in ML area of 1599.34 Ha located at Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna of State Madhya Pradesh subject to the specific conditions in addition to the standard conditions applicable for non-coal mining projects.

- i. Mining shall be restricted to the land already acquired near the Judi Village (about 235 ha). Meanwhile the PP may acquire the land, modify the mining sequence to avoid the void in west side of Dewra Village and approach the Ministry for re-validation or amendment in environmental clearance for permission for the entire area proposed for mining within the ML area.
- ii. The safety barrier of 100 m against the village / Habitation; 45 m on either side of the Nallah; 50 m on either side of the village roads shall be left as non-mining zone and thick green belt shall be developed with native species before commencement of mining operations in the area.
- iii. No mining shall be carried up to 250 m distance from the bank of Ken River and an embankment of not less than 3 m height above the HFL shall be constructed and thick green belt shall be developed with native species before commencement of mining operations in the area.
- iv. The PP shall adopt control blasting with necessary permission from the Director General of Mines Safety within 300 m from the village / Habitation boundary and non-conventional mining with ripper dozer or other mechanical means by avoiding the blasting within 100 m from the village / Habitation boundary. Thick plantation with native and broad leaved species shall be developed in the safety barrier left against the Habitations before commencement of mining operations in the area.
- v. The ground induced blasting vibrations shall be monitored regularly for every blast performed and the values of "Peak Particle Velocity" and "Air Over Pressure" shall be maintained below the permissible values prescribed by the DGMS, from time to time.
- vi. No external dumping of overburden and/or sub-grade material shall be made outside the mining lease area.
- vii. Site specific conservation plan for all the Schedule-I species reported in the study area shall be implemented in consultation with State Forest Department as per the recommendations of Chief Wildlife Warden.
- viii. The total excavation shall not be exceeded to 6.27 MTPA, *inter alia*, including 4.08 MTPA Lime stone; 1.61 MTPA OB/Top Soil/Waste; and 0.58 MTPA sub-grade mineral.

- ix. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, *inter alia*, including plantation all along the boundary of the mining lease shall be completed within 2 years of commencement of mining operations, with a saplings of native and broad leaved species of not less than 12 feet and shall maintain the record of the same, gap plantation and grassing as per the directions of the Hon'ble Supreme Court
- x. The project proponent shall implement the commitments made on the issues raised in PH and activities proposed under CER, 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.
- xi. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented
- xii. 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

2.17 Captive limestone mine for Limestone production of 10 MTPA in 422.94 Ha by M/s Chettinad Cement Corporation Limited at Kallur Village, Chincholi Taluka, Gulbarga [Proposal No. IA/KA/MIN/123452/2019; File No. File No: J- 11015/29/2011-IA. II(M)]- Amendment in EC.

The proposal of M/s Chettinad Cement Corporation Limited is for Amendment w.r.t. removal of EC Specific Condition No. (v) for NBWL Clearance in Environmental Clearance granted vide letter no. J-11015/29/2011-I.A. II (M) dated 08.03.2016 for Captive limestone mine for Limestone production of 10 MTPA in 422.94 Ha at Kallur Village, Chincholi Taluka, Gulbarga. The lease falls in the Survey of India Topo Sheet No. 56 G/7, 56 G/11 and lies between Latitudes - 17°22'22.22" to 17°23'52.73" N and Longitudes - 77°26'38.38" to 77°28'05.04".

2. The environmental clearance was previously granted to M/s Chettinad Cement Corporation Limited by MOEF&CC for Captive limestone mine for Limestone production of 10 MTPA in 422.94 Ha at Kallur Village, Chincholi Taluka, Gulbarga vide letter no. J-11015/29/2011-I.A. II (M) dated 08.03.2016 with a Specific Condition No. (v) which reads as "*Environmental Clearance is subject to obtaining NBWL clearance from Standing Committee of NBWL.*"

3. PP submitted that mining lease is located at a distance of 3.2 KM from Chincholi Wildlife Sanctuary and 2.20 km away from the ESZ boundary as per the final notification published by MoEF&CC on 09.08.2019. PP submitted that as the final ESZ is notified around Chincholi Wildlife Sanctuary and the mining lease is outside the ESZ, therefore in pursuant to Ministry's O.M. No. dated 8.08.2019 there is no requirement of NBWL Clearance. Due to this PP now applied vide **Proposal No. IA/KA/MIN/123452/2019 dated 26.12.2019** for Amendment in the EC dated 08.03.2016 for removal of EC Specific Condition No. (v) w.r.t. NBWL Clearance. The proposal is now placed in EAC meeting held during 22-24 July, 2020.

4. PP submitted that the Review and updation of Mining Plan with Progressive Mine Closure Plan has been approved by IBM vide letter NO. 279/044/2009/BNG/1142 dated 27.11.2018. PP also submitted the EC Compliance report certified by R.O. MoEFCC, Bangalore vide letter No. EP/12.1/2010-11/Kar dated NIL.

5. PP has submitted that Past production details have been authenticated by DMG, Kalaburgai vide letter no. DMG/DDO/ML: 2648/2019-20/3356 dated 24.12.2019 for the period from 2011-12 to 2018-19, affidavit bearing Certificate No. BW 448737 dated 22.12.2019 in compliance of the Ministry's OM No 3-50/2017-IA.III (Pt.), dated 30th May, 2018, Details of consent to establish and Consent to Operate issued by SPCB since 2010 onwards. PP has obtained Consent to Operate vide Order No. AW-311475 dated 20.03.2019 for a period of 5 years valid from 01.04.2019 to 31.03.2024 and Annexure-III as per agenda item for examining the proposal in light of Common Cause Judgment dated 2.08.2017 & S.O. 804(E) dated 14.03.2017.

6. After detailed deliberations on the matter and based on the documents submitted by the project proponent, the Committee observed that initially the EC was granted on 18.06.2010 for production of 4.0 Million TPA, at that time Chincholi Wildlife Sanctuary was not notified and due to this, no specific condition was prescribed. Chincholi Wildlife Sanctuary was declared as Wild Life Sanctuary by Government of Karnataka vide Notification Number FEE 224 FWL 2011 dated 28.22.2011. Therefore, from 28.22.2011 there seems to a requirement of NBWL Clearance to carry out mining operations. The PP also applied for NBWL Clearance on 16.01.2014 and the same was under process at the time of grant of EC on 8.03.2016 for expansion of limestone production from 4.0 MTPA to 10.0 MTPA. This EC was subject to obtaining NBWL Clearance. As the clearance was not obtained this EC did not become operational. The PP carried out mining operation based on EC dated 18.06.2010 as the same was not subject to obtaining NBWL Clearance. The past production details submitted by PP also shows that production is well within the capacity of EC dated 18.06.2010. The committee is of the view as on date there is no requirement of NBWL Clearance for this mine in pursuant to Ministry's dated 8.08.2019 as the mining lease is located outside the notified eco-sensitive zone. The requirement for NBWL clearance was arised, technically, due to declared as Wild Life Sanctuary by Government of Karnataka in 2011 after obtaining the EC. The requirement of the NBWL clearance for retrospective cases needs to be verified. Therefore, from the PP's perspective, there is no fault on his part and he has also made an application for NBWL Clearance on 16.01.2014 and the same was under process at the concerned authorities. In light of this, the committee advised to take the legal opinion on attracting the violation / non-compliance and the ministry may take the action under the provisions in vogue, parallely, based on the legal opinoin.

6. Based on the discussion held and document submitted the Committee **recommended** for amendment in EC dated 8th March, 2016 for deletion of the Specific Condition No. (v) of EC dated 8.03.2016, as the requirement of NBWL clearance is infructuous as per the guidelines issued by the Ministry vide OM dated 8th August, 2019 and also OM vide F.No. 6-60/2020-WL-Part(I), dated 16th July, 2020.

2.18 Kalera Quartz & Feldspar Mine of M/S J.L. DAGA MINES & MINERALS PVT LTD proposed Expansion and modernization production capacity from 25,000 TPA to 1,42,590 TPA (ROM) of Quartz and Feldspar from the Kalera and Para Magra Ganeshpura mine over an area of 135.325 ha, located Near Village: Kalera, Tehsil: Kekri and District: Ajmer (Rajasthan) [Proposal No: IA/RJ/MIN/144756/2020; F.No. IA-J- 11015/31/2020-IA.II(M)]- Terms of Reference.

1. The Proposal of M/S J.L. Daga Mines & Minerals Pvt. Ltd. is for grant of Term of Reference under the purview of MoEF & CC Notification, S.O. 1530(E) dated 6th April 2018 for extension of EC validity along with proposed Expansion and modernization with production capacity from 25,000 TPA to 1,42,590 TPA (ROM) of Quartz and Feldspar from the Kalera and Para Magra Ganeshpura mine over an area of 135.325 ha, located Near Village: Kalera, Tehsil: Kekri and District: Ajmer (Rajasthan). The lease area falls in the Survey of India Toposheet No. 45 O/1 at latitude 25°52'59.62" to 25°54'00.87" N, and longitude 75° 11'

57.60" to 75° 13' 08.33"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", Project or Activity 1(a) – 3, as the Mining lease area is more than 100 Ha.

3. PP submitted that for this mining project EC was obtained in the name of Shri P.C Agarwal under the EIA Notification 1994, vide Ministry's letter No. J11015/5/1999-IA. II (M), dated 15.07.1999 for two mining lease Kalera Mine (135.325 Ha; 25000 TPA) and Para Magra Ganeshpura Mines (M.L. No. 08/95; Area: 136.0 Ha; 15000 TPA) of mineral Feldspar & Quartz.

Previous Application: PP applied for ToR on 05.10.2018 vide Proposal No: IA/RJ/MIN/81378/2018 as per provision of Ministry's Notification S.O. 1530(E) dated 06.04.2018 as the Environmental Clearance was granted under EIA Notification 1994 and submitted Form-1 & PFR. The proposal was placed in EAC meeting held during 15th November, 2018 wherein the proposal was deferred for want of requisite information. The Ministry vide letter dated 12.12.2018 requested PP to submit the information. PP uploaded the information on 26.10.2019. The proposal was then placed in EAC meeting held during 19-20 December, 2019. The Committee observed that application is as per provision of S.O. 1530(E) dated 06.04.2018 made by M/s RBS Mining Pvt. Ltd and PP submitted that mining lease was transferred in the name of M/s Jai Chand Lal Daga Mines & Minerals Pvt Ltd. on 30.01.2019. The proposal was deliberated by the committee based on the information submitted by PP and opined that the proposal involved expansion of production and is for consideration of compliance of notification dated 6th April 2018. The KML file submitted by PP doesn't pertain to the mine under consideration, but is of some other mines. The application made is not in the name of present lease holder. Therefore, the Committee recommended to returned the proposal in present form and ask the PP to apply afresh after making above mentioned corrections. The committee also recommended that the fresh application shall be considered within the provision of notification dated 6th April 2018, as the application was made within the stipulated timeline and the lease has been transferred on 30.01.2019, period during which the proposal was under consideration of Ministry.

Present Application: PP has now applied for ToR under the purview of MoEF & CC Notification, S.O. 1530(E) dated 6th April 2018 vide Proposal no: IA/RJ/MIN/144756/2020 dated 25.06.2020 and has submitted the Form-I and Pre-Feasibility Report.

4. PP has submitted that initially, Mining lease was granted in favor of Sh. Padam Chand Agarwal S/o Sh. Laxmi Chand Agarwal vide letter no.-DMG/CC-5/F-1(1)/07/1995/1089 dated 28/07/1998 and registered on dated 27/08/1998 for 20 year (27/08/1998 to 26/08/2018) for mineral Quartz and Feldspar and Environment Clearance was granted by MoEF vide file no. J-11015/5/99-IA-II(M) on dated 15th July , 1999 in favor of Sh. Padam Chand Agarwal S/o Sh. Laxmi Chand Agarwal under the EIA Notification 1994 but after sudden demise of Sh. P.C Agarwal on dated 11/04/2011 Lease was mutated in favor of Smt. Mani Agarwal W/o Sh. P.C Agarwal vide order no.-ADM/JAI/01/P- 1/2012/96 on dated 2/02/2012 executed on dated 24/02/2012 and registered on dated 27/02/2012. Later on lease was transferred in favor of M/s RBS Mining Pvt. Ltd., vide govt. order no.-DMG/AJ/CC-5/F.1(1)/07/1995/1903 on 29/05/2012, executed on dated 06/07/2012 and registered on dated 13/07/2012. Lease validity was extended for 30 year as per amendment in MMDR, 1957 Act vide govt. order no.AME/SAWAR/M.L.-7/1995 on dated 19/02/2015 i.e valid up to 26/08/2048. Further the lease was again transferred in the name of M/s. J.L Daga Mines and Minerals Pvt. Ltd. vide govt.order no.ADM/JAI/ SAWAR/ M.L.No.07/1995/93 dated 30/01/2019 and executed on dated 27/02/2019 and registered in favor of M/s J.L. Daga Mines and Minerals Pvt. Ltd.

5. PP has submitted that the lease area is non-forest land comprising of Govt. waste land and Agriculture land. There is no wild life sanctuary located within the 10 km radius of the project area. However, one reserved forest and some water bodies are located within the 10 km radius of the project.

6. PP has submitted that Modified Mining Plan with progressive mine closure plan was approved by SME, Ajmer in favor of M/s. J.L Daga Mines and Minerals Pvt. Ltd. vide order no. SME/AJ/Mining Plan/F-A-05/2019/6434 dated 05/07/2019.

PP has submitted that it is proposed to carry out the mining activity by open-cast semi mechanized method of mining with bench formation. Bench height will be kept 3 m and width of benches will be more than 3 m with slope angle 40-45°. Drilling and blasting is proposed in hard strata, if required on hired basis. The mechanical loader is proposed for making the approach roads and for fast removal of overburden and interburden. Transportation of mineral will be done by roads through trucks/dumpers/tippers covered by tarpaulin to the destination place. Total Mineable Reserves is 18,98,520 MT. The life of Mine will be 18 years. The proposed production is 1,42,590 TPA (ROM) (Mineral – 98,592 MT, Reject – 24,648 MT, Overburden – 19,350 MT) from the mining lease area of 135.325 hectares. During four year of plan period Mineral Reject: 75,036 MT and overburden: 28,350 MT will be generated and will be dumped along the lease boundary BC in an area of 8,190 sq mtr having maximum height of 5 m. No top soil will be generated during the plan period.

7. PP has submitted that Current Consent to operate under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981 has been granted from RSPCB vide file no. F(Mines)/Ajmer (Kekri)/131(1)/2016-2017/9621-9625 on dated 20/02/2018 in favor of M/s RBS Mining Pvt. Ltd. and is valid upto 31/01/2023.

8. PP has submitted that Plantation will be carried out in 33% of the lease area and at the end of life of mine on the backfilled area also. Native species which are more suitable to the local environment are preferred to be planted such as Neem, Pipal, Jamun, Sheesham, Mango etc. Action plan for green belt development along with the species to be planted will be detailed in the EIA report after the baseline survey.

9. PP has submitted that water requirement will be met available from tanker water supply from nearby village Kalera. Total water requirement will be 10.00 KLD out of which 2.00 KLD for domestic purpose, 8.00 KLD for dust suppression and plantation purpose. Municipal sewage will be generated from office toilet only. Generated sewage will be disposed through septic tank followed by soak pit.

10. PP has submitted that No Rehabilitation and resettlement (R & R) involved in the said mining project.

11. PP has submitted a Cluster Map showing existing held leases in 500 meter radius of existing M.L. 7A/1995 for Mineral Quartz, Feldspar near Villlage Ganeshpura, Tehsil Kekri, District Ajmer authenticated by Assistant Mining Engineer, Sawar vide AME/SWR/DRG.NO.66 dated 03.07.2019.

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 0.50 crores. The proposed expansion and modernization of Kalera Quartz & Feldspar Mining Project will generate direct and indirect employment. Approximately 40 people are getting direct employment, and some persons are also affected indirectly and employed with allied and related industries, such as transportation, maintenance, etc.

14. After detailed deliberations, the committee observed that the proposal is for ratification of the prior environmental clearance granted under EIA Notification, 1994 in pursuant to the notification vide SO 1530 dated 6th April, 2018. The PP, earlier, applied for ToR on 05.10.2018 and the proposal was placed in EAC meeting held on 15th November, 2018 wherein the proposal was deferred for want of requisite information. Further, the proposal was placed in EAC meeting held during 19-20 December, 2019 and the Committee returned the proposal and asked the PP to apply afresh after making suggested corrections. The committee was also recommended that the fresh application shall be considered within the provision of notification dated 6th April 2018, as the application was made within the stipulated timeline and the lease has been transferred on 30.01.2019, period during which the proposal was under consideration of Ministry. Further, the committee observed that the instant proposal has variations from the mining scheme of earlier EC including mechanized mining in place of manual mining envisaged in the earlier EC. Therefore, the committee is of the opinion to have the public consultation as per the provisions of EIA Notification, 2006 for the proposal.

15. Based on the discussion held and document submitted the Committee **recommended** the proposal of M/S J.L. Daga Mines & Minerals Pvt. Ltd. is for grant of Term of Reference under the purview of MoEF & CC Notification, S.O. 1530(E) dated 6th April 2018 for extension of EC validity along with proposed Expansion and modernization with production capacity from 25,000 TPA to 1,42,590 TPA (ROM) of Quartz and Feldspar from the Kalera and Para Magra Ganeshpura mine over an area of 135.325 ha, located Near Village: Kalera, Tehsil: Kekri and District: Ajmer (Rajasthan). In addition to Standard ToR the Committee also prescribed following additional ToR for this project:

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- (v) 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.
- (vi) 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.
 - (vii) 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.
 - (viii) 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.
 - (ix) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
 - (x) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
 - (xi) 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.
 - (xii) The PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation.
 - (xiii) 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.
 - (xiv) 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.
 - (xv) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.

- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
- (xx) District Survey Report as per Ministry's Notification S.O. 3611(E) dated 25.07.2018 needs to be submitted.
- (xxi) 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.

2.19 Tiroda Iron Ore Mine of M/s Gogte Minerals (ML area 34.4812 ha and production capacity 0.40 MTPA) at village Tiroda in Vengurla Taluk, in Sindhudurg Distt, in Maharashtra [Proposal No: IA/MH/MIN/159107/2020, Old proposal No: IA/MH/MIN/159107/2020; File No: J-11015/1026/2007-IA.II (M)] - Amendment in EC.

The proposal of M/s Gogte Minerals is for Amendment for amendment w.r.t. relaxation of the Specific condition no 4 A (xi) of the Environmental Clearance granted vide letter no. J-11015/29/2011-I.A. II (M) dated 08.03.2016 for Tiroda Iron Ore Mine of M/s Gogte Minerals (ML area 34.4812 ha and production capacity 0.40 MTPA) at village Tiroda in Vengurla Taluk, in Sindhudurg Distt, in Maharashtra.

2. PP has submitted that the environmental clearance was granted by MoEF&CC vide letter no. J-11015/1026/2007-IA.II. (M) dated 31.12.2008 and subsequently revived vide letter no. J-11015/1026/ 2007-LA.II (M) dated 27th May 2013. As per said EC, dated 31.12.2008, the production capacity is 0.4MTPA. The EC granted vide letter dated 31/12/2008 had a specific condition no 4 A (xi) stipulating to leave the barrier of 100m from the Nanos River (the western block of the mining lease is flanked by a small river called as Nanos). The condition read as follows:-

"A 100m barrier no mining zone (within the lease) shall be maintained all along the lease facing Nanos River. The area shall be thickly vegetated with native species of trees and shrubs. Status of implementation shall be submitted to the Regional Office of the Ministry"

3. The PP previously applied for amendment in the above specific condition and the proposal was considered in EAC meeting held during 22-23 August, 2016, 29th May, 2017 and finally on 24th July 2017. Wherein the Committee after

due deliberation **rejected** the proposal considering that only 0.2 MTPA of medium grade mineral was to be retrieved and may possibly impact the ecology and environment of the river and thereby agriculture and rural life in adjoining areas, the benefits are far outweighed by the potential adverse environmental impact.

4. The PP in its submission and presentation provided its justification regarding period of mining lease, quantum of material that can be extracted, provision of MCR, 1960, restriction mentioned in Form-K, provision of MCR, 1961, comments on draft River Regulation zone notification, reclamation plan, revenue to State Government etc. PP also submitted that final mine closure plan is submitted to Indian Bureau of Mines for approval. PP also showed that plan and section for the recovery of mineral. PP submitted that they have undertaken environmental & hydrological studies as advised by the environmental impact assessment committee. Studies had indicated that, there would not be any adverse impact on the environment and surrounding area of the mining lease if the barrier between mining lease and river Nanos is reduced to 50 meters. PP will reinstate the barrier to 100 meters once the mining of ore is completed in a period of 8 to 10 months. Indian Bureau of Mines have approved the mining plan in the interest of the conservation of minerals subject to amendment of EC as stated in the subject above. Further PP requests to modify the Specific Condition no 4A (xi) of the EC as **“A 50m barrier no mining zone from the Nanos River shall *be maintained all along the lease facing Nanos River. The area shall be thickly vegetated with native species of trees and shrubs, Status of implementation shall be submitted to the Regional Office of the Ministry*”**

5. PP has submitted that Copy of Review and Updating of Mining Plan has been approved by IBM vide letter NO. letter no RMP/MECH-03(MAH)/GOA/2019-20, dated 04/02/2020.

6. PP has submitted the Report on *“Impact Assessment (IA) along with Hydrogeological Study on decreasing of Buffer Zone from 100 m to 40 m between the Nanos River and Tiroda Iron Ore Mine of M/s. Gogte Minerals at Tiroda Village, Sawantwadi Taluka, Sindhudurg District, Maharashtra”* prepared by Tesla Innovations (P) Ltd dated February, 2017.

7. PP has submitted Details Consent to Operate issued by SPCB since 2009 onwards.

8. Based on the discussion held and document submitted the Committee has following observation:

a) The Committee is of the view that provision mentioned in the Form-K, MCR, 1960 & MMR, 1961 is mainly focusing on the safety & mineral conservation issues and not on the environmental issues. Further, the previous EC was granted with a condition that *“A 100m barrier no mining zone (within the lease) shall be maintained all along the lease facing Nanos River. The area shall be thickly vegetated with native species of trees and shrubs. Status of implementation shall be submitted to the Regional Office of the Ministry”*. This EC was granted following the procedure laid down in EIA Notification 2006, this notification empowers the Ministry to grant or reject any proposal and decision of the Ministry is to be communicated to the PP. This EC was granted considering the fact that PP shall maintain a 100 meter thickly vegetated safety zone. The KML shows that out of 34.4812 Ha of virgin area most of the area is already degraded due to mining, dumps are still active and not reclaimed completely. PP was supposed to undertake the reclamation activities for the closure of the mines but the same is not yet completed.

b) Committee is of the view that Member Secretary informed that there are some litigation/court case against the project, but PP did not inform the Committee about the same and their current status. PP has previously

dumped the mining waste outside the mining lease area which was not part of the previous EC.

c) The Committee is of the view that time left for mine lease expiry is just 1.5 years and will cause shock load on environment if mineral is allowed for extraction. Vegetation already done in 100 Meter safety zone, if done as for EC condition has to be removed. Mine closure cannot be done within lease validity. IBM approval for further mining has not been obtained yet and as per expert from IBM, PP is already in mine closure period.

9. Based on the discussion held and document submitted the Committee **rejected** the proposal and is of the view that PP shall carry out mine closure activities and status report of the same needs be submitted to the Ministry in every six months with documentary proof such as photograph video etc.

2.20 Proposal under the provision of Notification dated 06.04.2018 of Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha] of M/s FCI Aravali Gypsum & Minerals India Ltd. Located in village Kanoni, Tehsil & District Bikaner, Rajasthan. for Gypsum Production of 50000 TPA & O.B. Handling 136191 m³- [File No. J-11015/2/2019-IA-II(M); Proposal No. IA/RJ/MIN/86968/2018]; Consultant: Mantec Consultants Pvt. Ltd]- EC Regarding

1. The proposal of M/s FCI Aravali Gypsum 86 Minerals India Ltd. is for Production of 50000 TPA Gypsum & O.B. Handling 136191 m³ from Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha] Located in village Kanoni, Tehsil & District Bikaner, Rajasthan. The Project Proponent submitted that mining lease area falls under Survey of India Topo-Sheet No. 44 H/4 and between Latitude: N 28°09'14.11" to N 28°10' 9.76" N85 Longitude: E 73°04' 58.85" to E 73°06' 44.83".

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 had submitted that M/s FCI Aravali Gypsum 86 Minerals India Ltd. has obtained environmental clearance for Kaoni Gypsum (Minor Mineral) Mining project (ML No 01/02, ML Area 250.53 ha) with production capacity 50,000 TPA Gypsum under the provisions of EIA Notification, 1994 vide letter no J-11015/143/2005-IA. II (M) dated 26th May, 2006.

As per the Ministry's Notification S.O. 1530(E) dated 6.04.2018 wherein it has mentioned that "the Hon'ble Supreme Court vide judgment dated the 7th February, 2018 in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation versus M/s Sesa Sterlite Ltd., 86 Ors. has reiterated that the validity of the environmental clearance for mining projects granted under the EIA Notification, 1994 shall be five years" and "whereas, all mining projects mentioned in clause (b) of fourth paragraph above are required to obtain environmental clearance under the EIA Notification, 2006, in pursuance of the aforesaid judgments of the Hon'ble Supreme Court". The clause (b) of the notification is "mining projects, which were granted environmental clearance under the EIA Notification, 1994, and but not obtained environmental clearance for expansion / modernization / amendment under the EIA Notification, 2006." In the instant case the M/s FCI Aravali Gypsum and Minerals India Ltd has obtained the EC under EIA Notification 1994 for production of 50,000 TPA Gypsum from Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha] Located in village Kanoni, Tehsil 86 District Bikaner, Rajasthan under the provisions of EIA Notification, 1994 vide letter no J-11015/ 143/2005-IA. II (M) dated 26th May, 2006 and now applied for EC for production capacity of 50,000 TPA of Gypsum and handling of 136191 m³ /annum of over burden (in pursuant to Ministry's O.M. Z-11013/49/2018 IA. II(M) dated 18.06.2018). As per the notification the PP shall make application within six months (i.e. up to 5.10.2018) from the date of issue

of this notification in Form-1 as given in Appendix-II of the EIA Notification, 2006, for grant of environmental clearance under the provisions of the EIA Notification, 2006, and all such applications shall be considered by the concerned Expert Appraisal Committee or the State Level Expert Appraisal Committee, as the case may be, who shall decide on the due diligence necessary including preparation of Environmental Impact Assessment Report and public consultation and the application shall be appraised accordingly for grant of environmental clearance. In the instant case the PP has applied as per provision of S.O. 1530 (E) dated 06.04.2018 online vide proposal no IA/RJ/MIN/7462/2005 on 1.10.2018 but instead of applying for ToR, PP applied under amendment. The proposal was placed in EAC meeting held during 15th -16th January wherein the Committee returned the proposal in present form and is of the view that PP should apply in Form-1 along with requisite information. The PP then applied vide proposal No. IA/RJ/MIN/86968/2018 on 29.11.2018 and the proposal was placed in EAC meeting held during 22-23 January 2019.

The Committee recommended the proposal under the provision of Notification dated 06.04.2018 of Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha) for prescribing Standard ToR and following Specific Term of References (ToR) for Production 50000 TPA (Gypsum) 86 O.B. Handling 136191 m³ from Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha) for preparation of EIA/EMP Report and conducting public hearing as per provision of EIA Notification 2006. The Ministry granted the ToR on 27.03.2019.

PP after conducting public hearing on 20.11.2019 for the proposed project has now submitted the Final EIA/EMP Report online vide Proposal No. IA/RJ/MIN/86968/2018 after incorporating the Public Hearing proceedings and Action Plan to obtain Environmental Clearance.

Further, through EDS dated 13.02.2020, PP was requested to submit the following parts of Form 2 such as: 1) Proof of Competence/authority of the person, 2) Permission Letter for water uptake, 3) Cluster certificate from DMG. 4) Mining Plan Approval Letter, 5) Proper Undertaking in EIA report, 6) NABL Certificate, regarding which PP has submitted the requisite documents on 20.04.2020.

4. PP submitted that the mining lease over an area of 250.53 ha has been granted in favor of M/s FCI Aravali Gypsum and Minerals India Ltd by the DMG vide order no. F-3(141) Khan/Group-2/07 on dated 17/10/2011 for a period of 20 years i.e. 01/04/2003 to 31/03/2023. As per the amendment in MMDR Act, 1957 came in to existence on dated 12.01.2015 where the lease period is automatically extended for 50 years i.e. up to 31.03.2053.

5. The PP submitted that Mining Scheme with Progressive Mine Closure Plan has been approved by Superintendent Mining Engineer, Mines 86 Geology Deptt, Bikaner vide letter No SME/BKN/CC-III/M. S/ML-01/02/679 dated 01.03.2017.

6. The Proponent submitted that, Mining is carried out by open cast semi-mechanized method. The Gypsum is surficial deposit occur in the form bedded type having considerable thickness in the lease area. The OB as well as gypsum is not very hard & compact, so no drilling and blasting is required. As the mineral is occurring in the shallow depth so the height of the bench is governed by thickness of Gypsum bed. It is proposed that the width of the bench will be kept more than height. The OB as well as mineral will be handled by JCB small capacity excavator. In case, on the particular place if the OB and mineral both are encountered, the mineral bed will be excavated after the OB is fully removed to avoid the intermixing. During the Proposed scheme of period, the pit will be reached up to a depth of 4.55 m and attain a dimension of 650m in length and 418m in width and simultaneously pits will be backfilled. In ultimate life of mine the pit dimensions will be 2708m in length and 853m in which will be backfilled and rehabilitated accordingly. In the five years proposal the OB generation would be 682589 m³ and the generated quantity of OB will be simultaneous year wise backfilled in 3.51 ha, 3.55 ha, 3.50 ha, 3.49 ha, 3.57 ha at the end of 1st year,

2nd Year, 3rd Year, 4th year and 5th year respectively. Thus total 17.62 ha area will be backfilled at the end of scheme period. 01 Nos. of Excavator (Capacity 20000 to 40000 tons of OB per month) and 02 Nos. of Dumper (20 tons) will be deployed for the desired production.

7. PP submitted that the ground water table will be intercepted 40-50 meter below the surface and the mining is proposed up to an ultimate depth of 4.55 meter. So, mining will not intersect the ground water table. There is no seasonal nallas flowing through the lease area, so there will be no impact on the surface water. The total water requirement for the mining project is 43.55 KLD. This includes - Domestic water requirement for the proposed project ~1.4 KLD. Water requirement for dust suppression ~17.15 KLD and the daily water requirement for the plantation purpose ~25 KLD. Water requirement will be fulfilled through tanker supply. This will be used for storage of water for mining work, spraying, watering the plants and drinking purposes.

8. PP has submitted that it is proposed to plant 5000 Nos. of native species along with some fruit bearing and medicinal trees per annum covering a total of 53 ha area. However, 28000 plants have already been planted by M/s FCI Aravali Gypsum and Minerals India Ltd. till March 2019 over an area of 35ha. Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning. Under the afforestation plan, plantation in nearby villages and connecting roads will be done. The implementation for development of greenbelt will be of paramount importance as it will not only add up as an aesthetic value but will also act as a pollution sink. The species to be grown in the areas will be dust tolerant and fast growing species. Plantation in the roads is necessary as these areas will contain fine particulates resulting from mineral transportation activity. Plantation will also be carried out as social forestry program in village, school and the areas allocated by the Panchayat/State authorities. Native plants like Neem, Peepal, and other local species will be planted. A suitable combination of trees that can grow fast and have good leaf cover shall be adopted to develop the greenbelt. A budget of Rs. 3.37 Lakh/Annum is proposed for the Plantation/ Green belt development.

9. The PP submitted that out of total lease area, 32.68 ha is the agricultural land and remaining 217.85 ha is government land. There is no stream and nalla exists within lease area. After excavation of mineral 32.68 ha out of 250.53 ha will be used for agriculture purpose and remaining Govt. waste land will be developed as green belt area. The PP submitted that General Condition is not applicable for the project and the project does not require clearance under Forest Conservation Act, 1980, Wildlife Protection Act, 1972. There is no National Park, Wildlife Sanctuary, Biosphere Reserve within 10 km of project site. Vegetation study has been done in 10 Km periphery of mine lease area.

10. PP submitted that EB Study has been carried out by the Ecology and Biodiversity Expert (NABET/QCI Approved) in and around the lease area to study the wild life of the area and Nine Schedule-I species (Wildlife protection Act, 1972) were recorded and their wildlife conservation plan (Rs. 10 Lakhs) has been prepared. The cost of conservation is earmarked to be Rs. 10 lakhs and period of implementation will be 2020-2021. The conservation plan for Schedule-I Species has not been approved from competent authority.

11. PP has submitted a District Survey Report (Minor Minerals Other than Sand Mining) for District Bikaner for the year 2018 issued from the Office of Superintending Geologist, Department of mines and Geology, Bikaner, Gov. of Rajasthan.

12. PP has submitted that baseline data of study area within 10 Km radius of the project site was collected during winter season (Dec. 2018 to February 2019). The laboratory report and field monitoring data of Air, water, noise and soil etc. has been collected along-with Site specific meteorology data. During the study period, wind speed measured on site varied between 0 to 2.84m/s. The wind rose

diagram indicates predominant wind direction is from South. As per the analytical reports of the 10 Km study area the ambient air quality is well below the NAAQS limits. However, after commissioning of the project the prevailing baseline status of area will be distributed so to maintain the ambient air quality of the area, the latest / modern air pollution control measurements along with suitable EMP will be adopted. The noise levels at all location are well below the NAAQS standards w.r.t noise. Due to the mine project the traffic density will increase as the entire mineral will be transported through the SH-3 under study and the value of LOS would remain same i.e. Very good. The water analysis results indicate that the pH value is 7.48 to 7.53 which is well within the specified standard of 6.5 to 8.5. The TDS was observed as 714 to 865 mg/l, chlorides (178 to 216 mg/l), sulphate (84 to 108mg/l), Total hardness (306 to 412 mg/l) and Metals: Iron (0.12 -0.18 mg/l). The soil will not be affected by proposed mining project since the mining & its allied activities will not affect the nearby soil quality of area. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the mitigate measures are suggested to control harmful impacts of pollutants, like the plantation of trees along haul roads, especially near settlements, to help to reduce the impact of dust on the nearby villages; regular water sprinkling on unpaved roads to avoid dust generation during transportation etc.

13. The Project Proponent reported that Public Hearing was held on 20.11.2019 at 11:00 am at Rajiv Gandhi Seva Kendra, Kaoni under the chairmanship of Mr. A.H. Gauri, Additional District Collector, Bikaner, Rajasthan. The advertisements for Public Hearing were published in "Dainik Kamyab Club" on 19.10.2019 and in "Rajasthan Patrika" on 20.11.2019. Total presence was observed as 47 number. The issues raised during public hearing included related to Plantation, road maintenance, employment etc.

14. PP has submitted that as per the Office Memorandum F. No. 22-65/2017-IA.III dated May 1st 2018 by the MoEF&CC, The Corporate Environment Responsibility (CER) for Brownfield project is 1% of the project cost i.e. Rs. 42000. The mining operations will provide employment to 31 people. A budget of Rs. 0.42 lakhs is proposed under CER activities. The same will be spent as Health camp checkup.

15. PP reported that there is no rehabilitation and resettlement proposed in the lease area.

16. The Project Proponent submitted that budgetary provision for Environmental Management Plan (EMP) has been made for a total of ₹ 1 Lakh (Capital) & ₹ 4 lakhs (recurring/annum). This will include 1) Dust Suppression (Recurring/annum – Rs. 1.5 Lakhs), 2) Environmental Monitoring – Air, Water, Noise and Soil (Recurring/annum – Rs. 1.0 Lakhs), 3) Haul road Maintenance (Recurring/annum – Rs. 1.0 Lakhs), 4) Waste water treatment and solid waste treatment (Capital – Rs. 0.50 Lakhs & Recurring/annum – Rs. 0.20 Lakhs) and 5) Rainwater recharging (Capital – Rs. 0.50 Lakhs & Recurring/annum – Rs. 0.30 Lakhs).

17. PP has submitted that this project will have an impact on the human health due to Gypsum, increased dust, creation of breeding grounds for disease vectors, population influx which might introduce new diseases in the area, and inadequate sanitation facilities may result in severe health Impact. Occupational Hazard due to Proposed Mining Activity of Gypsum may result in Physical Injury and Dust Exposure. Site Specific HIRA shall be prepared and shall be carried out at regular basis to reduce risk to occupational Hazard at site. A well-developed Safety Management is implemented and will be complied for Proposed Expansion at the site also due care will be taken to avoid any Minor /Major Incidents. Occupational Health Monitoring Program will be implemented to Monitor Health of Employees and Workers. Management will consider the following safety measures: Safety clauses in contract order, Dedicated safety team, Inspection and maintenance of equipment's and accessories, Pre placement and periodic

health check up, Removal of unsafe conditions and prevention of unsafe acts, Detailed analysis of each and every incident, To provide standard PPEs and ensure its uses for mining safety, Periodic inspection by internal and external safety experts, Celebrations of various safety events for awareness, Medical facilities & first aid boxes will be established in the mine premises. Pits, Sumps, openings in floor, etc. which may be a source of danger, will be either securely covered or securely fenced. Securely fencing a pit means covering or fencing it in such a way that it ceases to be a source of danger. Health Awareness Programs and camps will be organized. The mine workers will be provided all necessary PPE, especially dust masks for their safeguard from dust, Ear Plugs/Ear Muffs for noise, boots etc. and measures for other hazards. Under initial vocational training, the workers will be given training related to all safety and health aspects. PP has earmarked a total of Rs. 2.0 Lakhs towards OHS which include 1) Health awareness Program and Training (Rs. 0.50 Lakhs), 2) PPE (Rs. 0.30 Lakhs), 3) Mine Safety Training to Workers (0.20 Lakhs), 4) First Aid Training (Rs. 0.50 Lakhs) and 5) EHA Audit (Rs. 0.50 Lakhs).

18. PP submitted that here is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

19. PP in the EIA Report has submitted the undertaking stating that the Environmental Impact Assessment Report and Environment Management Plan for Existing Kaoni Gypsum Mining project, over an area of area 250.53 ha with production capacity 50,000 TPA Gypsum and 136191 cu.m/year by M/s FCI Aravali Gypsum and Minerals India Ltd by Mantec Consultants Pvt Ltd have been reviewed thoroughly at their end before submission. On behalf of M/ FCI Aravali Gypsum and Minerals India Ltd hereby undertake that the data and information provided in the report are correct to the best of their understanding, and they own responsibility for correctness of contents of the EIA report.

The Consultant in the EIA report has given an undertaking stating that *“that the this EIA EMP Report for Existing Kaoni Gypsum Mining project, over an area of area 250.53ha with production capacity 50,000 TPA Gypsum and 136191 cu.m/year by M/s FCI Aravali Gypsum and Minerals India Ltd has been prepared at Mantec Consultants Pvt. Ltd. I also confirm that I shall be fully accountable for any misleading information mentioned in this Report.”*

Further, 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. 0.4247 Crore and will provide permanent employment to 31 persons during operation.

21. The proposal was placed in the 17th EAC held during 28-29, May and 1st June, 2020. The project proponent did not connect due to technical problem. Subsequently, the project proponent requested through e-mail dated 1st June, 2020 to consider the project in the next meeting. Therefore, the proposal was considered in the instant meeting i.e. 19th EAC meeting held during 22-24 July, 2020.

22. The committee observed that the quality of EIA/EMP report is very poor. The committee warned the consultant and advised to improve by including the quantitative assessment and drawing the appropriate mitigative measures.

23. After detailed deliberations, the committee observed that the instant proposal is for grant of environmental clearance under SO 1530 dated 6th April, 2018 in pursuant to the directions of Hon'ble Supreme Court. The project was

already granted environmental clearance under the provisions of EIA Notification, 1994 vide letter no J-11015/ 143/2005-IA. II (M) dated 26th May, 2006. The proponent also conducted the fresh public consultation on 20th November, 2019. The committee **recommended** for grant environmental clearance under the provisions of EIA Notification, 2006 in accordance with the SO 1530 dated 6th April, 2018 for Production of 50000 TPA Gypsum & O.B. Handling 136191 m³ from Kaoni Gypsum Mining Project [ML No 01/02; 250.53 Ha] Located in village Kanoni, Tehsil & District Bikaner, Rajasthan subject to the following specific conditions in addition to the standard conditions applicable for non-coal mining projects.

- i. The PP shall make an arrangement for sprinkling of the water for dust suppression on haul roads and transportation roads through water sprinklers. Necessary water spraying arrangements shall be made at excavation and transfer points by deploying the mist generators or other suitable means for suppression of the dust.
- ii. The PP shall carryout the plantation 7.5 m width all along the boundary of the Mining lease area within one year (i.e. during 2020-21) and avenue plantation along the transportation road with native species sapling of not less than 12 feet height and arrangements shall be made for maintenance including regular watering and protection from cattle. The implementation report shall be submitted to the Regional office of the Ministry along with the compliance report in the year 2021.
- iii. The excavation shall not be exceeded to 50,000 TPA of Gypsum.
- iv. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, *inter alia*, including plantation all along the boundary of the mining lease shall be completed within 1 years of commencement of mining operations, with a saplings of native and broad leaved species of not less than 12 feet and shall maintain the record of the same, gap plantation and grassing as per the directions of the Hon'ble Supreme Court.
- v. The project proponent shall implement the commitments made on the issues raised in PH and activities proposed under CER, 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.
- vi. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.
- vii. 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.

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 pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

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 and modified to make monitorable and relevant to the sector)

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) 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".
- 5) 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.
- 6) 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.
- 7) 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.
- 8) 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

- 9) 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.

10) 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

11) 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.

12) 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.

13) 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 including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. 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.

14) 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.

15) 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.

16) 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.

17) 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

18) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

19) 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.

20) 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

21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

22) The 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

23) The Overburden (O.B.), waste and topsoil 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 / waste dumps / topsoil dump like height, width and angle of slope shall be governed as

per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.

24) 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.

25) 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.

26) 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.

VII. Transportation

27) 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. [If applicable in case of road transport]

28) 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**

29) 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.

30) 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.

31) 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.

IX. Public hearing and human health issues

32) 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.

X. Corporate Environment Responsibility (CER)

33) 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.

XI. Miscellaneous

34) 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.

35) 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.

36) 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.

37) 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.

38) 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.

39) 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, Koiria) 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 Koiraregion. 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, NO_x 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) The water 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 self-sustaining. 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 July	23rd July	24th July
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	Yes	Yes	Yes
4	Prof. S. Ramakrishna Rao	50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	Yes	Yes	Yes
5	Shri Santosh Gupta	Flat No. 405, Block –B, Gaur Green Vista, NyayKhand -1, Indrapuram, Ghaziabad-201014	Member	Yes	Yes	Yes
6	Dr. (Ms.) Asha Rajvanshi	Wildlife Institute of Inida, Chandrabani, Dehradun-248001	Member	Yes	Yes	Yes
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	Yes	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 Chandra Bhattacharjee	A/3 Asiyana Housing Complex Maligaon, Guwahati-781011, Assam	Member	No	No	No
12	Prof. MukeshKhare	Department of Civil Engineering, IIT, Delhi	Member	Yes	Yes	Yes
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. Pankaj Kulakshethra	Regional Controller of Mines, IBM Block D, Second Floor,	Member	Yes	Yes	Yes

		Indira Bhavan, Civil Lines, Nagpur - 440001				
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
16	Sh. B.K. Soda	ADM, Jaipur, Representative of State Government of Rajasthan	Special invitee	Yes	No	No

Note: Dr. Ajay Deshpande, Member, EAC requested for recusal for item No. 2.19 of Agenda and Chairman agreed for the same.

Email**sharath.kr@gov.in**

Re: Draft Minutes of Meeting of 19th EAC held during 22-24 July, 2020

From : satishwate@gmail.com

Sun, Aug 02, 2020 04:41 PM

Subject : Re: Draft Minutes of Meeting of 19th EAC held during
22-24 July, 2020**To :** Sharath Kumar Pallerla <sharath.kr@gov.in>

Minutes of the 19 th meeting of EAC Non Coal approved.

Satish Wate
Chairman
EAC Non Coal

Sent from my iPhone

On Jul 31, 2020, at 10:57 PM, Sharath Kumar Pallerla <sharath.kr@gov.in> wrote:Sir/Ma'am,
please find enclosed herewith Draft Minutes of Meeting of 19th EAC held
during 22-24 July, 2020 for kind perusal and approval please
Regards,**SHARATH KUMAR PALLERLA**
Director, IA Division (Policy and Non-Coal Mining)
Ministry of Environment, Forest and Climate Change,
R. No. 306, Level-III, Vayu Wing,
Inidira Paryavaran Bhavan,
Jor Bagh Road, Aliganj, New Delhi - 110003**Tele_+91-11-24695319****EPABX: +91-11-24965294 Extn: 4317**
Alternate ID:psharath1974@gmail.com

<Draft MoM of 19th EAC.docx>