

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

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**SUMMARY RECORD OF 3<sup>rd</sup> MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.**

The 3<sup>rd</sup> 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 **March 25-26, 2019**. The list of participants is annexed herewith. Shri. G.P. Kundargi is requested the chairman to recuse him from appraising the agenda no. 2.7 and Chairman accepted his request. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

**(1.1) Deliberation & Circulation on the Minutes of the 2<sup>nd</sup> EAC Meeting held during February 20-21, 2019:**

The Minutes of the 2<sup>nd</sup> Meeting of EAC held during **February 20-21, 2019** were circulated to the members of the Committee. The Committee made brief deliberations on the proposals placed in the last meeting and approved the same with the following amendments:

(a) **Page Nos. 37, 42, 49, 53, 174 & 183 of the Minutes of EAC held during January 22-23, 2019:** The word 'Achromatic Hydrocarbon' mentioned at page numbers 37, 42, 49, 53, 174 & 183 may be read as 'Aromatic Hydrocarbon'.

(b) **Page no. 1 and 25 of the Minutes of EAC held during February 20-21, 2019:** The Day 1: February 20, 2018 [Wednesday] and Day 2: February 21, 2018 [Thursday] mentioned at page numbers 1 and 25 may be read as Day 1: February 20, 2019 [Wednesday] and Day 2: February 21, 2019 [Thursday].

**Day 1: March 25, 2019 [Monday]**

**(2.1 and 2.2). Appraisal of 24 ECs for Minor Minerals granted by the SEIAA, UP as mentioned in the Appeal No. 264 of 2018 and 12 ECs for Minor Minerals for which EC was granted by the SEIAA, UP as mentioned in the Appeal No. 263 of 2018 in the matter**

**of Amit Upadhaya Vs State Level EIA Authority & Ors. before  
the Hon'ble NGT Delhi**

Members experts from SEAC, Uttar Pradesh namely Shri Meraj Uddin, Dr. Sarita Sinha, and Shri Rajiv Kumar along with officers from DGM (Shri Amit Kaushik, Sr. Mining Officer) and State Environmental Impact Assessment Authority (SEIAA) [Shri Subran Kumar, Asst Director DoE, UP attended the meeting. Member Secretary, SEAC-UP was reported ill and did not attend the meeting. Representative from CPCB was also not available.

SEAC gave a brief presentation and submitted that the procedures have been due diligent followed by SEAC/SEIAA. He further submitted that SEAC was of the opinion that regional EIA is amalgamation of individual EIA's, but considering the provisions of EIA Notification 2006 (and as amended), the SEAC had asked the PP to submit individual EIA prior to SEIAA appraisal. The appraisal of proposals was based on individual EIAs done in Nov – Dec 2018.

2. Ministry (MoEF&CC) made submission on their findings in the reports as well as procedure adopted and also, technical aspects of the Appraisal process. A presentation including a comparative information was made by MoEF&CC.

3. The deliberation/observations during the course of meeting are as below:

a) The cluster appraisal as stipulated in the notification S.O. 141(E) dated 15.01.2016 is not followed in some cases except which are classified as individual category as per cluster certificate issued by DMG, UP. The list of individual projects are as below:

- i) M/s Shri Construction (file no 4433-4538; Proposal No SIA/UP/MIN/28510/2018; Regional EIA (Study Area-2), is an individual project of 36.437 Ha as per Cluster certificate issued vide Lr No. 818/khanij/mmc-30 dated 12.09.2018.
- ii) M/s Senvin Infrastructure Pvt. Ltd (file no 4103; Proposal No SIA/UP/MIN/21915/2018; Regional EIA (Study Area-1), is an individual project of 27.53 Ha as per Cluster certificate issued vide Lr No. 808/khanij/mmc-30 dated 25.01.2018.
- iii) M/s Chaudhary Traders (file no 4227; Proposal No SIA/UP/MIN/25126/2018; Information submitted by DMG, UP vide Lr No 2411/M-Vad N.G.T /2019 dated 17.01.2019 is an individual project of 25.29 Ha.
- iv) M/s Eureka Mines And Minerals LLP (file no 4050; Proposal No SIA/UP/MIN/21868/2018; Regional EIA (Study Area-3), the mining lease area as per Letter of Intent issued on 26.02.2018 is 12.145 and

is a B2 Project as per S.O. 141(E) dated 15.01.2016. The Cluster certificate is not issued for this mine. Further, as per recent information submitted by DMG, UP vide Lr No 2411/M-Vad N.G.T /2019 dated 17.01.2019, the area of this mining lease and cluster details is marked as NIL. Thus, there is a discrepancy in the cluster area mentioned by DMG, UP

- b) It is observed that **except in following cases**, there is change in Cluster area of other projects as per the Certificates issued by DMG initially and as reported by DMG vide its Lr No 2411/M-Vad N.G.T /2019 dated 17.01.2019.

Appeal No	File No	Project Name	Proposal Number
264	4192	M/s KANHA CONSTRUCTION COMPANY	SIA/UP/MIN/23553/2018
264	4325	M/s Sai Constructions & Suppliers	SIA/UP/MIN/26243/2018
264	4358	MS VIKAS ENTERPRISE	SIA/UP/MIN/27821/2018
264	4233	MS GYAN INFRABUILD PVT LTD	SIA/UP/MIN/24938/2018
264	4322	M/s Senvin Infrastructure Pvt. Ltd.	SIA/UP/MIN/26229/2018
264	4103	MS SANEYWIN INFRASTRUCTURE PRIVATE LIMITED	SIA/UP/MIN/21915/2018
264	4304	MS SENVIN INFRASTRUCTURE PVT LTD	SIA/UP/MIN/26125/2018
264	4234	MS SILVRR MIST RETAIL PRIVATE LIMITED	SIA/UP/MIN/25040/2018
263	4384-4512	M/s Eureka Mines and Minerals LLP	SIA/UP/MIN/29419/2018
263	4335	M/s Chaudhary Int Udyog	SIA/UP/MIN/29573/2018
263	4438-4533	M/s New Praveera Infrahight Private Limited (4438)	SIA/UP/MIN/28568/2018
263	4446-4534	Shri Rahul Kumar Gupta	SIA/UP/MIN/28608/2018
263	4420-4531	M/s Kanhaiyalal And Sons (4420)	SIA/UP/MIN/28402/2018
263	4433-4538	M/s Shri Construction	SIA/UP/MIN/28510/2018

- c) The screening stage of EC regulation is an important stage where SEAC/SEIAA needs to ensure proper documentation and also assessment of category of project. It is observed that the initial screening time taken by SEIAA varies between 0 to 12 days. Three projects were accepted on the same day, 24 Projects within 0-5 days and remaining cases within 6-12 days.

It is observed that Project Proponent has not uploaded the cluster certificate and letter of intent at the time of grant of ToR. These documents

are necessary for screening of the project into various categories (A, B1 & B2 and cluster B1 & B2). Therefore, SEIAA have limited the process of Screening the projects as per the provision of EIA, notification 2016

- d) The Ministry in its O.M No J-11013/19/2012-IA.II (I) dated 20.03.2012 & O.M No J-11013/19/2012-IA.II (I) dated 29.08.2013 clearly mentioned about online uploading of documents viz. Form-1, Pre-feasibility reports, EIA/EMP, Public Hearing minutes, study reports, information sought by EAC/SEAC, ToR/EC letter and other documents, pertaining to a project for grant of ToR/EC and made available in public domain.
- i) It is observed that the Letter of Intent and Cluster Certificate is not available online at ToR stage for all the proposals mentioned in Appeal No 263 & 264. In the following cases EC has been granted but the online system is showing as ToR in awaiting status. It suggests that ToR letters were not issued/uploaded online. Details as below:

Appeal No.	File No.	Project Name	Proposal No.	REI A	Area (in Ha)	Online Status
263	4404-4510	M/s New Eoan Associates	SIA/UP/MIN/29418/2018	REI A-1	24.291	Awaiting ToR
263	4384-4512	M/s Eureka Mines and Minerals LLP	SIA/UP/MIN/29419/2018	REI A-2	16.194	Awaiting ToR
263	4406	M/s Harihar Minerals LLP (SIA/UP/MIN/28370/2018)	SIA/UP/MIN/29422/2018	REI A-2	12.145	Awaiting ToR
263	4335	M/s Chaudhary Int Udyog	SIA/UP/MIN/29573/2018	REI A-4	13	Awaiting ToR
263	4437	M/s Satyam Construction	SIA/UP/MIN/28562/2018	REI A-1	36.437	Awaiting ToR

- ii) It has been observed that PP has applied for EC but did not upload the complete REIA online due to size restrictions. The SEIAA did not raise any query and accepted the EC applications. Although there is a size restriction but the PP has an option to upload the REIA in parts but the same was not done. SEIAA also have option to request NIC for increasing the size limit but no documentary evidence regarding efforts taken by SEIAA is produced before the EAC. This suggests that the complete information was not made available online.

However, on 15.11.2018 based on the joint meeting, SEIAA raised query to upload the EIA reports of the individual project and PP uploaded the same on 16.11.2018.

For the following projects, online information viz. application and letter for EC is not available.

Appeal No.	File No	Project Name	Proposal Number	REIA	Area (In Ha)	Online Status
263	4437	M/s Satyam Construction	SIA/UP/MIN/28562/2018	REIA-1	36.437	No Record Found
263	4439-4528	M/s Disha Enterprises	SIA/UP/MIN/28574/2018	REIA-1	36.437	No Record Found
263	4529	M/s Yadav And Sons	SIA/UP/MIN/28494/2018	REIA-2	12.145	No Record Found
263	4438-4533	M/s New Praveera Infrighth Private Limited (4438)	SIA/UP/MIN/28568/2018	REIA-2	20.242	No Record Found
263	4446-4534	Shri Rahul Kumar Gupta	SIA/UP/MIN/28608/2018	REIA-2	36.437	No Record Found
263	4420-4531	M/s Kanhaiyalal And Sons (4420)	SIA/UP/MIN/28402/2018	REIA-2	29.554	No Record Found
263	4426-4532	M/s Kamalnath Enterprises Private Limited (4426)	SIA/UP/MIN/28470/2018	REIA-2	36.437	No Record Found
263	4433-4538	M/s Shri Construction	SIA/UP/MIN/28510/2018	REIA-2	36.437	No Record Found

**This reflects that the relevant information including EC letter was not uploaded on the website as required by Ministry's O.Ms.**

e) The REIA was de-segregated into individual EIAs. The minimum and maximum lease area is 12.145 Ha and 36.737 Ha respectively. These lease are sand mining and have the possibility of annual replenishment. The REIA has a special connotation while individual EIA is very site specific. It is scientifically accepted that REIA is a sound appraisal process, but the EIA Notification 2006 (as amended) refers consideration of cumulative impacts of the Cluster.

The DMG, UP did not define the size of cluster, did not prepare the mine plan and EMP for cluster, did not prepare the Regional Mine Plan including all the cluster in contiguity.

In addition to this, although these mining leases are forming cluster but individual clusters are not contiguous, so the cluster impact would have been

preferred instead of Regional Approach. However, if the critical conditions has been considered to meet the objective of EIA notification, either of the cluster or regional aspect may be acceptable, provided all aspect have been scientifically considered.

- f) The public hearing (PH) is a stage after TOR is issued for preparation of EIA as per the EIA notification 2016. It has been observed that this has not been in agreement in some project appraised by SEIAA/SEAC. The details are as below:
- g) Proposals in which advertisement of PH was issued before the grant of Term of Reference (ToR):

Appeal No.	File No	Project Name	Proposal No.	Study Report No.	LoI Date	Date of ToR	Base Line	Date of Adv	Date of PH
264	4358	MS VIKAS ENTERPRISE	SIA/UP/MIN/27821/2018	REIA-3	07.06.2018	20-Aug-18	Mar-May-18	17-Aug-18	18-Sep-18
264	4376	MS BABA BHOLENA TH TRADARS	SIA/UP/MIN/27993/2018	REIA-2	11-Jun-18	20-Aug-18	Mar-May-18	17-Aug-18	18-Sep-18
264	4337	M/S AWASTHI TRADERS	SIA/UP/MIN/27752/2018	REIA-4	7-Jun-18	19-Sep-18	Mar-May-18	17-Aug-18	20-Sep-18

- h) Projects in which Public Hearing was conducted based on standard ToR.

Appeal No.	File No	Project Name	Proposal No.	Study Report No.	LoI Date	Date of ToR	Base Line	Date of Adv	Date of PH
263	4510	M/s New Eoan Associates	SIA/UP/MIN/29418/2018	REIA-1	18-Jun-18	NIL	Mar-May-18	17-Aug-18	19-Sep-18
263	4512 - 4384	M/s Eureka Mines and Minerals LLP	SIA/UP/MIN/29419/2018	REIA-2	27-Jan-18	NIL	Mar-May-18	17-Aug-18	19-Sep-18
263	4406	M/s Harihar Minerals LLP	SIA/UP/MIN/29422/2018	REIA-2	8-May-18	NIL	Mar-May-18	17-Aug-18	19-Sep-18
263	4335	M/s Chaudhary Int Udyog	SIA/UP/MIN/29573/2018	REIA-4	27-May-18	NIL	Mar-May-18	22-Aug-18	26-Sep-18

263	4437	M/s Satyam Construction	SIA/UP/MIN/28562/2018	REIA-1	18-Jul-18	NIL	Mar-May-18	3-Sep-18	5-Oct-18
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- i) The Committee was of the view that ToR is a stage where scoping of the project is done for preparation of EIA/EMP Report. This is the stage wherein the SEAC can prescribe additional ToR and even reject the proposal, if required.

Although there is a provision of Standard ToR. But in the Minutes of meeting and in ToR issued for some project, preparation of Regional EMP has been prescribed.

EAC is of the view that Public Hearing is a stage after scoping as per EIA Notification 2006 and EIA/EMP needs to be prepared based on the ToR (Standard/prescribed by SEAC) issued by the SEIAA.

Appeal No.	File No	Project Name	Proposal No.	Study Report No.	LoI Date	Date of ToR	Base Line	Dat of Adv	Date of PH
263	4528	M/s Disha Enterprises	SIA/UP/MIN/28574/2018	REIA-1	24-Jul-18	<b>13-Nov-18</b>	Mar-May-18	3-Sep-18	<b>5-Oct-18</b>
263	4529	M/s Yadav And Sons	SIA/UP/MIN/28494/2018	REIA-2	24-Jul-18	<b>13-Nov-18</b>	Mar-May-18	3-Sep-18	<b>5-Oct-18</b>
263	4533	M/s New Praveera Infracright Private Limited (4438)	SIA/UP/MIN/28568/2018	REIA-2	26-Jul-18	<b>13-Nov-18</b>	Mar-May-18	3-Sep-18	<b>4-Oct-18</b>
263	4534	Shri Rahul Kumar Gupta	SIA/UP/MIN/28608/2018	REIA-2	24-Jul-18	<b>13-Nov-18</b>	Mar-May-18	3-Sep-18	<b>4-Oct-18</b>
263	4531	M/s Kanhaiyalal And Sons (4420)	SIA/UP/MIN/28402/2018	REIA-2	18-Jul-18	<b>22-Oct-18</b>	Mar-May-18	3-Sep-18	<b>4-Oct-18</b>
263	4532	M/s Kamalnath Enterprises Private Limited (4426)	SIA/UP/MIN/28470/2018	REIA-2	18-Jul-18	<b>22-Oct-18</b>	Mar-May-18	3-Sep-18	<b>4-Oct-18</b>

263	4538	M/s Shri Construction	SIA/UP/MIN/28510/2018	REIA-2	26-Jun-18	<b>13-Nov-18</b>	Mar-May-18	3-Sep-18	<b>4-Oct-18</b>
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- ii) It was observed that in some cases the baseline data was collected before the grant of Letter of Intent (LoI) and data collection is even before date of e-auction (20.06.2018). SEAC member was not able to clarify whether the data was collected within the provision of OM issued by MoEF&CC, wherein baseline data can be collected before the grant of ToR or data generated in a specified time period can be used for the purpose. Therefore, apprehension on the reliability of the baseline data used for the study was observed by the committee for following projects:

<b>ppeal No.</b>	<b>File No</b>	<b>Project Name</b>	<b>Proposal No.</b>	<b>Study Report No.</b>	<b>LoI Date</b>	<b>Date of ToR</b>	<b>Base Line</b>	<b>Dat of Adv</b>	<b>Date of PH</b>
263	4437	M/s Satyam Construction	SIA/UP/MIN/28562/2018	REIA-1	<b>18-Jul-18</b>	24-Aug-18	<b>Mar-May-18</b>	3-Sep-18	5-Oct-18
263	4528	M/s Disha Enterprises	SIA/UP/MIN/28574/2018	REIA-1	<b>24-Jul-18</b>	13-Nov-18	<b>Mar-May-18</b>	3-Sep-18	5-Oct-18
263	4529	M/s Yadav And Sons	SIA/UP/MIN/28494/2018	REIA-2	<b>24-Jul-18</b>	13-Nov-18	<b>Mar-May-18</b>	3-Sep-18	5-Oct-18
263	4533	M/s New Praveera Infrighth Private Limited (4438)	SIA/UP/MIN/28568/2018	REIA-2	<b>26-Jul-18</b>	13-Nov-18	<b>Mar-May-18</b>	3-Sep-18	4-Oct-18
263	4534	Shri Rahul Kumar Gupta	SIA/UP/MIN/28608/2018	REIA-2	<b>24-Jul-18</b>	13-Nov-18	<b>Mar-May-18</b>	3-Sep-18	4-Oct-18
263	4531	M/s Kanhaiyalal And Sons (4420)	SIA/UP/MIN/28402/2018	REIA-2	<b>18-Jul-18</b>	22-Oct-18	<b>Mar-May-18</b>	3-Sep-18	4-Oct-18
263	4532	M/s Kamalnath Enterprises Private Limited (4426)	SIA/UP/MIN/28470/2018	REIA-2	<b>18-Jul-18</b>	22-Oct-18	<b>Mar-May-18</b>	3-Sep-18	4-Oct-18
263	4538	M/s Shri Construction	SIA/UP/MIN/28510/2018	REIA-2	<b>26-Jun-18</b>	13-Nov-18	<b>Mar-May-18</b>	3-Sep-18	4-Oct-18

- j) Certain technical issues including appraisal of impact prediction with regard to baseline data of water, noise and air considered in the report raises apprehension on its reasonability. Some of the examples are as follows:

### **Comments on REIA-1 to 5**

- i) In the **REIA-1 at Page No III-4**, mentioned that in the DSR of Hamirpur and Jalaun, Betwa has a 132 km and 28 km stretch in the districts respectively, which has almost 10,000 ha mineable areas and which are administratively carved in 166 mining leases in Hamirpur and 72 mining lease in Jalaun. But PP has provided details of only 11 mining leases (8 B1 Category and 3 B2 Category).

In the **REIA-2 at Page No 1-5** it has mentioned that the total mine lease area is 631.51 ha (inclusive of upcoming projects for which Public Hearing/EC is awaited) and the total annual production will be 9903658 cum/annum (inclusive of upcoming projects for which Public Hearing/EC is awaited).

In **REIA-3 at P.1-5** it has mentioned that the total mine lease area is 172.19 Ha (inclusive of upcoming projects for which Public Hearing/EC is awaited) and the total annual production will be 2667547.0 (inclusive of upcoming projects for which Public Hearing/EC is awaited) cum/annum. In the DSR of Hamirpur , Yamuna has a 75 km stretch in the district, which has 5600 ha mineable areas and which are administratively carved in 07 and 3.28 ha which has 213 ha area carved out in 12 mining leases. Many of these leases constitute cluster (as per notification 1st July 2016), with potential cumulative environmental impacts.

In **REIA-4 at P. No 1-5** it is mentioned that the total mine lease area is 204.03 Ha (inclusive of upcoming projects for which Public Hearing/EC is awaited) and the total annual production will be 3497448.0 cum/annum (inclusive of upcoming projects for which Public Hearing/EC is awaited). In the DSR of Banda and Hamirpur, Ken has a 143 and 21 km stretch in the districts respectively, which has almost 5921.0 ha mineable areas and which are administratively carved in 08 mining leases in Hamirpur and 37 mining lease in Banda. Many of these leases constitute cluster (as per notification 1st July 2016), with potential cumulative environmental impacts.

In **REIA-5 at P. No 1-5** it is mentioned that the total mine lease area is 279.08 Ha and the total annual production will be 46,98,000.0 cum/annum. In the DSR of Kaushambi Yamuna has 81 km stretch in the district, which has 3541 ha mineable areas and which are administratively carved in 121 mining leases.

The EAC is of the view that there are many mining lease as per DSR but all impact of all mining lease as per DSR were not considered in Regional EIA Report (1 to 5). Only

a specific portion of the river stretch was considered and mainly those mining leases were considered for which consultant has a work order from the Project Proponent.

- ii) The PP in REIA (1 to 5) mentioned that "***The proposal for REIA has been put forth during various TOR presentations and detail outline was explained and SEAC was agreed with the proposal. The standard TOR will form the basis of this REIA as no additional TORs were issued by the SEAC, Uttar Pradesh.*** The EAC was of the view that when the preparation of REIA was agreed by the SEAC U.P. then why, in the joint meeting held during November 2018, the SEAC did not accept the REIA and asked the PP to submit the individual EIA.

Member SEAC informed that REIA is not as per provision of EIA notification, therefore PPs were asked for submission of individual EIA.

Further, SEAC has not prescribed preparation of Regional EIA in the ToR issued to 31 projects out of 36 Proposals.

- iii) PP in their reports (for example at page no 1-24 of REIA-1) provided a section about carrying capacity but these reports did not bring out what would be the carrying capacity of the area, how many mines and at what would be the production capacity that can be accommodated in the given region selected for REIA (1 to 5).
- iv) The EAC observed that Structure of these Regional EIA Reports is not as per Annexure-III of EIA Notification 2006. For example in Chapter No 4 (Anticipated Environmental Impacts & Mitigation Measures) impact on the air environment was not addressed properly rather GLCs values of various pollutants are mentioned in chapter no 7 (Additional Studies which includes Public Consultation, Risk assessment and Social Impact Assessment. R&R Action Plans as per EIA Notification 2006). In addition to this, Chapter No 5 [Analysis of Alternatives (Technology & Site)] & Chapter No 9 [Environmental Cost Benefit Analysis] are required only if prescribed at scoping stage. The consultant has not quantified the impact in chapter 4 (Anticipated Environmental Impacts & Mitigation Measures). The PP in REIA-1 at page no 1-32 mentioned that "*This report is based on scientific principles and professional judgment with resultant subjective interpretation. Professional judgments expressed herein are based on the available data/comments/feedback/modifications and comments from Functional Area Experts and finally compiled by EIA Coordinator.*" But it was observed that in Chapter-12 (Disclosure of Consultants engaged) all the person whose name are mentioned there in the REIA (1 to 5) have not validated the report by appending their signature. Thus, Structure of REIA reports is not as per Appendix-III of EIA Notification 2006 and the persons associated with the preparation of REIA did not validated these reports.

- v) The EAC observed that all the mines in cluster as per cluster certificate issued by DMG, UP are not covered in these Regional EIAs.

For example, PP in REIA-1 from P 2-59 to 2-107 shows the lease wise project description but details of M/s Hardik Distributor, M/s DigiYana (4523), M/s Kuber Kamana (4497), M/s Sharc Infracon, M/s Alpin Resource (4444), M/s Ranchor Pvt Ltd (4587) and M/s MT International are not available which are as per cluster certificate submitted by DMG are falling within 500 meters of the mining lease for which this report was prepared. Thus, the cluster situation as per S.O. 141(E) dated 15.01.2016 is not strictly taken into account rather report is more focused on regional scenario.

The impact of individual mines and mines in cluster are pre-requisite for assessing the regional impact, and this is not supported in the report.

- vi) The photographic evidence submitted for air quality monitoring is same at different locations viz. AQ-4 BENDA DARIYA- REIA-1) & (AQ-14 BERI- REIA-2); (AQ-5 PATHRETA - REIA-2) & (AQ-9 Khaptiha Kalan- REIA-4); (AQ-11 Bilahpur- REIA-3) & (AQ-15 Bhurendi- REIA-4). The photograph clearly shows that at the same physical location different monitoring stations of different Regional EIA were shown. This raise question on the authenticity of actual data collection in the field.

Further, EAC observed that the data collection from 115 locations within a short span of 3 months is a challenge, generates apprehension on the data collection exercise and the reliability of data. This requires clarification from the PP, if not considered by SEAC, during assessment.

- vii) The EAC has observed there are certain deviation from the conventional method for calculating incremental air pollution load in **REIA-1, REIA -2 and REIA 4 and also mismatch in the graphical depiction**. So, there are probability that the worst case scenario may not have been considered while appraising the projects based on REIA reports and presentation.
- viii) The Committee observed that Matrix of Weighted Magnitudes for each impacting factor on each environmental component of REIA-1 [P.4-64], REIA-2 [P.4-67], REIA-3 [P.4-62], REIA-4 [P.4-64] & REIA-5 [P.4-62/63] have been considered same, even the mining lease area and production capacity (as tabulated below) is different resulting in different impact factor for associated activities. Further, the reports suggest that there is no impact on air and noise quality,

<b>Regional EIA</b>	<b>Area (in Ha)</b>	<b>Production (m3)</b>	<b>Number of Mining leases</b>
REIA-1	303.64	5456724	11 (8 B1+ 3 B2)
REIA-2	631.51	9903658	31 (21 B1 & 10 B2)

REIA-3	172.19	2667547	8 ( 5 B1+ 3 B2)
REIA-4	204.03	3497448	11 ( 9 B1 + 2 B2)
REIA-5	279.08	469800	11 ( 7 B1+ 4B2)

- ix) The EAC observed that there is no consideration reflected in the process, where SEIAA/SEAC has explore the possibility to optmize the production capacity or traffic route to contain the Level of Service in REIA-2 getting Very Poor.
- x) The Soil analysis has been done for the buffer zone and soil grain size analysis has not been done for the core zone. The EAC is of the view that it is also necessary to know the sand grain size quality and its grain size distribution in the core zone to estimate the % of sand and its quality available in the riverbed. The impact on the Soil is also due to transportation of minerals but soil sampling for the transportation route and land on the both side of the road has not specifically mentioned.
- xi) The EAC is of the view that large area was covered in Regional EIA Reports and for biological assessment more number of quadrants are required. But in the instant case PP/consultant in all the reports (REIA 1 to 5) made the biological assessment based on the 10 quadrants of 10x 10 meters. For example, in REIA-1 [P. 3-113 to 3-125] the biological assessment of the study area was done wherein Quadrant of 10 x 10 meters was formed. The total number of quadrant formed was 10 in nos. Further, thetotal mine lease area reported by PP in the regional study area-1 is 303.64 Ha and considering its buffer zone the study area will be much more than 303.64 ha. Thus, the no of quadrants formed for biological assessment is not suffienct to represent the complete study area. PP/consultant has also not shown the grid map to show the extent of area covered by these quadrants and location of quadrants.
- xii) The EAC observed that the list of flora & fauna in core & buffer zone is not duly authenticated by Forest Department.  
  
The Ministry has analyzed the KML file submitted for these mining projects and observed that projects are not falling within 10 KM of the protected area.
- xiii) It was also observed that in REIA-3 & REIA-4 presence of schedule-1 species 'Pea fowl' has been mentioned but the wildlife conservation plan for the same has not been prepared and approved from Chief Wildlife Warden.
- xiv) The Committee has observed that extraction of sand depends on replenishment of the sand in the river bed. Sand replenishment depend on level difference between pre and post monsoon survey. EC permits depth of mining as 3 meters but, the reference level has not been defined. In absence of any bench level defined in EC, the mining quantity is difficult to regulate and will be a challenge to verify the depth of mining during EC compliance

monitoring of the project (eg. M/s Disha Enterprises the max & min level of mining lease area is 117 mRL & 113 mRL respectively. The zero level/water level is mentioned as 109 m RL. It is not clear in the EC that mining will be 3 meters below the maximum RL /Minimum RL.)

xv) The EAC observed that many of the individual EIAs reports are derived from the information available in REIA report.

3. Based on the information submitted by SEIAA, Uttar Pradesh and DMG, Uttar Pradesh and discussion held during the meeting, the EAC has following observations:

a. There are certain deviations in the process adopted for grant of EC from the process stipulated in EIA Notification 2006.

(i) Public hearing has been carried out before issuance of ToR,

(ii) The clusters have not been defined properly and cumulative impact of individual projects has not been properly integrated.

(iii) The information were not made available in public domain at appropriate time in compliance to the notification provisions

(iv) Base line data collection with regard to Soil and Air could have been reviewed more articulately.

(v) Wild life conservation plan has not been prepared an submitted.

b. Significant procedural lapses to the provision of EIA notification has been observed for few projects and has been broadly classified as follows:

(i) Project where Public hearing were conducted before issuance of ToR

(ii) Projects where EIA/EMP reports are not as per Standard ToR

(iii) Projects where wild life conservation plan was required and has not been considered

(iv) Project where baseline data prior to the LoI date has been used, provided the consultant is able to satisfactory explain its compliance to MoEF&CC OM having provision of use of previous data.

(v) The projects where discrepancy in the land area has been observed in the EIA report and the area reported by DGM.

c. The EC conditions for all the projects is required to be amended by appending additional conditions arising due to either monitoring requirement (viz. fixing mining bench level) or minor scientific

precautionary oversights (viz. Soil profiling, re-validation of air pollution impact assessment)

- d. It seems from the submission and deliberation that SEIAA and SEAC have taken certain decision in hurry to comply with time period specified in EIA notification. This has resulted in lapses on procedural aspects as well as technical and scientific assessment of the reports. Therefore, capacity building of technical support system of SEIAA and SEAC is utmost required to overcome such concerns in future projects.

**(2.3). Enhancement of production capacity of Iron Ore from 4.50 million TPA (2.85 million TPA ROM iron ore + 1.65 million TPA low grade iron ore from old low grade ore stacks & dumps) to 8.06 million TPA (7.0 MTPA ROM Iron Ore + dry screening and crushing of 1.06 MTPA low grade iron ore from old dumps/stacks within lease area) and installation of wet beneficiation plant of 1.44 Million TPA (for which EC is already granted) of M/s Rungta Sons Pvt. Ltd., located at villages Sanindpur & Oraghat, Tehsil – Koira, District – Sundargarh, Odisha (MLA 147.10ha) (Proposal No: IA/OR/MIN/90577/2012; Consultant: M/s Ecomen Laboratories Pvt. Ltd.)-Consideration of EC.**

The proposal of M/s Rungta Sons Pvt. Ltd. is for enhancement of production capacity of Iron Ore from 4.50 million TPA (2.85 MTPA ROM Iron ore + 1.65 MTPA of low grade iron ore from old low grade ore stacks & dumps) to 8.06 million TPA (7.0 million TPA Iron ore (ROM) + dry screening and crushing of 1.06 million TPA low grade iron ore from old dumps/stacks within lease area) and installation of wet beneficiation plant of 1.44 million TPA for which EC is already granted. The mine is located in village(s) Sanindpur and Oraghat, Koira Tehsil, Sundargarh District, Odisha. The mine lease area is bounded by Latitude and Longitude of 21° 55' 54.91" to 21° 55' 18.2" N & 85° 17' 19.75" to 85° 18' 29.95" E in Survey of India Toposheet No.73G/5 (F45N5). The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The proposal of TOR was earlier considered by the Expert Appraisal Committee in its meeting held during September 28-29, 2018 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TOR was issued by the Ministry vide letter no. J-11015/107/2018-IA-II (M) dated 12<sup>th</sup> October 2018. The PP submitted the EIA/EMP Report online to Ministry for seeking environmental clearance.

The project proponent (PP) submitted that the total lease area is 147.10 hectares. Out of 147.10 ha, 126.324 ha is forest land and 20.776 ha is non-forest land. The lessee has obtained forest clearance for 68.135 ha i.e., 52.742 ha vide Ministry's letter no. 8-135/2003-FC dated 19.06.2006 and further for 15.393 ha (including 4.325 ha. of forest land to be maintained as safety zone) vide Ministry's letter No. 8-135/2003-FC (vol.), dated 24.10.2013. The remaining 58.189 ha

(126.324 ha-68.135 ha) of forest land and 0.174 ha of non-forest land (total 58.363 ha) was proposed for surrender by the lessee in the application for 1st renewal of mining lease for reduced area over 88.737 ha (147.10 - 58.363 ha). However, in pursuance to Section 8-A(6) of MMDR Amendment Act, 2015 the period of the original mining lease has been extended up to 05.09.2035 over the entire mining lease of 147.10 ha by execution of supplementary lease deed on 14.07.2016. So the lessee has applied online for obtaining forest clearance for the balance 58.189 ha of unbroken forest land (earlier proposed for surrender) as well as 1.417 ha of forest land for mining purpose which was earlier diverted for safety zone i.e.; total forest land to be diverted is 59.606 ha (58.189 ha + 1.417 ha) included within the existing mining lease area over 147.10 ha, vide Proposal No. FP/OR/MIN/35045/2018, dated 30.07.2018. Out of 59.606 ha forest land 57.515 ha will be used for mining and ancillary activities and 2.091 ha will be maintained as safety zone.

The PP submitted that the lease deed was granted on 06.09.1985 for 20 years which was valid up to 05.09.2005 and the PP had continued to conduct mining operation in the said lease under the deemed extension provisions of section 8 of the MMDR Act, 1957 with the permission from the Government. Now, the supplementary leased deed was executed on 14.07.2016 as per the Amended MMDR Act, 2015 and the lease validity is extended up to 05 September 2035. The PP submitted that the Modified mining plan including progressive mine closure plan over an area of 147.10 ha has been approved by IBM, Bhubaneswar vide letter no. MPM/FM/10-ORI/BHU/2018-19/850 dated 18.07.2018 which is valid up to 31.03.2020.

The PP reported that the mine was accorded environmental clearance by the Ministry, vide letter no. J-11015/206/2012-IA.II (M), dated 19.11.2013 for 2.85 MTPA of ROM Iron ore, 1.65 MTPA of low grade iron ore from old low grade ore stacks & dumps (total handling 4.5 million TPA) and installation of wet beneficiation plant of 1.44 MTPA throughput capacity. Now it is proposed to increase the production of ROM from 4.50 million TPA to total handling of 8.06 million TPA which includes 7.0 million ROM excavation from mine + dry screening and crushing of 1.06 million TPA low grade iron ore from old dumps/stacks within lease area. EC for wet beneficiation plant with throughput capacity of 1.44 MTPA has already been accorded in the environmental clearance by the Ministry, vide letter no. J-11015/206/2012-IA.II (M), dated 19.11.2013 and the same will continue. The PP further submitted that at present, the production of the mine is from excavation of Iron ore (ROM) from the mine and then dry screening and crushing of iron ore for different grade and size of ore. Low grade ore from old stacks and dumps within mine lease area are also crushed and screened to obtain different fractions of ore. The low grade ore produced from the dry crushing and screening process is upgraded through wet beneficiation unit. The PP also mentioned that there is no production of Bauxite at present and also not proposed in future. The current and proposed land use patterns are given below.

S. No.	Category	Existing Land use pattern (Ha)	Proposed Land use (Ha)
1	Area excavated	27.85	96.92
2	Over burden/dump	16.16	14.11
3	Mineral storage	2.84	4.67
4	Infrastructure	2.10	2.688
5	Roads	1.20	2.991
6	Green belt & plantation	7.0	10.465
7	Mineral processing plant	2.518	0.856
8	Mine Camp	0.60	0.5
9	Beneficiation plant & Tailing pond	5.92	13.25
10	Other purpose	0.65	0.65
11	Unutilized land	80.262	-
	<b>Total</b>	<b>147.100</b>	<b>147.100</b>

The PP submitted that the total geological reserve of iron ore is 65.17 million tonnes and the mineable reserve of iron ore is 54.997 million tonnes. Life of the mine is 8 years. The PP further submitted that the mining method will be opencast mining with mechanized drilling with 110 mm drill machine, deep hole blasting, excavation by excavator of capacity 3.2 m<sup>3</sup>/2.6 m<sup>3</sup> and stacking by loader of 1.7 m<sup>3</sup> will be done. The existing in-pit crushing & screening of iron ore will continue. During the mining Scheme period 2019-20, major production will be obtained from C-Top Quarry. The target production will be achieved by developing the benches of 6-9 m height with width upto 10-20 m. The ROM and low grade ore produced will be hauled through trucks/dumpers to dry screening & crushing plants as well as wet beneficiation plants. After processing, the finished iron ore products will be carried to the Railway sidings by trucks and loaded into Rail wagons and dispatched mainly to the steel, pelletisation, sponge, sinter plants throughout India and also to port for export. The Overburden waste materials to be generated consists of lateritic soil/ laterite/ shale/BHJ/BHQ having less than 45% Fe content. The existing over burden material lying in dumps A, B, & C is 2560646 m<sup>3</sup>/ 5121292 tonnage (MT). During 2018-19 & 2019-20 overburden waste material of 2306790 m<sup>3</sup> / 4613580 tonnage (MT) will be generated which will be dumped on waste dumps i.e Dumps 'B' and Dump 'D' within the mining lease area, which after stabilization will be rehabilitated with native plant species. Further, the overburden waste material of 6253410 m<sup>3</sup>/12506820 MT to be generated after 2019-20 till life of the mine will be backfilled in the ore exhausted quarries and will be rehabilitated by native plant species. Out of proposed production of 8.06 MTPA of iron ore in the year 2019-20 the ROM iron ore production/excavation will be 7.0 MTPA for which the total excavation for 2019-20 will be 4252579 m<sup>3</sup>/10014960 MT, out of which 1507480 m<sup>3</sup>/3014960 MT will be overburden material/waste. There will be no ore production from the overburden waste to be generated from 2018-19 till life of the mine. Approximately 1575000 m<sup>3</sup> waste

material of this mine will be dumped in the external dumps and balance 6253410 m<sup>3</sup> quantity of the waste material will be used for back filling of the exhausted quarry.

The PP submitted that the total water requirement at present is 2415 KLD (2265 KLD from Suna Nadi and 150 KLD from ground water). Total water requirement after expansion will be 3209 KLD (2959 KLD from Suna Nadi and 250 KLD from ground water). The project proponent has applied to the Department of Water Resources (DOWR), Govt. of Odisha for allocation of 2265KLD of surface water from SunaNadi for industrial use/environmental maintenance and 150 KLD of ground water for drinking and domestic use in phased manner. At present, the permission from DOWR, Govt. of Odisha for drawl of 1178 KLD of surface water from Suna Nadi and 110 KLD of ground water in 1st phase is available with the lessee. The permission for balance quantity is under process with Govt. of Odisha. The project proponent has already received NOC from Central Ground Water Authority, Ministry of Water resources, River Development and Ganga Rejuvenation, Govt. of India for withdrawal of 250 KLD of ground water. At the end of life of the mine approximately 58.21 hectare of exhausted quarry area will be back filled and developed for plantation.

The PP submitted that the mine is in operation since 1986. Presently the mine is in operation with due compliance of the order dated 02.08.2017 in CWP No. 114/2014 of Hon'ble Supreme Court. The details are as follows:

S. No.	Issues	PP submission
1	Compliance of the order dated 02.08.2017 in CWP No. 114/2014 of Hon'ble Supreme Court	The Deputy Director of Mines Koirā, Govt. of Odisha, vide Memo No 1555/Mines, dated 09.04.2018 has issued a certificate that presently the mine is working with all valid the statutory clearances and in compliance of the Hon'ble Supreme Court Order dated 02.08.2017 in WP (C )-114/ 2014.
2	Details of demand if any raised by Department of Mining & Geology, Govt. of Odisha.	Demand Note No 5064/Mines dated 02.09.2017 for Rs. 109,26,17,668/- (Rupees one hundred Nine Crore Twenty Six Lakhs Seventeen Thousand Six Hundred Sixty Eight only) was issued by Deptt. of Mines, Govt. of Odisha vide letter No. 5064/Mines, dated 02.09.2017, towards compensation under section 21(5) of MMDR Act, 1957 for production beyond EC Limit prescribed under E(P) Act, 1986.
3	Details of payment, if any made to Department of Mines & Geology, Govt. of Odisha.	Project Proponent reported that the payment of Rs. 109,26,17,668/- (Rupees One Hundred Nine Core Twenty Six Lakhs Seventeen Thousand Six Hundred Sixty Eight Only) has been made online to Deptt. of Steel & Mines, Govt. of Odisha, vide E- Challan No. 8443/94, dated 27.12.2017. E Receipt of SBI which was issued for the remittance of Rs 109,26,17,668/- in Treasury Challan Ref No. 27DDE007B0, dt. 26.12.2017.

4	Validity of mine lease	As per the MMDR Amendment Act., 2015 the mining lease of Sanindpur Iron & Bauxite Mine has been extended and valid up to 05.09.2035.
5	Status of mine whether working or not	It is a working mine.
6	Details of past production of mine since its inception, duly authenticated by Department of Mines & Geology, Govt. of Odisha.	The details of the past production figure from 1986 to 2016-17 is duly authenticated by the DDM, Koirā, has been submitted by the PP. The Committee noted that as per the Certificate provided by the Govt. of Odisha dated 09.04.2018, the PP has not enhanced the production capacity after grant of EC on 19.11.2013 and mined out the mineral within the EC capacity of 4.5 million TPA of Iron Ore. The PP has submitted an affidavit dated 16.09.2018 in compliance of Ministry's OM dated 30.05.2018 in respect of the order of Hon'ble of Supreme Court dated 02.8.2017 in W.P.(C) No. 114/2014.

The PP submitted that the baseline data have been carried during March-May, 2018 for 3 Months. PP further submitted that the Micrometeorology, Ambient air quality, Water quality, Water flow measurement, Noise level, Soil quality, Socio-economic & Biodiversity study was carried out within 10 km radius of the lease area. The ambient air quality was monitored at 8 locations, Out of 8 locations the maximum PM<sub>10</sub> found within lease (Mining area) was 85.50 µg/m<sup>3</sup> and minimum value 50.50 µg/m<sup>3</sup> was found in Sagasahi village. Similarly the maximum PM<sub>2.5</sub> found within lease (Mining area) was 55.13 µg/m<sup>3</sup> and the minimum value 25.70 µg/m<sup>3</sup> was found in Sagasahi village. Highest SO<sub>2</sub> (16.86 µg/m<sup>3</sup>) value was within lease (Mining area) and lowest SO<sub>2</sub> value (6.64 µg/m<sup>3</sup>) was in Deoghar. Similarly, the highest NO<sub>2</sub> (28.87 µg/m<sup>3</sup>) value was found in Mine Area (Within lease) and lowest NO<sub>2</sub> value (11.80 µg/m<sup>3</sup>) was recorded at Sana Indpur. The PP further submitted that the air quality modelling namely ISCST (Industrial Source Complex-Short Term ISC-3) model has been used for increased capacity production (including total excavation, number of trips etc) and the incremental values for different pollutants were assessed. Incremental values for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub> and SO<sub>2</sub> assessed through model and post project concentrations were estimated and found to be 84.76 µg/m<sup>3</sup> (Sargigarh), 56.62 µg/m<sup>3</sup> (Sargigarh), 24.89 µg/m<sup>3</sup> (Deoghar) and 8.80 µg/m<sup>3</sup> (Gharburhani) respectively. PP further submitted that post project expansion concentrations are also within prescribed limit. PP further submitted the water quality was monitored at 7 locations, the surface water (3 samples) and ground water (4 samples) samples analysis revealed that all the parameters are well within the prescribed limit of IS:2296C and IS: 10500. The noise level survey was carried out at 8 locations, the ambient noise level within Lease were found to be 64.5 & 65.2 dB(A) in day time and 60.30 & 61.20 dB(A) in night time respectively. All the values are well within the prescribed limit of 75 and 70 dB(A), for industrial area in day and night time

respectively. Similarly, at Sana Indpur, Sargigarh village, Gharburhani Village, Sagasahi village, Deoghar village and Silijora village the noise levels were also within the prescribed limit 55 dB(A)& 45 dB(A) for residential area in day and night time respectively.

The Public Hearing was conducted by State Pollution Control Board on 28.12.2018 at open ground near Sanindpur Chawk at Sanindpur Village, Tehsil Koira in Sundargarh District. The Public Hearing was chaired by the Shri Bhaskar Chandra Turuk, Additional District Magistrate, Sundargarh. About 450 participants had attended the public hearing meeting and about 235 persons has put their signature in the attendance sheet. 43 persons took part in the deliberation and 23 written statements have been received from various stake holders on the day of public hearing. The major points raised by the public are Peripheral development of the area including infrastructural development, environmental protection and pollution control, Employment generation, drinking water, Education/skill development, medical/health care facilities and promotion of Agriculture /Plantation. The lessee has submitted the detail point wise compliance with budgetary provision and time bound action plan. The Committee deliberated the issues raised during the PH and its action plan and is of the view that the action plan is not adequate.

The MoEF&CC Regional Office Bhubaneswar, vide letter no. 101-162/EPE dated 18.07.2018 has submitted the certified compliance report of earlier EC J-11015/206/2012-IA.II (M), dated 19.11.2013. The Committee has deliberated the point wise compliance of Environmental Clearance. The report, inter-alia, mentioned that the project authority has complied or are in process of complying with the conditions stipulated by the Ministry. The certain information /action plan have been sought on the following points (i) It is required to increase the green belt area by planting more plants during ongoing monsoon period and also put stress to achieve optimum plantation density i.e. 2500 plant per ha in plantation area/non-plantation area including safety zone, (ii) It is required to maintain the density of the plantation on the boundary of ML area towards Sona river and (iii) It is required to clean all the rain water harvesting structure/pit before and after the monsoon. The Committee observed that the PP not submitted the updated compliance report of earlier EC.

It is informed to the Committee that the Ministry of Mines, vide Notification No.S.O.2817 (E) dated 22nd November, 2010 had appointed a Commission of Inquiry consisting Justice M.B. Shah, retired Judge of the Supreme Court of India, for the purpose of making an inquiry in to mining of iron ore and manganese ore in contravention of the provision of various Statues and the rules and regulations issued there under, in various States including the State of Odisha. In view of Justice Shah Commission report (2013),the Ministry of Environment, Forest and Climate Change (MoEF&CC) has entrusted the work to CSIR-NEERI to conduct a Carrying Capacity Study with an objective to develop (i) a sustainable development plan for mining activities in the impact area of about 1000 sq.km., in the State of Odisha and (ii) an

environmental management plan for current as well as future developmental scenario. CSIR-NEERI has conducted the study encompassing collection of primary data for various environmental components (viz. air, noise, water, soil/land, biological and socio-economic aspects), collection and analysis of environmental quality data by different mines in the region, modelling for transport scenario and infrastructure need assessment, and meetings/workshops with different stakeholders (like Department of Steel & Mines, Directorate of Mines, IBM-HQ & Regional Office, SPCB, GSI, MoEF&CC, State Forest Dept. etc. as well as senior executives from respective mines). NEERI has submitted the report along with the recommendations. The PP has made the point-wise presentation w.r.t. the recommendations of CSIR-NEERI report on carrying capacity study which was included in the TOR condition w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha. The Committee deliberated the response submitted by PP and is of the view that the PP has not significantly addressed the CSIR-NEERI recommendations.

The PP submitted that the 2 legal cases are pending against the project. First, the 2(C) C Case No. 54/2013 has been filed in the court of SDJM, Bonai, Sundargarh, for violation of Section 15 of the Environment (Protection) Act, 1986. The said case has been stayed on 28.01.2014 by the Hon'ble High Court of Orissa in CRLMP NO. 38/2014 in Misc. Case No. 20/2014. Last hearing of this case was held on 29.06.2018 with remarks that interim order passed earlier shall continue till the next date of listing. Second, the Revision Application bearing No. 22/(65)/2012/RC-I has been filed by the lessee before the Mines Tribunal, Ministry of Mines, New Delhi against the demand notice dated 20.10.2012 U/s 21(5) of the MMDR Act, 1957, which has been disposed of by Mines Tribunal, Ministry of Mines, Govt. of India, New Delhi on 16.08.2017.

The PP submitted that presently 350 nos. of people are directly employed & 400 nos. of persons are in directly employed in the mine. After the proposed production enhancement, 444 nos. of people will get direct employment and 530 no. of persons will get indirect employment. Indirect employments will be generated through handling of material, transportation etc. which will improve social & economic standing of the people in the locality. The PP further submitted that total cost of the project is Rs. 400 Crores, funds allocated for environment management (capital) is 2.0077 Crores, funds allocated for CER is 2.3455 Crores and funds allocated for environment management plan (recurring per annum) is 0.9258 Crores.

Based on the presentation made by PP and the discussions held, the **Committee deferred the project proposal** and sought the following requisite information/clarification: -

(i) The Committee observed that the PP only submitted the application form for forest clearance over the area of 59.606 ha, and not yet received the forest clearance. The PP needs to submit the forest clearance over the area of 59.606 ha.

(ii) The Committee observed that the baseline data have been carried out during March-May, 2018 for 3 Months, and the Committee is of the view that the consultant was not having the valid accreditation during this period. The PP has submitted the accreditation certificate for the period of baseline study. However, the Committee is of the view that the certificate will be subjected to get confirmation from the QCI for further necessary action.

(iii) The Committee observed in the EIA/EMP report that the period of involvement of EIA team for preparation of EIA-EMP report is 2017-2018 but baseline study carried out after this period, i.e. March-May, 2018. PP needs to submit the valid certificate for the period of involvement of EIA team for the baseline study carried out, i.e. March-May, 2018.

(iv) The Committee observed the recommendations of NEERI report and its TOR condition, and is of the view that the PP has not significantly addressed the CSIR-NEERI recommendations and all the compliance report are generic only not a specific response. Accordingly, the revised action plan on the CSIR-NEERI recommendations needs to be submitted.

(v) The Committee has deliberated the point wise compliance of earlier Environmental Clearance. The Committee observed that the PP has not complied some of the EC conditions and also not submitted the updated compliance report of earlier EC. The PP needs to submit the updated compliance report.

(vi) The Committee observed in EIA/EMP report that present excavation and proposed excavation values is different than the earlier EC capacity and current project proposal. The PP needs to submit the correct values in revised EIA/EMP report.

(vii) The Committee observed that PP has used ISCST (Industrial Source Complex-Short Term ISC-3) air quality modeling technique, however, the Committee suggested to use the recent air quality modeling for data analysis and submit the report.

(viii) The Committee observed that the air quality modeling to be validated with existing quantity of extracted material at 4.5 MTPA and exercise to be carried out for 8.5 MTPA with 2.3 MTPA as OB or inter burden. The Committee also observed that the particle size needs to be addressed properly.

(ix) The Committee observed that the air quality monitoring location within the mine and downwind direction to be redone.

(x) The Committee observed that the reduction in requirement of water for dust suppression with advanced technology is not properly demonstrated. A separate note needs to be submitted with revised water balance.

(xi) The Committee observed that the time to time waste production with respect to total excavation is not same, so the Committee suggested that the PP needs to submit the details of total waste generation and where will it be dumped.

(xii) The Committee observed that the surface water quality report has not been compared with NWMP data in the vicinity. PP needs to submit a comparison on the surface water quality as well as ambient air quality data collected under NAAQM program.

(xiii) The Committee observed that the Reclamation and Rehabilitation plans are not properly prepared. PP needs to resubmit the revised Reclamation and Rehabilitation plans.

(xiv) The Committee observed that the conservation plan for schedule I species is not approved yet. PP needs to submit the approved conservation plan.

(xv) The Committee observed that the PP using dust binder, so the PP needs to submit details of water quantity usage and how much quantity of water consumption will be decreased.

(xvi) The Committee observed that the parking plaza is not properly done and suggested to revise the same.

(xvii) The Committee deliberated the issues raised during the PH and its action plan and is of the view that the action plan is not adequate. The Committee suggested for revising the action plan for issues raised during the PH.

**(2.4). Kama Khuja Ochre, White Earth, Laterite & Iron Ore Mine with production capacity of 1,00,000 TPA (ROM) [89,000 TPA (ROM) of Laterite & 10,000 TPA (ROM) & 1000 TPA of Iron Ore] by M/s Shiv Kumar Agarwal, located at village-Kama Khuia, Taluka-Birsinghpur, District-Satna, State-Madhya Pradesh (16.19ha) Proposal No:IA/MP/MIN82549/2017;File No: J-11015/278/2015-IA-II(M), (Consultant: Envirta Sustainable Solutions India Pvt. Ltd.)- Consideration of EC.**

The Proposal of M/s Shiv Kumar Aggarwal is for Ochre, White Earth, Laterite & Iron Ore Mine with production capacity of 1,00,000 TPA (ROM)[89,000 TPA (ROM) of Laterite & 10,000 TPA (ROM) & 1000 TPA of Iron Ore]. The mine is located at Village -Kama Khuia, Tehsil-Birsinghpur, District-Satna, Madhya Pradesh. The mining lease area lies between Latitudes & Longitudes 24°52'57.9" to 24°53'16.4" North and 81°01'3.0" to 81°01'16.6" East respectively. The proposal was considered as category 'A' as Interstate Boundary between Uttar Pradesh & Madhya Pradesh at 4.9 Km & Raipur Wild Life Sanctuary at 4.9 Km. PP required NBWL clearance.

The Proposal was earlier placed before the EAC in its meeting held during February 20-21, 2019 wherein the Committee, after detailed deliberation, **deferred** the proposals and sought the following requisite information: -

- I. Public Hearing was presided by Shri Deepak Vaidh, SDM (representative of District Collector). The Committee noted that the Public Hearing was not presided as per the provisions of EIA Notification, 2006 as the Public Hearing was presided by the officer which is below the rank of ADM. The Committee is of the view that the PP to conduct the fresh Public Hearing per the provisions of EIA Notification, 2006;
- II. PP to submit the production details since inspection of the mine and duly authenticated by the State Government of Madhya Pradesh;
- III. Since, the Raipur Wild Life Sanctuary is located at 4.9 Km, NBWL Clearance is mandatory for this project. The PP needs to submit the proof of application submitted for NBWL clearance and its present status;
- IV. Clarification w.r.t. mining activities continued without NBWL Clearance.
- V. There are Schedule I Species located in the study area. The PP needs to submit the proof of application submitted for approval of Conservation Plan for Schedule I Species and its present status;
- VI. Revised list of Plant species for plantation;
- VII. PP has not submitted questionnaires' and Annexure as per agenda note;
- VIII. CSR and environment management plan should be re-submitted;
- IX. Crystallographic study of White Earth should be given.

In view of the above, PP applied online on 11 February, 2019 with the above information accordingly, the proposal was considered in the EAC in its meeting held during on March 25-26, 2019 during the Deliberations the Committee observed that the Consultant M/s Envirta Sustainable Solutions India Pvt. Ltd is not NABET Accredited as on the day and the Consultant is said that the NABET Accredited is under process, Hence the Committee is of the view that the Consultant Cannot be Prepare EIA/EMP reports and Present the before the EAC without the valid NABET Accredited.

The Committee also observed that the PP/Consultant uploaded the incomplete information; not submitting the required documents, during the appraisal of the proposal. In view of the above, **The Committee returned the proposal in present form** and so that PP can apply along with following information.

- I. Public Hearing was presided by Shri Deepak Vaidh, SDM (representative of District Collector). The Committee noted that the Public Hearing was not presided as per the provisions of EIA Notification, 2006 as the Public Hearing was presided by the officer which is below the rank of ADM. The

- Committee is of the view that the PP to conduct the fresh Public Hearing per the provisions of EIA Notification, 2006;
- II. PP to submit the production details since inspection of the mine (mineral wise) and duly authenticated by the State Government of Madhya Pradesh;
  - III. CTO/CTE since inception of the Mine.
  - IV. Status of Forest Clearance if applicable any.
  - V. Since, the Raipur Wild Life Sanctuary is located at 4.9 Km, NBWL Clearance is mandatory for this project. The PP needs to submit the proof of application submitted for NBWL clearance and its present status;
  - VI. Clarification w.r.t. mining activities continued without NBWL Clearance.
  - VII. There are Schedule I Species located in the study area. The PP needs to submit the proof of application submitted for approval of Conservation Plan for Schedule I Species and its present status;
  - VIII. Revised list of Plant species for plantation;
  - IX. PP has not submitted questionnaires' and Annexure as per agenda note;
  - X. CSR and environment management plan should be re-submitted;
  - XI. CER as per the Ministry OM's no F.No.22-65/2017-IA.III dated 1<sup>st</sup> May, 2018
  - XII. Crystallographic study of White Earth should be given.
  - XIII. A letter from the State Government stating that the lease validity has been extended for 50 years.
  - XIV. Land use breakup of the Mine lease area
  - XV. District survey Report for Minor Minerals as per the Ministry notification S.O. 3611 (E) dated 25.07.2018.
  - XVI. PP had submitted the Incomplete EIA report, hence PP also need to submit the revised EIA/EMP report incorporating with all statutory requirements as per EIA notification, 2006.
  - XVII. PP had proposed a crusher unit and did not mention the details of the Crusher in the EIA Report; However, PP should incorporate the details of the Crusher in the EIA/EMP report.

**(2.5). Expansion of production capacity from 0.049 to 0.125 MTPA (ROM) of Munsar Manganese Mine of M/s MOIL Limited having lease area 133.78 Ha, located at Villages Munsar & others, Tehsil Ramtek, District Nagpur, Maharashtra [File No.- J-11015/246/2014-IA.II(M); Proposal No.- IA/MH/MIN/24357/2014] -Re-consideration of EC.**

The proposal is of M/s MOIL. Ltd. is for enhancement of production of manganese from 49,992 TPA to 1,25,000 TPA w.r.t. Munsar Manganese Mines (133.78 Ha). The Mine Lease Area is spread over the villages Munsar, Chargaon, Khairi, Parsoda and Kandri, Tehsil: Ramtek, Dist: Nagpur, Maharashtra. PP submitted that the environmental clearance under EIA Notification 2006 has been obtained vide

Letter No. J-11015/429/2007-IA.II (M) dated 26.12.2007. The latitude and longitude of the center is 21° 24'06"N, 79° 16'45"E. The area can be located in Survey of India Toposheet No. 55 O/7.

**2. Category of Proposal & Applicability of General Condition:** The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14<sup>th</sup> September 2006 and as per S.O. (E) 3977 dated 14.08.2018, as the mining lease area is more than 100 Ha. As the beneficiation is also involved PP also applied under Schedule 2(b) of EIA Notification 2006.

**3. Term of Reference (ToR) & its Amendment:** The Project Proponent applied for grant of Term of Reference on 02.09.2014 and submitted Form-1 & PFR. The EAC recommended the proposal for grant of TOR during September 25-26, 2014 and ToR was issued vide letter No. J-11015/429/2007-IA.II (M) dated 07.11.2014.

**4. Application for EC & its Appraisal:** The Project Proponent applied vide proposal No. IA/MH/MIN/24357/2014 for grant of EC online on 14.06.2016. The proposal was considered in the EAC Meeting held on 21-22 July, 2016. The Committee deliberated at length the information submitted by PP and **recommended** the Proposal for Environmental Clearance for Munsar opencast and underground Manganese Mine for expansion from 49,992 TPA to 1, 25,000 TPA with additional conditions and subject to submission of distance certificate from the Chief Wildlife Warden of the State Government with respect to Pench Tiger Reserve which has been observed as per KML/SHP file. PP submitted the requisite information and the proposal was again considered in the EAC meeting held during 23-24 October, 2017 wherein **deferred** the proposal for want of requisite information. As PP did not submitted the information the proposal was delisted from the Portal. PP submitted the requisite information during February, 2019 and the proposal is now placed in the EAC meeting held during 25-26 March, 2019. The information submitted by PP and observation of EAC are as follows:

- a) Past production details since 1993-94 duly authenticated by the State Mining and Geology Department and an undertaking to the effect that it shall inform the Ministry once demand is raised by State Government and adhere to the orders of the State Government, directions of the Hon'ble Supreme Court in the matter of Common Cause Vs Union of India (W.P.C.No.114/2014) or any other court of law/ Tribunal. Provide the copy of consent to operate valid prior to grant of earlier EC.**

PP submitted that the Past production details duly authenticated from Directorate of Geology and Mining, Maharashtra Nagpur. PP submitted the copies of Consent to Operate have been submitted.

**Observation of EAC:** PP submitted the past production details since 1993-94 from office of DMG, GoM, Nagpur. EAC observed that production figures provided by DMG and as reported in EIA Report and Mining Plan approved by IBM are not in agreement. The same observation was made in last EAC

meeting dt. 23.10.2017. Therefore, EAC is of the view that a clarification from the PP may be sought in this regard, with supporting document.

- b) Impacts due to drilling & blasting (elevated point sources), excavation (open pit source), stone crushing, screening (area) and transportation (line) operations should be calculated considering the total excavation quantity needs to be submitted.**

PP submitted that impact of drilling & blasting (Point) source, excavation (area source), transportation (line) source has been recalculated considering total excavation. PP submitted that the proposed production of 125000 tonnes/annum will be achieved through a combination of Opencast (05% Share-Clean ore-6250 tonnes/annum, ROM-10420 Tonnes), Underground (50% Share-ore-62500 tonnes/annum, ROM-104170 Tonnes) and Dump mining (45% Share-Clean ore-56250 tonnes/annum, ROM-267860 Tonnes).

- c) Quantity of the waste generation for the life of the mine / lease period needs to be provided in the EIA Report.**

PP submitted that The Ultimate waste generation will be 1000000 cum.

- d) List of Schedule -1 species duly authenticated by the State Forest Department and proof of submission of the wildlife conservation plan to the Chief Wildlife Warden for the schedule -1 species present in the study area.**

PP submitted that List of Flora and Fauna from Nagpur Forest Division has been obtained vide their letter dated 09.01.2019. PP submitted the list provided from the Nagpur Forest Division. PP submitted that the Conservation Plan for Wildlife has been submitted for approval to Chief Wildlife Warden, Nagpur on 18.06.2018.

5. The EAC also observed that previously EAC sought justification on the following points but PP did not provide the same. However, PP tried to address few of the points:

- i) Year-wise past production details submitted by the PP are not matching with what provided in the EIA Report.

**Comment of EAC:PP did not provide the justification for variation in production figures.**

- ii) The modelling has been carried out to predict the impacts of the Manganese Mine in Munsar with drilling & blasting (elevated point sources), excavation (open pit source), stone crushing, screening (area) and transportation (line) operations with quantity of 125000

tonnes/annum. The 125000 TPA is the quantity of the clean ore only and modelling should be done on the total excavation in order to predict the overall impact.

- iii) As per SI No 7 of ToR "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". But the quantity of the waste generation for the life of the mine / lease period is not provided.

**Observation of EAC:** PP submitted that The Ultimate waste generation will be 1000000 cum.

- iv) As per SI No 16 of ToR ". Details of flora and fauna, 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 for their conservation should be prepared in consultation with State Forest". PP submitted that Indian bison (*Bosgaurus*) is present in the buffer zone. *Bosgaurus* is a schedule-1 species according to IWPA 1972 and conservation plan submitted for approval of competent authority.
- v) As per SI No. 27 of ToR "...In case the working will intersect groundwater table, a detailed hydro geological study should be undertaken and report furnished. Necessary permission from the Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished". PP submitted that the intersection of ground water table have been occurred in both open cast & underground mine. Copy of permission from the Central Ground Water Authority for working below ground water and for pumping of ground water was not submitted by the PP.

**Observation of EAC:**The PP did not mention anything about compliance of this condition in the presentation. However, as per file record PP vides letter dated 17.10.2018 informed the Ministry that M/s MOIL Limited has obtained the NOC from Central Ground Water authority (CGWA) for abstraction of 44700 m<sup>3</sup>/year of Ground water.

- vi) As per S.L No. 9 of ToR "Details of the land for any Over Burden dump 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". PP submitted that no over burden dump outside the mine lease area is proposed. But

at per Sl. No. 4.11.4 of the EIA Report "As already elaborated earlier dumping will be done in **outside the pit limit** and in Durga Pit, which have mined out and back filling of the Durga pit has already been mentioned in the approved Mining Plan/SOM of the Munsar Lease 5.74 ha area".

**Observation of EAC:**The EAC observed that PP did not provide any justification for the above mentioned point. Further, on examining the KML file it has seems there are some activities just adjacent to mining lease area these needs to be confirmed from concerned authorities.

- vii) As per the report submitted by the Regional Office, Bhopal there are some non-compliance of the EC Conditions. PP needs to submit the proper justification for the same and an undertaking with a time frame for the compliance of the EC conditions.

**Observation of EAC:**The EAC observed that PP did not provide the requisite information on non-compliance observed by RO, MoEF&CC against the prevailing EC Conditions.

6. PP vide letter No SDGM (M)/Munsar-Expansion/2016-17/47 dated 14.06.2016 submitted an undertaking regarding ownership of the information and data submitted. The Consultant also vide letter dated 14.06.2016 submitted an undertaking that data submitted is factually correct and own the data and information submitted in the EIA Report. EC noted the submissions and opined that the non-submission of the requisite information is un-necessary delaying the process. The PP should ensure that the required information are submitted in time.

7. Based on the discussion held and document submitted before the Committee the proposal is deferred subjected to submission of following by PP:

- a. A clarification on with supporting document wrt the mismatch in the production figures given in EIA report, provided by IBM and DGM
- b. Compliance status on the EC conditions against the non-compliance observed by RO, MOEF&CC
- c. The GLC values for various pollutants on ROM handling of 382450 Tonne/annum.
- d. Report from the concern authority (viz. DGM) that no mining activity (dumping or mining) is being carried by PP beyond the lease boundary.
- e. PP to give undertaking that no mining activity in the proposed plan will be carried out beyond the lease area.
- f. Time bound action plan with budgetary details for CER, Occupational Health surveillance, EMP, Plantation and issues raised during public hearing.
- g. The production capacity of individual mines submitted by the PP needs to be supported by production schedule as per approved mining plan at the

time of grant of previous EC and subsequent scheme of mining vis a vis production achieved.

**(2.6). Amendments in EC No. J-11015/232/2005-IA. II(M), dated 25.09.2007 w.r.t. Change of mine lease area from 234.00 Ha to 223.79 Ha, by M/s Birla Corporation Limited for Bherda Limestone Mining Project, located in Village Bherda, Tehsil & District Chittorgarh, Rajasthan [File No: J-11015/232/2005-IA. II (M); Proposal No. IA/RJ/MIN/8006/2005]- Amendment in EC.**

The Proposal of M/s Birla Corporation Limited is for amendment in Environmental Clearance granted vide Lr. No. J-11015/232/2005-IA. II (M), dated 25.09.2007 w.r.t change in the mining lease area from 234.00 Ha to 223.79 Ha for Bherda Limestone Mining Project, located in Village Bherda, Tehsil & District Chittorgarh, Rajasthan.

The proposal is placed in EAC meeting held during 25-26 March, 2019. During the meeting Committee observed that previous EC was granted under Para 12 of EIA Notification 2006. But the question was whether the referred para 12 is of 1994 EC or 2006 EC. The Member Secretary informed the Committee that matter is under active consideration in Ministry.

However, it was informed to the committee that the PP vide letter dated 25.03.2019 has inform his inability to attend the meeting due to unavoidable reasons. The Committee therefore **deferred** the proposal and is of the view that as it is a brown filed project, PP is required to submit the details as per Annexure-III of agenda item for examining the proposal in light of Common Cause Order dated 02.08.2017 and S.O. 141(E) dated 14.03.2017. In addition to this, PP needs to submit the lease deed for the reduced area and mining plan for the reduced area.

**(2.7). Sandur Manganese Iron Ores mine by M/s Sandur Manganese and Iron Ores Ltd.,for Iron Ore Production from 1.60 to 3.85 MTPA with Total Excavation of 20.30 MTPA (ROM (Mn Ore & Iron Ore) + Waste + Top Soil) along with Proposed 2.0 MTPA Ore Beneficiation Plant, Down Hill Conveyor System and 1.85 MTPA Crushing & Screening Plant located at Village Deogiri, S. B. Halli and Ramgad, Tehsil Sundur, District Bellary, Karnataka (MLA: 1860.10 Ha) (Proposal No: IA/KA/MIN/90857/2019; Consultant: B.S. Envi-Tech Pvt. Ltd)- Consideration of ToR**

The proposal of M/s. Sandur Manganese and Iron Ores Ltd. is for mining of iron with expansion in production capacity from 1.60 MTPA to 3.85 MTPA with Total Excavation of 20.30 MTPA (ROM (Mn Ore & Iron Ore) + Waste + Top Soil) along with Proposed 2.0 MTPA Ore Beneficiation Plant, Down Hill Conveyor System and 1.85 MTPA Crushing & Screening Plant in the mine lease area of 1860.10 Ha located at

Village Deogiri, S. B. Halli and Ramgad, Tehsil Sundur, District Bellary, Karnataka. The mining lease area falls between the latitudes of 14°58'38.11" N - 15° 5'43.77"N and the longitude of 76°28'8.41"E - 76°39'13.93"E and covered in the Survey of India TopoSheet No. 57-A/8,57-A/12 and 57-B/9.

The project proponent (PP) submitted that the total mine lease area is 1860.10 Ha. Out of 1860.10 ha, 1612.72 ha is a reserved forest land and 247.38 ha is a revenue land. The forest clearance for 1615.64 ha (629.90 ha already broken up + 985.74 ha to be broken) was accorded by the Ministry vide letter no. 8-17/94-FC dated 14.03.2007. The PP also submitted that the original lease deed was made on 01.01.1954 and valid up to 31.12.1973. 1<sup>st</sup> renewal of lease was made on 01.01.1974 and valid upto 31.12.1993 and 2<sup>nd</sup> renewal of lease was made on 01.01.1994 and valid up to 31.12.2013. 3<sup>rd</sup> renewable was made and the mining lease was executed on 20.03.2015 for the period of 20 years from 01.01.2014.

The PP submitted that the Ministry has accorded EC to M/s. Sandur Manganese and Iron Ores Ltd., vide letter no. J-11015/96/2006-IA-II (M) dated 24.01.2007 for Sandur Manganese Ore from 0.275 MTPA to 0.55 MTPA and iron ore from 0.3 MTPA to 1.60 MTPA and increase in ML area from 877.28 ha to 1863.02 ha (ML 1179). **The EC also mentioned that the life of the manganese ore mine is 28 years and iron ore mine is 5 years.** The PP submitted that the expansion proposal comprises increase of iron ore production from 1.60 to 3.85 MTPA with manganese production retained at 0.55 MTPA. Total excavation is estimated to be about 20.30 MTPA (ROM (Mn Ore & Iron Ore) + Waste + Top Soil).

Based on the presentation made by PP, the Committee deliberated the project and observed that the validity of previous EC dated 24.01.2007 **for mining of iron ore is 5 years only and it is valid up to 23.01.2012.** Now, the PP applied for expansion of iron ore mining, so, the Committee observed that there is no iron ore as the life of the mine for iron ore is 5 year. The PP presented that the mining was suspended by Supreme Court in the year of 2011 and then revoked the earlier suspension in the year 2012 and the mining activity was resumed on 24 January 2013. However, the Committee reiterated that the validity of EC for iron ore mining is completed and Committee also observed from the past production details that the PP is carrying out the iron ore mining till date. Thus, the Committee **deferred the project proposal and the Committee is of the view that the PP carried out mining activity from 23.01.2012 to till date without valid EC. Thus, the Committee is of the view that such project may be appraised as per the provisions of the violation Notification issued by the MoEF&CC vide S.O. 804 (E) dated 14<sup>th</sup> March 2017. However, the window for submission of application under violation category is closed. The Ministry may take further necessary action on violations. EAC also suggested the Ministry to take appropriate legal opinion from the policy division.**

In addition, the Committee after detailed deliberations sought the following requisite information/clarification: -

- (i) The Committee observed that there is a discrepancy in the total excavation details. PP mentioned in the Form-I that the Total Excavation of 20.30 MTPA (ROM (Mn Ore & Iron Ore) + Waste + Top Soil), however, the Committee noted that the total excavation is 20.3199 MPTA from the pre-feasibility report and the presentation made by PP. PP needs to resubmit the total excavation details as well as the pre-feasibility report.
- (ii) The Committee observed during presentation that the original lease deed was made on 01.01.1954 and valid up to 31.12.1973 and noted that the PP has not submitted the original lease deed made on 01.01.1954.

**(2.8).Expansion in Limestone Production Capacity from 3.8 Million TPA to 7.62 Million TPA and Top Soil-0.1056 Million TPA, Over burden-0.3564 Million TPA (Total excavation: 8.0820 Million TPA) along with one existing crusher of 1200 TPH and installation of proposed crusher of 1200 TPH by M/s Shree Cement Limited (SCL) in Kodla Limestone Mine in the ML Area of 517.61 ha (ML No. 2673/2674) located at Villages: Kodla&Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka (Proposal No:IA/KA/MIN/93756/2019; Consultant:J.M. EnviroNet Pvt. Ltd.)-Consideration of ToR**

The proposal of M/s. Shree Cement Limited (SCL) is for mining of limestone with expansion in production capacity from 3.8 Million TPA to 7.62 Million MTPA and Top Soil-0.1056 Million TPA, Over Burden-0.3564 Million TPA (Total excavation :8.0820 Million TPA) along with one existing crusher of 1200 TPH and installation of proposed crusher of 1200 TPH in the ML Area of 517.61 ha (ML No. 2673/2674) located at Villages: Kodla&Benakanahalli, Taluka: Sedam, District: Kalaburagi, Karnataka. The mining lease area falls between the latitudes of 17°00'41.48402" N to 17°02'23.14289" N and the longitude of 77°12'37.9107" E to 77°14'24.3641" E on the Survey of India Toposheet No.56 G/4, 56G/8, 56H/1 & 56 H/5. As per the EIA Notification 2006, the project proposal falls under Category 'A' Project with activity of 1(a)- Mining of Minerals and 2 (b) of Mineral Beneficiation (Crusher with Wobbler).

The project proponent (PP) submitted that the total mining lease area of the project is 517.61 ha. Out of 517.61 ha, SCL owns 353.01 ha for mining purpose, 140.43 ha is government wasteland and 24.17 ha is private agriculture land. The PP submitted that initially the lease was sanctioned to M/s. SCL over an area of 551.36 ha by the Department of Mines and Geology, Government of Karnataka vide their letter no. DMG: MLS: 957 AML 07/2009-10/7024 dated 10.09.2009 for 30 years with a condition to execute the same in due course. The PP submitted that during the lease execution the State Government has executed two numbers of mining leases such as ML No. 2673 for 91.87 ha on 07.06.2014 and M L No. 2674 for 425.74 ha on

05.08.2014 (Total area 517.61 ha). Subsequently, SCL applied to Director, DMG for amalgamation of both MLA under Rule 38 of Mineral concession rules 1960 on 20.08.2014. Then, the DMG recommended the State Government for amalgamation of both lease on 18.09.2015 and the State Government granted the permission for amalgamation of both lease vide letter no. C17CMC2016 dated 04.05.2017. Finally, the PP submitted that the lease deed of amalgamated MLA has been executed over an area of 517.61 ha by Department of Mines and Geology, Government of Karnataka vide letter no. DMG/MLS/ML-2673/2674/2018-4453 dated 05.11.2018 which is valid up to 06.06.2044 (Co-terminus with Lease period whose period will expire first). The PP submitted that the mining Plan of Kodla Limestone Mine over an area of 551.36 hectares was approved by Controller of Mines (SZ) vide letter No. MP/GLB/LST-242-52 dated 14/05/2010. The modified mining plan with progressive mine closure plan over an area of 517.61 ha has also been approved by the IBM, Regional Controller of Mines, Bangalore vide letter no. 279/1043/2009/BNG dated 23.01.2019.

The PP submitted that the Ministry has accorded the environmental clearance to M/s. SCL vide letter no. J-11011/458/2008-IA-II (I) dated 19<sup>th</sup> September 2012 for Integrated Cement Project (Clinker-2.4 MTPA, Cement-4.0 MTPA, Captive Power Plant-44 MW & Captive Limestone Mine-3.8 MTPA) over an area of 551.36 ha. Later, the Ministry has amended the EC vide letter no. J-11011/458/2008-IA-II (I) dated 9<sup>th</sup> February 2018, w.r.t reduction in lease area from 551.36 ha to 517.61 ha with no change in the production capacity. The PP submitted the past production details as well as the affidavit. The affidavit mentioned that the company will comply all statutory requirements & judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in writ petition (civil) no. 114 of 2014 in the matter of common cause versus Union of India & Ors as applicable.

The PP also submitted that it is an interlinked project with integrated cement Plant; Clinker from 2.4 to 4.5 Million TPA, Cement from 4.0 to 6.0 Million TPA, Captive power plant from 2×22 MW to 2×25 MW, Waste Heat Recovery Power Generation from 20 to 35 MW, 1560 TPD Synthetic gypsum Plant, D.G Sets of 2000 KVA and Residential Colony from 400 to 535 households (buildup area 119776 sq. meter) at Village Kodla & Benakanahalli, Taluka Sedam, District Kalaburagi, Karnataka. The ToR has been obtained vide letter no. J-11011/458/2008 dated 28<sup>th</sup> March 2017.

The PP submitted that the mining is being/will be fully mechanized opencast method with maximum height and width of the working bench will be 12 m and 30.0 m respectively. The working pit slope will be kept at 45°. The PP also submitted that the strata are hard and compact, so the drilling & blasting are required to break the rock and the blasting with optimum fragmentation will be carried out to minimize the ground vibration and fly rocks. The PP submitted that the limestone will be transported to the crusher (Existing Crusher of 1200 TPH capacity and proposed Crusher of 1200 TPH, total crusher capacity 2400 TPH) with the help of dumpers

followed by it will be transported from the crusher to cement plant through covered conveyor belt.

The PP also submitted that the total water requirement for proposed project expansion will be 250 KLD which will be sourced from the ground water and Kagina River. Furthermore, the PP submitted the letter from District Ground Water Office, Kalaburagi District, Government of Karnataka (letter no. DGWOK/Borewell/2018-19/84 dated 15.06.2018) and the letter mentioned that as per column 11 of Karnataka ground water Act, 2011 and since there are no any notified areas / talukasin Kalaburagi district, it is intimated that there is no opportunity to issue permission /NOC for use of ground water in your unit existing through borewells.

The PP also mentioned that the total power requirement after expansion will be 3 MW which will be sourced from the Captive Power Plant/State Electricity Board. The PP submitted that there is a provision to establish a 25 MW Captive Solar Plant on 71.8 ha area in the southern part of the Lease area. Later, this Captive Solar Plant will be shifted to the worked out pit or any other area owned by the owner when mining activity will start in the area.

Total requirement of manpower after the expansion will be 146 Nos. The PP also submitted that the explosives required for blasting will be stored in 4 nos. of explosive magazine for which SCL has applied for license to Petroleum & Explosive Safety Organization (PESO).

The PP submitted that as per the approved mining plan, general ground level of area is 507 mRL, ultimate pit depth will be 458 mRL and water table will vary from 55 to 60 m bgl (452 mRL to 447 m RL) in pre-monsoon and 50 to 55 m bgl (457 mRL to 452 m RL) in post-monsoon season. Thus, mining operation will not intersect the water table at any stage of operation. The PP also submitted that at the conceptual stage total excavated area will be 494.17 ha, out of which 334.34 ha area will be converted into water body and 159.83 ha area will be backfilled by waste generated. Greenbelt/Plantation will be carried out in 171 ha (159.83 ha is backfilled area and 11.17 ha is virgin area along the mine lease boundary). The PP also submitted that the village road is passing through the Lease area and a new alternative road along the northern part of the mining Lease area has been made for the diversion of existing village road passing through the mining Lease area.

The PP submitted that no forest land is involved in the project and no National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors exist within 10 km radius of the study area. However, One Reserved Forest (Yadgir Reserve Forest) exist at ~ 9.1 Km in the SW direction and Kamlavati Nadi exist at ~7.5 Km in East Direction from the mine site.

The PP submitted that the total cost of the project is Rs. 27.31 crores, the Capital Cost for Environment Protection is Rs. 0.5 crores with Recurring cost of Rs.

0.05 crores per annum. The PP also submitted that no litigation is pending against the project proposal.

Based on the presentation made by PP and the discussion held, the **Committee recommends to prescribe the standard ToR along with the following specific conditions**

(i) The Committee observed that the plantation was very less and suggested to increase the plantation particularly along the periphery of the mine lease area.

(ii) The Committee suggested to install and implement the Drip Irrigation system.

(iii) The Committee observed the PP needs to submit all required clearance certificates for project proposal including the license for storing explosives from Petroleum & Explosive Safety Organization (PESO).

**(2.9). Karigatta Limestone Mine with production of 1.0 MTPA limestone by M/s. Cement Corporation of India Ltd., in the mine lease area of 119.64 ha (Survey No:489, ML No.:2015), located at Village Sedam, Tehsil Sedam, District Gulbarga, Karnataka (Proposal No: IA/KA/MIN/77229/2018; Consultant:Global Management and Engineering Consultants International)-Re-consideration of ToR.**

The proposal of M/s. Cement Corporation of India Ltd., is for mining of limestone in Karigatta Limestone mine with production capacity of 1.0 MTPA limestone in the mine lease area of 119.64 ha (Survey No:489, ML No.:2015) located at Village Sedam, Tehsil Sedam, District Gulbarga, Karnataka. The project proposal falls under Category 'A' Project with activity of 1(a) – Mining of Minerals.

The PP submitted that the total mine lease area 119.64 ha which is a Government waste land. The proposed project lies within the interstate boundary of Telangana and Karnataka, which is about 3.6 Km towards NE from the mine site. The PP also submitted that the lease was granted for a period of 20 years having validity up to 27.06.1996. The application for renewal of mining lease was submitted on 28.06.1995 and the Government of Karnataka has extended the lease period (ML: 2015) up to 31.03.2020 vide letter no. CI 133 CMC 2017 dated 27.12.2017. The PP also submitted that the total mineable reserves are 84680000 Tones and the life of mine is 85 years approximately.

The PP submitted that the mining will be carried out by open-cast semi-mechanized method by adopting drilling and blasting. Drilling will be done by Jack hammer using 1.5m with effective drill roads with 32mm diameter bits. The maximum bench height will be 6 meters and width will be more than height. The total water requirement will be 10.0 KLD which will be met from the tanker water supply. The PP also submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping.

The PP submitted that no National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors, etc., are present within 10 km radius. However, the Kagna River is 10 km in North direction of the lease; Kamlavati River is 3.0 km in SN direction from the lease area and Yadgir Forest is 12.0 Km in SSE direction from the lease area. The PP also submitted that total cost of the project is Rs. 360 lakhs and cost for Environmental Protection Measures is Rs.2.0 lakhs, manpower requirement will be 44 and no litigation is pending against the project proposal.

The project proposal was placed before EAC in its meeting held during October 23-24, 2018 and the Committee did not consider the proposal as the project was only represented by a mines manager and an associate. Afterwards, the proposal was placed again before EAC in its meeting held during 29 November 2018 and deferred the proposal and the Committee asked to submit certain requisite information.

The PP submitted the requisite information and the Committee deliberated the same in this meeting. Based on the presentation made by PP and the discussion held, the **Committee recommend to prescribe the Standard TOR with subjected to submission of following requisite information.**

(i) Certificate from State Mines and Geology Department that there is no mining activity after the 1998-1999.

(ii) PP submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping. Thus, the Committee noted that the PP needs to submit the certificate from State Mines and Geology Department that how many mine lease are there around this mine and their distance.

(ii) The Committee also observed that the project coordinates and toposheet number for this project is identical with other two projects of this same project proponent. PP needs to submit the correct project coordinates.

**(2.10).Karigatta Limestone Mine with production of 1.0 MTPA limestone by M/s. Cement Corporation of India Ltd., in the mine lease area of 68.91 ha (Survey No. 146, 147, 152, 153, 154, 155, 156, 161, and 483; ML No.:1880), located at Villages Sedam&Madkal, Tehsil Sedam, District Gulbarga, Karnataka(Proposal No: IA/KA/MIN/77548/2018; Consultant:Global Management and Engineering Consultants International)-Re-consideration of ToR**

The proposal of M/s. Cement Corporation of India Ltd. is for mining of limestone in Karigatta Limestone Mine with production capacity of 1.0 MTPA limestone in the mine lease area of 68.91 ha (Survey No. 146, 147, 152, 153, 154, 155, 156, 161, and 483; ML No.:1880), located at Villages Sedam&Madkal, Tehsil Sedam, District Gulbarga, Karnataka. The project proposal falls under Category 'A' Project and it attracts the general conditions such as the project lies within the

interstate boundary of Telangana and Karnataka, which is about 4.2 Km towards ENE from the minesite.

The PP submitted that the total mine lease area 68.91 ha which is a Government waste land. The Government of Karnataka has extended the lease period (ML No.: 1880) up to 03.04.2033 vide letter no. CI 132 CMC 2017 dated 27.12.2017. The PP also submitted that the total mineable reserves are 33690000 Tones and the life of mine is 34 years approximately.

The PP submitted that the mine operation will be opencast semi-mechanized method and the produced limestone will be transported to cement plant through roads. The maximum bench height will be 6 meters and width will be more than height. The total water requirement will be 10.0 KLD which will be met through tanker supply from nearby villages. The PP also submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping.

The PP submitted that the no National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors, etc., are present within 10 km radius. However, the Kagna River is 10 km in N direction of the lease; Kamlavati River is 3.0 km in SN direction from the lease area and Yadgir Forest is 12.0 Km in SSE direction from the lease area. The PP also submitted that total cost of the project is Rs. 360 lakhs and cost for Environmental Protection Measures is Rs.2.0 lakhs, total employment potential in the mine is 52 and no litigation is pending against the project proposal.

The project proposal was placed before EAC in its meeting held during October 23-24, 2018 and the Committee did not consider the proposal as project was only represented by a mines manager and an associate. Afterwards, the proposal was placed again before EAC in its meeting held during 29 November 2018 and deferred the proposal and the Committee asked to submit certain requisite information.

The PP submitted the requisite information and the Committee deliberated the same in this meeting. Based on the presentation made by PP and the discussion held, the **Committee prescribed the Standard TOR with subjected to submission of following requisite information.**

(i) Certificate from State Mines and Geology Department that there is no mining activity after the 1998-1999.

(ii) PP submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping. Thus, the Committee noted that the PP needs to submit the certificate from State Mines and Geology Department that how many mine lease are there around this mine and their distance.

(iii) The Committee also observed that the project coordinates and toposheet number for this project is identical with other two projects of this same project proponent. PP needs to submit the correct project coordinates.

**(2.11). Karigatta Limestone Mine by M/s Cement Corporation of India Ltd., with production capacity of 1.0 MTPA in the mine lease area of 52.81 Ha (Survey No. 66, 65, 485, 486, 487, 488 and 500; ML No:1339), located at Villages Sedam and Injepall, Tehsil Sedam, District Gulbaraga, Karnataka (Proposal No.:IA/KA/MIN/77258/2018; Consultant: Global Management and Engineering Consultants International)-Re-consideration of ToR**

The proposal of M/s. Cement Corporation of India Ltd., is for mining of limestone in Karigatta Limestone Mine with production capacity of 1.0 MTPA limestone in the mine lease area of 52.81 Ha (Survey No. 66, 65, 485, 486, 487, 488 and 500; ML No: 1339), located at Villages Sedam & Injepall, Tehsil Sedam, District Gulbaraga, Karnataka. The project proposal falls under Category 'A' Project and it attracts the general conditions such as the project lies within the interstate boundary of Telangana and Karnataka, which is about 4.7 Km towards NE from the mine site.

The PP submitted that the total mine lease area 52.81 Ha, which is a private waste land. The mining lease was granted for a period of 20 years having validity up to 27.06.1996. The Government of Karnataka has extended the lease period (ML No.: 1339) up to 28.06.2026 vide letter no. CI 134 CMC 2017 dated 27.12.2017. The PP also submitted that the total mineable reserves are 16.0 Million Tones and the life of mine is 20 years.

The PP submitted that mining will be carried out by open-cast mechanized method by adopting DTH drilling and blasting. The bench height will be 6 meters and width will be more than height. The total water requirement will be 10.0 KLD which will be met through tanker supply from nearby villages. The PP also submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping.

The PP submitted that there are no National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors, etc., are present within 10 km radius. However, the Kagna River is flowing about 8-10 kms north direction of the lease; Kamlavati River flows about 3.0 km in south to north direction from the lease area and Yadgir Forest is 12.0 Km in SSE direction from the lease area. The PP also submitted that total cost of the project is Rs. 360 lakhs and cost for Environmental Protection Measures is Rs. 2.0 lakhs, total employment potential in the mine is 52 and no litigation is pending against the project proposal.

The project proposal was placed before EAC in its meeting held during October 23-24, 2018 and the Committee did not consider the proposal as project was only represented by a mines manager and an associate. Afterwards, the proposal was placed again before EAC in its meeting held during 29 November 2018 and deferred the proposal and the Committee asked to submit certain requisite information.

The PP submitted the requisite information and the Committee deliberated the same in this meeting. Based on the presentation made by PP and the discussion held,

the **Committee prescribed the Standard TOR with subjected to submission of following requisite information.**

(i) Certificate from State Mines and Geology Department that there is no mining activity after the 1998-1999.

(ii) PP submitted that there are other mining projects located near the mine site and there will be a significant cumulative effect due to transportation of minerals, excavation and waste dumping. Thus, the Committee noted that the PP needs to submit the certificate from State Mines and Geology Department that how many mine lease are there around this mine and their distance.

(iii) The Committee also observed that the project coordinates and toposheet number for this project is identical with other two projects of this same project proponent. PP needs to submit the correct project coordinates.

**(2.12).Karadikolla Iron Ore Mine (ML No. 2546) of M/s Chowgule and Company Private Ltd. with proposed production capacity of 0.38 MTPA (ROM) over an area of 103.68 ha located at Bavihalli Village of Sandur Taluka, Bellary District, Karnataka (Proposal No. IA/KA/MIN/75923/2018; Consultant: Mineral Engineering Services) –Re-consideration of ToR**

The proposal of M/s Chowgule and Company Private Ltd. is for mining of 0.38 MTPA of Iron Ore in a mine lease area of 103.68 ha (ML No. 2546) located at Village Bavihalli, Taluka Sandur, Bellary District, Karnataka. The Geographical location of Karadikolla iron ore mine is between the latitude of N 15°08'50.7" to N 15°09'49.8" and the longitudes of E 76°29'59.6" to E 76°31'0.7" and falling within the Survey of India Toposheet No. D 43 E8 & D43 E12.

The project proponent (PP) submitted that the Mining Lease No. 130 of 23.09.1963 for iron ore over an area of 459.73 Hain Bavihalli Village of Sandur Taluka, Bellary District, was initially granted in favour of M/s. Laxmi Narayan Mining Company of Bangalore for a period of 20 years and executed by them on 23.09.1963. Subsequently, the Mining Lease was transferred to Chowgule and Company Private Limited (CCPL) in the year 1968 by the Government of Karnataka vide Notification No. CI 46 EM068 dated 03.05.1968.

The PP submitted **that the mining lease No. 2546 (old no. 2419) for the area of 100 ha** has been executed with Director, Department of Mines and Geology, Bangalore for the period from 2003 to 2023 on 19<sup>th</sup> April 2007 and the lease is valid till 22.09.2023. The PP also submitted that the entire lease area is a forest land and the Ministry has accorded **Forest Clearance under section 2 of Forest (Conservation) Act 1980 vide their letter no. 8-21/2004-FC dated 14.01.2005 for 100 ha only. However, in Form I the PP mentioned that the total lease area 103.68 ha. Therefore, there is a discrepancy in the mine lease area.** The Central Empowered Committee accorded its concurrence to R&R Plan vide

letter No. 2-61/CEC/SC/2012 dated 05.11.2012 for production capacity of 0.38 Million tonnes per annum. The Karnataka State Pollution Control Board, granted "Consent to Operate" vide Combined Consent Order No.AW-305707 dated 04.04.2018, valid till 31.03.2023. The Indian Bureau of Mines, Government of India, Bangalore approved Review and Updation of Mining Plan including Progressive Mine Closure Plan vide their letter no.279/327/92/BNG/2299 dated 11.12.2017 valid till 31.03.2023.

The Ministry accorded Environmental Clearance vide letter No.J-11015/138/2005. IA.II (M) dated 17.02.2006 under EIA Notification, 1994. 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 7<sup>th</sup> February, 2018 in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation versus M/s Sesa Sterlite Ltd., & 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 PP has obtained the EC under EIA Notification 1994 and now applied for EC for under the EIA Notification, 2006 with proposed production capacity of 0.38 MTPA. 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.

The proposal was placed in the EAC meeting held during 15<sup>th</sup>-16<sup>th</sup> November, 2018. The Committee noted that as per the notification dated 06.04.2018; the Project Proponent applied for ToR before 5<sup>th</sup> October 2018 and submitted the Form-1 and Pre-Feasibility Report. After due deliberation based on the documents submitted by the project proponent the committee noted that the mine lease area was falling at about 8 Km from the boundary of the Daroji Bear Sanctuary. The committee noted that the draft Eco-sensitive zone notification for Daroji Bear Sanctuary was issued first on 22 September, 2015 and again on 18<sup>th</sup> September, 2018. **The Eco-sensitive zone notification for Daroji Bear Sanctuary was not yet finalized and therefore the project proponent had violated the provision of the Wildlife Protection Act as PP was mining till date without NBWL clearance.** The committee also noted that the Hon'ble Supreme Court had brought the NBWL clearances also within the ambit of the Common Cause Judgement dated 02.08.2017.

After due deliberation the committee deferred the proposal and requested the Ministry to first examine the project for suitable action on violation. As the committee requested to examine the project for suitable action on violation, the Ministry has issued a show cause notice to PP vide letter dated 12<sup>th</sup> December 2018 for violating the provision of the Wildlife Protection Act and mining till date without NBWL clearance. The PP submitted the reply to show cause notice on 27<sup>th</sup> December, 2018 and proposal was placed again before EAC in its meeting held during January 22-23, 2019 and the PP did not attend the meeting.

The proposal was placed again in this EAC meeting. PP made the presentation and presented the reply to show cause notice. The PP mentioned that the "the total area of the Daroji Bear Sanctuary has undergone change in the year 2008 with the Government of Karnataka declared Daroji Bear Sanctuary adding an area of 26.85 sq.kms to the same making the total area 82.72 sq.kms. Initially, the total area was only 55.873 sq.kms. With the change of the total size of sanctuary, the boundaries are bound to change". In addition, the PP also mentioned that the "draft ESZ notification dated 22.09.2015 and 18.09.2018 for the Daroji Bear Sanctuary contemplate an eco-sensitive zone of a maximum of 4.7 kms from the boundary of the sanctuary". **The Committee deliberated the reply and observed that these are draft notification only, so, as on today the mine lease area was falling at about 8 Km from the boundary of the Daroji Bear Sanctuary and therefore the project proponent had violated the provision of the Wildlife Protection Act as PP was mining till date without NBWL clearance.**

Based on the discussion held, the **Committee prescribed the Standard TOR with subject to submission of requisite document.**

**In addition, the Committee is of the view that the Ministry needs to ascertain again on the violation and also take the legal opinion on this matter before granting TOR.**

**The Committee further observed that the entire mine lease area (103.68 ha) is forest land, however, the PP have the Forest Clearance for 100 ha only and the mine lease document also for 100 ha only. The Committee is also of the view that the PP needs to submit the clarification regarding total mine lease area of the project proposal.**

**(2.13). Mining of 0.05 MTPA of Limestone & Dolomite from Bahilampur Limestone & Dolomite Mine (47.12 Ha) of M/s Rajakhjanderao Deshmukh located at Village-Bahilampur, Tehsil Zarijamni, District-Yavatamal, Maharashtra (File No: J-11015/284/2013-IA. II(M); Proposal No IA/MH/MIN/19384/2013; Consultant: Srushti Seva Pvt. Ltd.)- Consideration of EC.**

The proposal of M/s Rajakhjanderao Deshmukh is for production of 50000 TPA of Limestone & Dolomite from Bahilampur Limestone & Dolomite Mine (47.12 Ha) of M/s Rajakhjanderao Deshmukh located at Village-Bahilampur, Tehsil Zarijamni, District-Yavatamal, Maharashtra. The mine lease area falls in the Survey of India

Topo-Sheet No. 56 I/13. The latitudes and longitudes of the Mine lease fall between Latitude: - 19° 46"08.5" to 19° 46"47.5" N and Longitude: - 78° 49"38.6" to 78° 50"01.2"E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B1", Project as the mining lease area is less than 100 Ha. Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case the Project is located at 1.5 KM from Maharashtra-Telangana States inter-state boundary and thus the project was considered as Category 'A' project in the Ministry.

3. The Project Proponent applied for grant of Term of Reference on 7.08.2013 and submitted Form-1 & PFR. The EAC recommended the proposal for grant of TOR during 15-16 January, 2015 and ToR was issued vide letter No. J-11015/284/2013-IA.II (M) dated 13.02.2015. This ToR was valid till 12.02.2018 and PP applied for extension of validity of ToR on 8.10.2018 and proposal for extension of ToR was considered in EAC meeting held on 15-16 November 2018 wherein EAC recommended the extension of ToR for further one year i.e. till 12.02.2019. The extension in ToR was issued vide letter of even no dated 28.11.2018.

4. The Project Proponent applied in Form-II vide proposal No. IA/MH/MIN/19384/2013 for grant of EC online on 06.02.2019 i.e. within validity of ToR and submitted the EIA Report after conducting the Public Hearing. The proposal is now placed in EAC Meeting held on 25-26 March, 2019. The information submitted by PP and observation of the EAC are as follows:

5. The Project Proponent submitted Lr No. MMN-1008/C.R. 2486 /Ind-9 dated 11.01.2017 issued by Industries, Energy and Labour Department, Govt of Maharashtra for grant of mining lease for Limestone & Dolomite over an area of 47.12 Ha for 50 Years.

6. The PP submitted that the Mining plan Progressive Mine Closure Plan was approved by Indian Bureau of Mines, Nagpur Regional Office vide Lr No YTL/LST-DOL/MPLN-1023/NGP dated 15.09.2010

7. The PP submitted that the method of mining will be opencast with drilling and blasting. The bench height will be 6.0 meters. The drilling is with 34mm jack hammer drill. Blasting is by using nonel technology. Loading is by 1.5 m<sup>3</sup> excavator and transportation is through dumpers to dump yard and stockyard. The material after

sorting in stockyard will be transported to market as per demand. The PP submitted that as per current level of exploration the limestone & dolomite is available till 15-meter depth. Thus, the mining will be carried out by forming two benches of 6-meter height. The PP submitted that the soil layer is very thin up to 0.3 meters. The topsoil will be removed and stacked separately and will be used for plantation.

8. PP submitted that as per UNFC Code (111) total reserve is 10,590,900 Tonne of Limestone & 7,292,925 Tonne of Dolomite. The Total mineable reserves of Limestone & Dolomite will be 16.0 Million Tonne. The life of mine at the rate of production of 50000 Tonne/annum (ROM) will be 30 Years. Out of 50000 (ROM) 90% is graded ore [45000] and 10% waste [5000].

9. The PP submitted that the total requirement of the water for the project shall be 23 KLD (15 KLD for dust suppression; 5 KLD for plantation and 3 KLD for domestic purpose). The PP has already applied to CGWA vide its application dated 14.01.2019 along with Hydrogeological Study Report and Rain Water Harvesting Plan. The PP has submitted that the ground water level in buffer zone is 4.1 to 11.3 bgl in pre-monsoon and 1.0 to 4.5 bgl in post monsoon. The PP has also proposed one bore well within the mining lease area. The PP during the meeting confirmed that there will be intersection of ground water table after 10 meters. The PP in its presentation mentioned that the Hydrogeological study reveal the intersection of groundwater not encountered in mine at the initial depth of 1Q m below ground level i.e. upto 218 m in first five years of working. Intersection of ground water is anticipated below 218 m. Hydrogeological Studies has been carried out. The average Mine inflow is estimated to be 317.8 m<sup>3</sup>/day and the radius of influence is estimated to be 189 m from the mine floor.

**Observation of EAC:** i) The committee observed that Permission from CGWA is still awaited and thus provision of Ministry's O.M No 21-103/2015-IA.III dated 2.11.2018 regarding terms of reference related to ground water withdrawal wherein it has mentioned that following ToR shall be invariably incorporated to address the issues while prescribing ToRs for various developmental projects:

a) In the projects where ground water is proposed as water source, the project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA), as the case may be, for obtaining No Objection Certificate (NOC), if applicable, the MoEF&CC/SEAC may ensure that such application has been made.

b) Approval/permission of CGWA/SGWA shall be obtained before drawing ground water for the project activities. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

ii) In the Form-2 PP has uploaded the cover letter but PP was required to upload the permission letter. PP also mentioned the permitted quantity as 23 KLD. But the same is yet to be approved.

iii) The Committee observed that PP has not submitted the copy of Hydrogeological Study Report.

10. The PP submitted that it is planned to carryout afforestation in 13.62 Ha within the mining lease area and 5 Ha outside the mining lease area. Plantation within the mining lease will be carried out within the 7.5 m safety zone and undisturbed area. Plantation outside the mining lease area will be carried out at common places like school, anganwadi, hospitals, Grampanchayat, village roads, periphery of playgrounds and any other open land with prior consent from the local governing body. It is also proposed to nourish and maintain the saplings till they attain maturity and are self-sustained. The plantation will be protected from grazing and illicit felling. The PP submitted during the next 20 years the total 27000 saplings will be planted within the mining lease and 10000 saplings outside the mining lease. The type of species will be selected from the local tree, herbs, shrubs & grasses species of local abundance will be selected however and expert guidance of Forest Department shall be sought. The Earmarked a Budget of Rs 3.0 Lakh (Capital) & Rs 3.0 Lakh (Recurring) for plantation.

**Observation of EAC:**The Committee is of the view thatthe PP should submit the detailed plan in tabular format (year-wise for 30 years) 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, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5 year interval for 30 years) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years.

11. The PP reported that the there is no forest land involved in the proposed mine lease area. There are No National Parks, Sanctuaries, Biosphere Reserves Wildlife Corridors, Tiger/Elephant Reserves/Critically Polluted areas are falling within 10 Km of the study area.

**Observation of EAC:**The PP did not submit a letter from State Forest Department Regarding involvement of Forest Land and distance of the protected area. The mining lease is adjacent to unnamed forest. The KML file was analysed on DSS and it has observed that there is no protected area within 10 KM of the project site but some part of the mining lease is falling within the forest area compartment no C-27. Thus, a certificate from the State Forest Department regarding involvement of Forest Land needs to be submitted along with the protection or safety distance needs to be left between the Common Boundary of mines and un-named forest.

12. The PP submitted that there is no Schedule-1 species present in the Study Area. However, there are Schedule-II species viz. Jungle cat, Jackal, Wild Dog, Indian Fox, Monkey, Cobra, Common rat snake are available in the Study Area.

**Observation of EAC:**The Committee observed that the list of Schedule-1 Species is not authenticated by Chief Wildlife Warden/State Forest Department.

13. The PP submitted the District Survey Report.

**Observation of EAC:**The Committee observed that the District Survey Report is not approved by the District Administration and nor uploaded on the website. The Committee also observed that PP has not submitted a Cluster Certificate from DMG regarding availability of other mining lease within 500 meters of the said mining lease.

14. The baseline environmental quality data for various components of environment, viz. Air, Noise, Water, Land and Socio-economic were generated during March 2016 to May 2016 in the study area covering 10 km around the Mine and are within the permissible limit.

**Observation of EAC:**PP has not mentioned the emission rate from different sources viz. drilling, loading, transportation etc. and after considering all the factors calculate the GLC for various pollutants in worst case scenario for total excavation. Proposed road will be pucaa/tar road that needs to be defined. Further, the cost of construction of Black Topped road and its maintenance needs to be submitted along with time line. Further, impact on both side of the road needs to be ascertained along with protective measure to be placed. original test reports need to be submitted. In addition to this PP needs to verify the annexure attached to the EIA Report and provide the copy of all annexures. The PP also needs to define the study to be carried out to ascertain the crop damage and compensation to be paid to the farmers.

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

16. Public hearing for the project was conducted on 16.05.2017 (11:30) at Project site village Bahilampur, Thasil Zarijamni, Dist Yavatmal under the chairmanship of Shri Sachindra Pratap Singh, District Magistrate, Yavatmal. The advertisement for public hearing was published in '*Lok Satta*' & *English News Paper*. The major issues raised by the local people inter alia related to pollution due to mining operations, hindrance in movement of villagers and animals, grazing of animals, village is close to the mining site, dust problem, dust related health issues, agricultural fields are close to mining lease, compensation for crop damage, medical facilities, financial support to 10 poor students, employment etc. The PP committed that due care will be taken for agricultural fields, covering the trucks with tarpaulin during transportation, local people and youth will be appointed as per need, separate route for transportation away from the village, installation of dust suppression system, grass fields will be developed for the fodder of domestic animals with the help of SHG, only 4.224 ha of private land is required for this project which will be obtained through negotiations, damage due to pollution will be compensated after discussion with local people and competent authority, periodical medical camp will be setup for the villagers, pre & post medical status of the project area, ten local students who

are below poverty line will be extended financial support for education each year. The PP proposed a Budget of Rs 5.0 Lakh (Capital) for Environmental Cost and Rs 1.0 Lakh (recurring) for pollution control, Rs 2.0 Lakh has been earmarked for social development activities, Rs 5.0 Lakh (recurring) for education, vocational training, SHG support, medical facilities, maintenance of village road, infrastructure development etc.

**Comment of EAC:** The PP has proposed for the Grazing land for the animals but amount and time line for the development is not mentioned by PP. The PP proposed to construct the tar road but budget and timeline for the same is not submitted. The PP did not provide the date of advertisement for PH, steps to be taken for crop damage compensation which also include scientific studies for the same.

17. The PP submitted that the as no (R & R) is involved in this project this does not apply to this case.

18. PP submitted that budget earmarked for Socio-Economic Environment plan shall be ₹ 5Lakh (capital) & ₹ 5Lakh (recurring) which includes i) ₹ 2.00 Lakh (capital) & ₹1.00 Lakh (recurring) for Education (Renovation of Anganwadi Centre, donation to Anganwadi center and Primary School renovation) ii) ₹0.50 Lakh (recurring) for Education (Distribution of Books and uniforms), iii) ₹ 0.50 Lakh (recurring) for Vocational Training to unemployed youth, iv) ₹ 0.50 Lakh (recurring) for SHG support (women SHG), v) ₹ 1 Lakh (capital) for Provision of Solar Lamps, vi) ₹ 0.50 Lakh (recurring) for Medical facility (Regular Health Camps), vii) ₹ 1 Lakh (recurring) for Maintenance of Village Road, viii) ₹ 2 Lakh (capital) & ₹ 1 Lakh (recurring) Infrastructure development (support to civic amenities).

**Observation of EAC:** The PP needs to provide the timeline for implementation of Socio Economic Plan. The PP needs to define whether the Corporate Environment Responsibility (CER) is the same as socio economic plan or it is different.

19. The Project Proponent has earmarked a budget of ₹ 20.00 Lakh for Environmental Protection which is included in mining cost. PP submitted that out of total budget of Environmental Protection i) ₹ 9.5 Lakh shall be used under water pollution control which includes ₹ 2 Lakh for De-silting tanks, garland drain, ₹ 2.5 Lakh for Boulder check plug, ₹ 2 Lakh for Septic tanks/soak pits & ₹ 3 Lakh Mine water sedimentation pond, ii) ₹ 1.00 Lakh shall be used under noise control by providing personal protection equipment, iii) ₹ 1.5 Lakh shall be used under pollution monitoring for piezometer for hydrogeological monitoring, iv) ₹ 4.0 Lakh shall be used under conservation of natural resources which includes ₹ 1 Lakh for Solar lightening arrangement, ₹ 1 Lakh for Rainwater harvesting, ₹ 2 Lakh for Soil preservation (biological reclamation), v) ₹ 3.0 Lakh shall be used under Reclamation, (internal dump) biological reclamation, jute mesh, plantation, vii) ₹ 1.0 Lakh shall be used under occupational health for personnel protection equipment (goggles, gloves, helmets, dust mask, safety boots), viii) ₹ 1.0 Lakh shall be used under miscellaneous for awareness programme. The Project Proponent has earmarked ₹ 8.0 Lakh recurring cost of environmental protection measures which includes ₹ 1.0 Lakh for Pollution control (manpower, consumables), ₹ 2.0 Lakh for Pollution monitoring, ₹ 1.0 Lakh for Occupational health, ₹ 2.0 Lakh for Green belt, ₹ 2.0 Lakh for Other EIA/EMP, fencing, regeneration & maintenance of safety zone, expert advice, etc.

**Comment of PD:** In the response of ToR Compliance Point no. 40 PP has mentioned that "environmental cost is estimated to be Rs. 28 lacs" but in the EIA report PP has submitted that the total capital cost of the same will be Rs. 20 Lakhs, clarification regarding the same needs to be submitted. Thus PP needs to examine the cost of EMP and submit the detailed time bound action plan for implementation of EMP with budgetary provisions. The Committee also observed that PP has not submitted the activity wise time bound action plan for occupational health surveillance and same needs to be submitted. In addition to this PP has proposed for the construction of road and budget and time line for its construction and maintenance needs to be submitted. In addition to this PP should provide the composition of Environmental Management Cell with number of person to be engaged, their designation and tentative amount for the payment of the same.

20. The Project Proponent previously submitted that the total project cost shall be ₹ 85.05 Crore and around 35 labours will be required for this mine. Managerial staff – consisting of Mines Manager (Environment), Mining Engineers, Geologist, mining foreman, mining mate and safety engineer (Silviculturist) will also be deputed.

21. The PP and Consultant submitted an undertaking that the data provided in this report is factually correct and PP & Consultant own the content and information and data. The PP has also provided the list of experts engaged in the preparation of EIA/EMP.

**Observation of Committee:** The Committee is of the view that consultant should submit the proof validity of the accreditation. The PP should go through the standard EC Conditions and if agreed submit an undertaking to comply with all the standard conditions and additional conditions that will be prescribed by EAC in case EC will be granted to this project.

22. The proposal is a **green field project** and does not requires verification in pursuant to Hon'ble Supreme Court order dated 02.08.2017 in the matter of Common Cause and S.O 804(E) dated 14.03.2017. The PP needs to submit an undertaking by the way of an affidavit to comply with the Common Cause Order and other statutory requirements in pursuant to O.M. dated 03.05.2018.

23. Based on the discussion held and documents submitted by the PP, the Committee **deferred** the proposal and is of the view that proposal may be considered after submission of following information as an addendum to EIA.

- 1) PP needs to submit the Hydrogeological Study Report. PP needs to clarify that permission from CGWA is obtained for withdrawal of water
- 2) The Committee is of the view that the PP should submit the detailed plan in tabular format (year-wise for 30 years) 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, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5 year

interval for 30 years) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years.

- 3) As per DSS analysis there some part of the mining lease is in Forest Compartment No C-27. Thus, a certificate from the State Forest Department regarding involvement of Forest Land needs to be submitted along with the protection or safety distance needs to be left between the Common Boundary of mines and un-named forest.
- 4) List of Schedule-1 Species duly authenticated by Chief Wildlife Warden/State Forest Department needs to be submitted.
- 5) The Committee observed that the District Survey Report is not approved by the District Administration and nor uploaded on the website. Thus, a letter from the concerned authority to the effect that the DSR is prepared as per procedure stipulated in S.O. 141(E) dated 15.01.2016 and S.O. 3611 (E) dated 25.07.2018.
- 6) A Cluster Certificate from DMG regarding availability of other mining lease within 500 meters of the said mining lease.
- 7) PP has not mentioned the emission rate from different sources viz. drilling, blasting, loading, transportation etc. and after considering all the factors calculate the GLC for various pollutants in worst case scenario for total excavation. Impact due to transportation on both side of the road needs to be ascertained along with protective measure to be placed.
- 8) PP needs to clearly specify the budget earmarked for the construction of Black Topped road and its maintenance along with time line for its construction.
- 9) Original test reports need to be submitted along with certificate of accreditation of the lab from which test was conducted. In addition to this PP needs to verify the annexure attached to the EIA Report and provide the copy of all annexures.
- 10) The PP also needs to define the study to be carried out to ascertain the crop damage and how the project affected families will be compensated for damage to their crop.
- 11) The PP has proposed to develop Grazing land for the animals but location, amount and time line for the development of the same needs to be submitted.
- 12) Date of advertisement for Public Hearing and name of the newspapers in which advertisement was published needs to be submitted.

- 13) The PP needs to provide the timeline for implementation of Socio Economic Plan. The PP needs to define whether the Corporate Environment Responsibility(CER) and the activities proposed in socio economic plan are same or different. In case different then activities and budget for CER needs to be submitted.
- 14) In the response of ToR Compliance Point no. 40 PP has mentioned that "*environmental cost is estimated to be Rs. 28 lacs*" but in the EIA report PP has submitted that the total capital cost of the same will be Rs. 20 Lakhs (including mining cost), clarification in this regarding the same needs to be submitted. PP needs to examine the cost of EMP and submit the detailed time bound action plan for implementation of EMP with budgetary provisions. In addition to this PP should provide the composition of Environmental Management Cell with number of person to be engaged, their designation and tentative amount for the payment of the same.
- 15) The Committee also observed that PP has not submitted the activity wise time bound action plan for occupational health surveillance and same needs to be submitted.
- 16) The Committee is of the view that consultant should submit the proof validity of the accreditation.

**(2.14). Mining of Kakrolia Soapstone and China Clay Mine with production capacity 11,175 TPA (ROM) of M/s Golcha Minerals Private Limited, located Near Village – Kakrolia, Tehsil – Kotri, District – Bhilwara, State - Rajasthan (M.L. Area– 232.5 ha, M.L. No-107/09 [File No: J-11015/423/2015-IA.II(M); Proposal No: IA/RJ/MIN/74793/2015;Consultant; Udaipur Min-Tech Pvt Ltd]-Environment Clearance.**

The Proposal of M/s Golcha Minerals Private Limited is for Mining of Kakrolia Soapstone and China Clay Mine with production capacity 11,175 TPA (ROM). The PP applied for ToR on 26.11.2015 and proposal was considered in EAC Meeting held on 21.12.2015 wherein Committee recommended the proposal for grant of ToR. The ToR was issued vide Letter No J-11015/423/2015-IA.II (M) dated 13.01.2016. The PP after conducting the Public Hearing on 21.01.2017 submitted the final EIA/EMP Report and proposal is now considered in the EAC meeting held on 25-26, March, 2019 wherein the PP mentioned that it is a violation case and requested the Committee to transfer the same to violation Committee.

2. The Member Secretary informed the Committee that time period for application under violation category has already lapsed. The Committee therefore **returned the proposal in present form** as the appraisal of violation Category proposal is not the mandate of this Committee. The Committee also asked the Ministry to examine the matter and take the decision accordingly.

**(2.15). Production of 1 Million TPA of Limekankar & 0.2 Million TPA of Clay (Minor Mineral) in the Kallurani Limekankar & Clay (others) mines having lease area 479.195 Ha located at village- Kallurani, Muthuramalingapuram and Nattampati, Taluk- Aruppukottai, District- Virudhunagar, Tamil Nadu by M/s India Cements Limited [ Proposal No.- IA/TN/MIN/66148/2017; File No. J-11015/71/2017-IA-II(M); Consultant-Creative Engineers & Consultants] –Re-Consideration of EC.**

The proposal is a Green field project for Production of 1 Million TPA of Limekankar & 0.2 Million TPA of Clay (Minor Mineral) in the Kallurani Limekankar & Clay (others) mines having lease area 479.195 Ha located at village- Kallurani, Muthuramalingapuram and Nattampati, Taluk- Aruppukottai, District- Virudhunagar, Tamil Nadu by M/s India Cements Limited. The mine area is a part of the Survey of India Topo sheet No 58 K/3 bounded by Latitude N 9° 25' 36.6" to 9° 27' 10.7" and longitude E 78° 0.7' 55.5" to E 78° 09' 28.7".

2. The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14th September 2006 as the mining lease area is greater than 100 Ha.

3. The PP vide proposal No IA/TN/MIN/66148/2017 applied online for grant of ToR on 14.07.2017 and submitted Form-1 and Pre-Feasibility Report. The proposal was considered in EAC meeting held on August 29-30, 2017 & October 23-24, 2017 wherein Committee deferred the proposal for want of requisite information. The proposal was thereafter considered in December 21-22, 2017 wherein the Committee recommended for grant of ToR for Production of 1 Million TPA of Limekankar & 0.2 Million TPA of Clay (Minor Mineral) in the Kallurani Limekankar & Clay (others) mines having lease area 479.195 Ha located at village- Kallurani, Muthuramalingapuram and Nattampati, Taluk- Aruppukottai, District- Virudhunagar, Tamil Nadu by M/s India Cements Limited. The ToR letter was issued vide Lr. No. J-11015/71/2017-IA.II (M) dated 16.01.2018.

4. The PP vide proposal No IA/TN/MIN/66148/2017 applied online for grant of EC on 30.10.2018 and submitted EIA/EMP report after conducting public hearing. The Proposal is now placed in EAC Meeting held on November 15-16 2018 wherein the Committee deferred the proposal for want of requisite information. The PP submitted the requisite information on 31.01.2019 and the proposal is now placed in EAC meeting held on 25-26 March, 2019. The information sought by EAC and reply submitted by PP are as follows:

**(i) District Survey Report as per S.O. 3611(E) dated 25.07.2018 needs to be submitted.**

PP submitted the District Survey Report (DSR) as per S.O. 3611(E) dated 25.07.2018 separately for Limekankar and Clay (Others) for Virudhunagar District. The DSR is authenticated by Deputy Director, Geology & Mining of Virudhunagar District and the District Collector.

- (ii) **PP should clearly define the area under safety zone (i.e. 7.5meter statutory barrier & 50 meters from the Odai, Kanmai & pond) and area not considered by EAC for mining. PP should clearly define the area and amount of material to be removed from each block.**

PP submitted a map clearly showing the area of mining and area under safety zone. PP submitted that area under safety zone comprises of 7.5 Meters statutory barrier around mining lease boundary, 10 meters from the private patta land not belongs to company, 10 meters from village road and 50 meters from the odai. Thus out of total area 479.195 Ha the mining will be carried out in 305.792 Ha and 173.403 Ha will be remain un-used. The mining will be done in 10 blocks [ (Block-1: Area 39.474 Ha, Lime Kankar Mineable reserves 0.79 Million Tonne, Clay Mineable Reserves 0.89 Million Tonne); (Block-2: Area 2.091 Ha, Lime Kankar Mineable reserves 0.04 Million Tonne, Clay Mineable Reserves 0.05 Million Tonne); (Block-3: Area 51.442 Ha, Lime Kankar Mineable reserves 1.03 Million Tonne, Clay Mineable Reserves 1.16 Million Tonne); (Block-4: Area 11.599 Ha, Lime Kankar Mineable reserves 0.23 Million Tonne, Clay Mineable Reserves 0.26 Million Tonne); (Block-5: Area 86.93 Ha, Lime Kankar Mineable reserves 1.74 Million Tonne, Clay Mineable Reserves 1.95 Million Tonne);(Block-6: Area 39.694 Ha, Lime Kankar Mineable reserves 0.79 Million Tonne, Clay Mineable Reserves 0.74 Million Tonne);(Block-7: Area 32.737 Ha, Lime Kankar Mineable reserves 0.65 Million Tonne, Clay Mineable Reserves 0.74 Million Tonne);(Block-8: Area 3.014 Ha, Lime Kankar Mineable reserves 0.06 Million Tonne, Clay Mineable Reserves 0.07 Million Tonne);(Block-9: Area 15.461 Ha, Lime Kankar Mineable reserves 0.31 Million Tonne, Clay Mineable Reserves 0.35 Million Tonne);(Block-10: Area 23.35 Ha, Lime Kankar Mineable reserves 0.47 Million Tonne, Clay Mineable Reserves 0.52 Million Tonne)].

- (iii) **The Cost of EMP includes cost of CER and Occupational Health. Thus, PP needs to submit the cost of CER, EMP, and Occupational Health separately. The PP should submit the activity-wise break-up of cost and time line for its implementation. The activities proposed needs to be quantified for the future monitoring. The cost of online monitoring instruments is mentioned as 3 lakh this needs to be checked.**

#### **a) Corporate Environment Responsibility (CER)**

The PP submitted that the total project cost is 18.54 Crores. PP has conducted Social need assessment and based on this assessment and public hearing needs, detail plan activities under CER has been prepared. PP has proposed total cost of Rs 100 Lakhs for CER activities for 10 years. The budget earmarked under CER and activities proposed are as follows:

**Activity 1:** Periodical maintenance of village ponds & natural water channels by de-silting, bushes cleaning, etc. in consultation with Village administration bodies to support the domestic and agriculture water needs of local Villages.

Year										Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	40.0

**Activity 2:** Conducting medical camps, hygiene awareness camps, support to Primary Health Centers and sub-centers.

Year										Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0

**Activity 3:** Providing school kit for students. Repair works of schools buildings  
Toilets, water provision etc.

Year										Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	20.0

**Activity 4:** Maintenance of internal roads in rural areas, providing bus shelters,  
Public building repair works, paddy drying fields etc.

Year										Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	20.0

**Activity 5:** Support to livelihood.

Year										Total
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0

## b) Environmental Management Plan:

The PP submitted that the budget earmarked for implementation of Environmental Management Plan will be Rs 35 Lakh (Capital) and Rs 84.30 Lakh/annum (Recurring). The Capital cost of EMP includes [ (Water Tanker with sprinkler 5 KL; time line one year; amount Rs 22 Lakh), ii) Effluent Treatment Plant for workshop; time line one year; amount Rs 5 Lakh, iii) STP/soak pits; time line one year; amount Rs 5 Lakh, iv) Environmental monitoring instruments including automatic weather First Year monitoring, Noise level meter, Personal dust sampler, etc. time line one year; amount Rs 3 Lakh.]

The recurring cost of EMP is Rs 84.30 Lakhs which includes [For the Dust Suppression particulars 3 trips per day, 300 days per annum @ Rs. 560/trip is Rs. 5.0 Lakhs Per annum; Environmental Monitoring includes Ambient air quality monitoring - 6 locations, Ground water sample analysis - 5 locations, Surface water sample analysis - 3 locations, Ground water level - 1 location Lump sum 6.00, Noise levels monitoring - 6 locations, Soil quality - 2 locations, Micro Meteorological study - 1 location cost Rs. 6.0 Lakhs Per annum; Land Restoration By Simultaneous Backfilling & Leveling Of Mined Out Pits for Developing Plantation Rs. 55.0 Lakhs Per annum; Greenbelt development in the safety barrier area - Average Cost Rs.7.85 Lakhs/Annum, Plantation in mined out & back filled areas - Average Cost Rs.9.25 Lakhs/Annum, Plantation in buffer zone area - Rs.0.50 lakhs/Annum Plantation along the approach road - Rs.0.40 lakhs per annum is Rs. 18 Lakhs Per annum; Conducting Scientific Studies Awareness Programmes Costs Rs. 0.30 Lakhs per annum].

**The clay (others) needs to be defined and mineralogical composition of each mineral need to be submitted.**

Basically, clay is an alumina silicate ( $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$ ). But it is rarely found in pure form. Clay minerals are usually ultrafine grained, normally considered to be less than 2 micrometers in size on standard particle size classifications. Commercially clay is classified in to Ball Clay, China Clay, Fire Clay & Clay (Others) as per the G.O. (Ms.) No.70 Industries (MMC.1) dated 22.04.2016 by Government of Tamil Nadu. The Clay (Others) is found in various parts of Tamil Nadu. This clay is rich in Alumina ( $\text{Al}_2\text{O}_3$ ) normally ranges from 13 % to 18% which can be used as an additive in cement manufacturing. The samples of Clay (others) & Limekankar collected from the project area is analyzed at NABL accredited laboratory.

**(iv) PP should submit the affidavit for compliance of Common Cause Order and other statutory requirements.**

This is a fresh lease and hence Common Cause Order is not applicable for this project. However, the affidavit compliance of Common Cause Order and other statutory requirements are given.

**Comment of EAC:** The PP has shown the copy of Affidavit in presentation but original copy of the affidavit is not submitted for official record.

**(v) Public Hearing issues needs to be addressed properly and time bound action plan with budget for implementation of the activities proposed to address the issues raised by local public needs to be submitted.**

The issues raised during public hearing inter-alia include source of 25 KLD water that will be used for this project, depletion of ground water table and restriction of flow of water to nearby pond due to mining activity,

conversion of agricultural land to dry patta land, environmental impacts on land, air, water and animals & birds in the area, soil erosion in backfilled areas during monsoon, environment in the northern side of Muthuramalingapuram village has got polluted due to the existing rough stone quarries & other mining activities, dust causing air pollution which will tend to cause respiratory diseases need to be given importance and dust emission due to mining and allied activities of Limekankar has to be mentioned properly in EIA report, People in nearby villages are already facing severe kidney problems due to water issues, employment to local people in the proposed mining project.

The PP proposed to procure the water required for the project from outside agency and budget will be met from revenue during operation. PP has proposed that the depth of mining is just 2.5m only and as such there will not be any ground water table intersection. Therein water falling within the mined out and backfilled area will get in filtered through the backfilled waste and in turn recharge the ground water only. Apart from this the proponent will contribute for the up keeping of nearby natural water bodies like pond, kanmai by periodical desilting in coordination with local villagers and local administrative bodies. In addition to this the budgetary provision of Rs.55 lakhs/Annum for land restoration, Rs. 4.0 Lakhs/Annum for keeping of the nearby natural water bodies by periodical desilting and Rs.0.50 Lakhs/Annum given for Conservation & restoration of water bodies adjoining to the quarry lease area in the conservation plan prepared for Peafowl. Time Line for all these activities is Year 1 onwards. PP has proposed that during working the mine will be worked in 50m X 50m blocks and proper drainage arrangements will be made to avoid surface runoff. Budget proposed by PP Rs. 9.25 Lakhs/Annum for plantation in backfilled areas, drainage arrangement, Budget: Rs.7.85 Lakhs/Annum for Greenbelt development in the safety barrier area, Budget: Rs.0.50 Lakhs/Annum for Plantation in buffer zone area. Budget: Rs.0.40 lakhs per annum for Plantation along the approach road for first five years. Budget: Rs. 5.0 lakhs will be spent towards construction of ETP within the Time Line of Year 1 onwards. PP proposed Simple, shallow depth mining with simultaneous backfilling using very few types of equipment are proposed in this mine. Totally Rs.35.0 Lakhs will be spent as capital expenditure and Rs.84.30 Lakhs/Annum will be spent under recurring cost for implementation of EMP. This proposed quarrying lease area is situated 2.3KM (aerial) away from the Muthuramalingapuram village habitation area. Budgetary provision (Rs.55 lakhs/Annum) for land restoration by simultaneous backfilling is given under Recurring Environmental Control Cost in Chapter-6 and also included in the total project cost. Time line - Year 1 onwards. For control of air pollution, PP Proposed for the Development of green belt plantation around mine, along the roads, backfilled area, in various undisturbed areas within the mine lease areas. Budget: Rs. 35 lakhs under capital & Rs. 84.3 lakhs per year Time frame: Year 1 onwards. PP replied to this There will be no effluent discharge from this mine Medical camps, hygiene awareness camps will be conducted, support to Primary Health Centers and sub-centers will be provided towards maintaining the health status of the locals.

Provision of drinking water purifier will also be made. Budget allocated: 1 Lakh per annum for conducting medical camps, etc. Time Line- Year 1 onwards. PP submitted that indirectly more than 100 persons will be benefited by gainful indirect employment opportunities through various service related activities connected with the project operations. Budget: Support for livelihood, Rs. 1 Lakh per annum Time Line: Year 1 onwards. PP proposed to carry out Corporate Environment Responsibility (CER) in addition to CSR activities which will be carried out as per the statutory norms (minimum 2% of company's annual profit). Budget: Rs. 100 Lakhs for ten years (@Rs. 10 Lakhs per annum) Time Line: Year 1 onwards is proposed under CER. PP also committed to repair the three culverts in the Periyayakapuram village road. PP proposed that the repair works in the three culverts in the Periyayakapuram village road will be carried out under CER budget. Budget: Rs.1.7 Lakhs Time Line: Year

**Observation of EAC:** Public hearing for the project was conducted on 26.06.2018 (11.00 AM) at Conference Meeting Hall, Collectorate Campus, Virudhunagar District, Tamil Nadu through Mr. A. Sivagnanam, I.A.S. District Collector - Virudhunagar, District Environmental Engineer - Tamil Nadu Pollution Control Board. The advertisement for public hearing was published in 'New Indian Express' and 'Dhinamalar' on 24.05.2018. The major issues raised by the local people inter alia related to provision of bore-wells, water level of the village, blasting to be done without vibration in area, water supply to villages, local employment, CSR activities, repairing of three culverts in the Periyayakapuram village road, kidney problems of people due to water issues, air pollution, impacts on land, air, water and animals & birds, soil erosion, plantation, backfilling and reclamation. The PP has submitted the above mentioned action plan to address the PH issues.

**(vi) Disaster Management Plan needs to be revised as suggested by the Committee.**

PP revised and suggested disaster management plan for Emergency Preparedness & Responses is prepared comprising formation of Emergency Response Team (ERT) comprising emergency consultative committee under the Head of Mines, provision of facilities such as organizational plan, internal communication system, equipment plan, emergency alarm, medical center, transport control system, catering and refreshments for the victims for them, Emergency procedural methodologies to be adopted for proper execution of emergency plan etc., Functions of the team are defined, key person is identified and his role & responsibility is fixed. Training need, procedure to investigate & analyze incidents, nonconformance, and Corrective and Preventive Action for handling and Investigating non-conformance, taking action to mitigate any impacts caused and for initiating and completing corrective and preventive action will be established and maintained. Need for Management review meeting periodically chaired by Top Management ensuring compliance to the Occupational Health & Safety Management System and Policy and objectives towards Continual Improvement is emphasized.

- (vii) The details of statutory clearances, NOCs, Consent, land conversion permission, water withdrawal permission requires under various rules and regulation for this project needs to be submitted in a tabular form.**

Letter of intent is recommended by the Principle Secretary to Government, Industries (MMC.2) Department, Tamil Nadu. 16025/MMC.2/2016-1 dated on 23.05.2017. Mining plan is Approved by the Department of Geology & Mining, Government of Tamil Nadu and vide letter no is 6573/MM10/2016/LKNnr date on 26.07.2018. Obtained the certificate stating "No Mining Lease/Quarrying Lease within 500m radius from the area recommended for quarrying lease". Under the Deputy Director, Geology & Mining, Virudhunagar District, Tamil Nadu vide letter No. Rc.No.KV1/13685/2015 Dated on 30.08.2018. No reserve forest land certificate Obtained from Wildlife Warden, Srivilliputhur, Virudhunagar District, Tamil Nadu Vide Letter No. C.No.2613/2017 D dated on 28.08.2018. No Environmental sensitive areas, National Parks, Sanctuaries, Biosphere Reserves, Protected Areas, etc. certificate Issued from Wildlife Warden, Srivilliputhur, Tamil Nadu Vide letter No C. No.2613/2017 D dated on 28.08.2018. Conservation Plan for Peafowl (*Pavo cristatus*) Authenticated Wildlife Warden, Srivilliputhur, Virudhunagar District, Tamil Nadu. Vide letter no C.No.2613/2017 D dated on 12.09.2018. Authenticated list of flora and fauna within and 10KM radius area from the area recommended for quarrying lease Authenticated from Wildlife Warden, Srivilliputhur, Virudhunagar District, Tamil Nadu vide letter No C.No.2613/2017 D. Dated on 12.09.2018. District Survey report separately for Limekankar and Clay (others) for Virudhunagar District, as per S.O. 3611(E) dated 25.07.2018. Approved District *Collector* /Deputy Director of Geology & Mining, Virudhunagar District, Tamil Nadu vide letter No Rc.No.KV1/13685/2015 dated on 23.01.2019.

**Observation of EAC:**The Committee observed that in addition to above there are other clearances also required for this project such as consent to operate from pollution control board etc. The reason the committee asked this information to define the requirement statutory clearance because PP has to submit an undertaking for compliance of all statutory and PP should at the beginning itself for the requirement of various clearance.

- (viii) Occupational health plan & Plantation Plan needs to be revised as suggested by the Committee.**

The PP has earmarked Rs 6.10 lakh/annum for occupational health which Initial Medical Examination (IME) @ Rs.3000 for 25 persons Budgets Rs. 0.75Lakhs Per annum. Periodical Medical Examination (PME)- Once in 3 years -above 45 aged person and Once in 5 years -below 45 aged person @ Rs.3000 for 10 persons/annum Budgets Rs. 0.30 Lakhs Per annum. Safety equipment/appliance (Helmet @ Rs.500, Safety shoe @ Rs.1000, Reflective jackets @ Rs.500, Ear plug/muff, hand gloves, musk @ Rs.500

and Uniform @ 2000) = 4500/ Person Budgets Rs. 1.35 Lakhs Per annum  
Safety equipment/appliance for indirect employees. (Helmet @ Rs.500,  
Safety shoe @ Rs.1000, Reflective jackets @ Rs.500, Ear plug/muff, hand  
gloves, musk @Rs.500) = 2500/ Person Budgets Rs. 2.50 Lakhs Per annum.  
Drinking water (Procurement) Budgets Rs. 0.60 Lakhs Per annum.  
Occupational health, Sanitation and hygiene-awareness and training  
program Budgets Rs. 0.60 Lakhs Per annum.

**Plantation:** The PP revised the plantation plan and submitted for that development of vegetative cover is shown into two parts namely Plantation and Green belt development. Plantation will be carried out in the backfilled mined out area and the untouched northern part of lease area. Green belt development will be done in the peripheral safety zone around the mine, on both side of the road (avenue plantation) and other safety zone areas also. In the post mining stage, out of 479.195 Ha of lease area, about 473.226 Ha will be covered under plantation/green belt development. Out of the total plantation, green belt development comprising about 310700 plants covering an area of 124.160 Ha (@2500 plants per hectare) and plantation in the back filled areas comprising about 349100 plants covering an area of 349.066 Ha(@ 1000 plants per hectare) . Totally about 659800 saplings over 473.226Ha will be planted under greenbelt and plantation in the backfilled areas over a period of 10 years. Local native species which can grow effectively with less water consumption shall be selected. On the post mining stage, since the plants grown in the area should be beneficial, native fruit bearing trees & medicinal plants also proposed in the plantation programme.

The PP proposed that the total plantation for the life of mine will be 349100 plants of Neem, Ponnavarai, Pungan, Teak, Ficus Religiosa, Terminalia arjuna, Delonix Regia, Swietenia mahagoni & fruit bearing trees like Sappota, Guava, mango, etc. in the area of 349.066 Ha which includes 25000 plants in area of 25.00 Ha during 1<sup>st</sup> year, 35000 plants in area of 35.00 Ha during 2<sup>nd</sup> year, 35000 plants in area of 35.00 Ha during 3<sup>rd</sup> year, 50000 plants in area of 50.00 Ha during 4<sup>th</sup> year, 50000 plants in area of 50.00 Ha during 5<sup>th</sup> year at mined out & backfilling area and during Seconds five year plan 110800 plants in area of 110.792 Ha of mined out & Backfilled areas in block Nos. 3,4,5 &10 and 43300 plants in the area of 43.274 Ha of untouched areas within the mining blocks. PP proposed that total 310700 plants will be developed as green belt at an area of 124.16 Ha in 10 years which includes 22300 plants in an area of 8.892 Ha Along the Safety Barrier area in Block-1 (southern part), Block-8 & 9 (southern part) & Along the haul road during 1st year, 31200 plants in an area of 12.449 Ha Along the Safety Barrier area in Block-1 (northern part), Block-7 (southern part) & Block-9 (south side) & Along the haul road during 2nd year, 31200 plants in an area of 12.449 Ha Along the Safety Barrier area in Block-6 (eastern part), Block-5 (southern part) & Block-9 (northern part) & Along the haul road during 3rd year, 44500 plants in an area of 17.785 Ha Along the Safety Barrier area in Block-6 (western part), Block-7 (northern part) & Block-9 (north side) & Along the haul road during 4th year, 44500 plants in an area

of 17.785 Along the Safety Barrier area in Block- 2, Block-3 (southern part), Block-5 (south & east side), Block-10 (southern part) & Along the haul road during 5th year and 137000 plants in an area of 54.800 Ha Along the Safety Barrier area in Block-3 (northern part), Block-4, Block-5 (northern part), Block-10 (northern part) during second five year.

**Observation of EAC:**The Committee observed that PP has revised the plantation plan but the budget for implementation of the same is not provided by the PP. PP also did not mention about the target for the survival rate, PP also not provided the geo-location of year wise area to be put up under plantation for future monitoring.

**(ix) The PP needs to submit the source of water and how the PP will reduce the water consumption over the years. Target for rain-water harvesting and reduction in water use needs to be submitted.**

Total water requirements for the ML operations will be 25.0 Cu.M/day. It is proposed to procure the required water from outside agency. Authorized water supply agency(s) will be finalized before commencement of mining operations and affidavit from project proponent in this regard was submitted. Various methods towards reducing the water use like reuse of treated work shop ETP effluent, treatment and recycling of flush water in restrooms, creating awareness amongst the workers to turn off Tap and showers immediately after use, prevention of leaks in pipes and water sprinklers, choosing the native plants/trees species with low water requirement will be carried out. It is also proposed to use approved additives towards effective dust suppression on the mines haulage road for better binding and towards reduction in water consumption. More emphasize will be given for maximum rainwater harvesting in the backfilled area, in the three major water bodies (kulam/ Kanmai) covering a total extent of 26.645 hectares adjoining to the proposed quarry site, carryout periodical desilting and cleaning of natural water bodies like ponds, kanmai, etc. surrounding the lease area and in 6 no's of settling tanks. Rs. 4 Lakhs per year is earmarked for 10 years under Corporate Environmental Responsibility budget, towards Periodical maintenance of village ponds & natural water channels by de-silting, bushes cleaning, etc. to meet the water needs of locals such as Kallurani, Muthuramalingapuram, Narttampatti, Bommakottai, Meenachipuram, etc.

**Observation of EAC:** The Committee observed that PP has already constructed the Black Topped road for the transportation of mineral from mine to National Highway only a small portion of the road which is actually village road is un-paved. In addition to this PP has proposed for dust binder but did not provide the cost of the same and reduction in water consumption due to use of dust binders. The EAC felt that major portion of the transportation route is black topped and PP will not require use of dust binders. But conservation of water through any mean is appreciable and PP should work out the cost for the same/for black topping of remaining un-paved village road and its maintenance. Committee felt that rain water

harvesting measure is not to conserve the water for the mining but also for the nearby community. Thus, PP should identify the feasible location for rain water harvesting structures in nearby villages is consultation with local administration. The expenditure for rain water harvesting structures should be additional to what already proposed under CER.

- (x) **PP has proposed for the backfilling the entire mining pit but not at original ground level. Thus, PP should submit a plan wherein the backfilling to be done at original ground level and in this scenario, what would be the size and capacity of void left for water reservoir.**

The entire area is mineralized and the depth of the top clay layer is 1.5 meters and the thickness of Limekankar is 1.0 meters. As such the depth of mining is 2.5m only. The Limekankar will be mined after removing the over burden clay layer of around 1.5m, which will be partially used for the process (20%) and remaining quantity (80%) will be used for simultaneous backfilling of the mined out pit. PP submitted that since the depth of mining is less and considering the availability of balance material with swell, it is expected that the variation is the height difference in the backfilled area is around 1.2 m only. The surface elevation of the mine lease area is gently sloping from NW to SE with maximum elevation of 94RL and minimum 84RL. It is found that the present surface profile can be merged with the backfilled area suitably without any major change in the topographical scenario.

**Observation of EAC:** The EAC observed that slope of the mine is from NW to SE and water reservoir needs to be created at the lowest contour point so that seepage water can be arrested. There are other lands also within the mining lease area which is not owned by PP thus, it is necessary to provide the original ground level. Further, making a pit a designated place for water storage is beneficial and it can be easily monitored and maintained. PP should plan its mining activity in such a way that initially pit will be created for water reservoir and then other part of mining lease can be mined with simultaneous backfilling and side casting. Thus, PP needs to submit a plan within one month clearly showing the dimension of water reservoir and its location. Further, the clay at the contact zone from Limekankar should be used for cement manufacturing.

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

- 1) Original Copy of affidavit to Comply with order of Hon'ble SC dated 2.08.2017 & other statutory requirements.
- 2) The PP is submitting the affidavit to comply with statutory conditions but did not define what are the statutory clearances required for this project.

- 3) The plantation plan has been revised but the budget for implementation of the same is not provided by the PP. Thus, PP needs to submit the budget for the same, target for the survival rate, geo-location of year wise area to be put up under plantation for future monitoring.
- 4) The PP has proposed use of dust binder for reduction of dust but cost for the same is not provided by the PP. Further, it has observed that a small portion of village road leading to National Highway is un-paved and will be used for transportation from this project. Thus, PP needs to submit the mitigative measures to be adopted for control of dust emission on this road. As it is a village road and villagers also used it, then how the PP will manage the traffic on this road, there may be chances of damage of village road from transportation of mineral thus how PP will maintain this road. EAC is of the view that PP in consultation with administration back topped this road. Thus, budget for the same needs to be submitted along with timeline.
- 5) The EAC observed that in PH issue raised is regarding depletion of ground water, although the mining of shallow depth and will not intersect ground water table. The EAC felt that rain water harvesting structures to be created in the prominent location in the nearby villages so that whatever amount of water used for this project can be compensated. Thus, budget for the same along with timeline and possible locations needs to be submitted.
- 6) The EAC observed that PP did not submit the plan wherein a water reservoir inside the mining lease area to be created and remaining area to be backfilled to its original ground level. The slope of mine is from NW to SE. Thus, PP needs to identify the location of water reservoir on the SE side of the mining lease. This water reservoir to be constructed in the initial stage of mining so that water can be stored from the beginning of the mining operation and demand on outside water supply can be reduced. In the remaining area PP can follow the simultaneous back filling up to the original ground level. Thus, as previously asked PP needs to submit a plan clearly showing the location and area of water reservoir to be developed. In addition to this what would be the protective measure to be placed for the protection of water reservoir and its regular maintenance.
- 7) The Committee observed that previously it was asked "*The details of statutory clearances, NOCs, Consent, land conversion permission, water withdrawal permission requires under various rules and regulation for this project needs to be submitted in a tabular form.*" But PP did not provide the complete details for example there is a requirement of CTE/CTO for this project, permission for setting up of weigh bridge and its calibration, permission for diesel tanker etc. Thus, PP needs to identify all the statutory requirement/permissions/NOCs required for this project and submit it in a tabular format with as asked previously.
- 8) The PP should go through the standard EC Conditions and if agreed, submit an undertaking to comply with all the standard conditions and additional

conditions that will be prescribed by EAC in case EC will be granted to this project.

- 9) The EAC observed that emission due to transportation is calculated based on lease distance of 1.0 KM but in actual lead for transportation is more than 1 KM. Thus, PP needs to calculate emission rate and GLC values based on the actual lease distance.

**(2.16). Nadidih Iron & Manganese Mine of M/s Feegrade & Co. (P) Ltd. for enhancement of production capacity of ROM Iron Ore from 2.88 million TPA to 6.0 million TPA and reduction in dry processing (crushing/screening) of low grade iron ore from old stack/dumps from 4.571 million TPA to 1.451 million TPA (Total handling 7.451 million TPA), located at villages Nadikasira & Rengalbeda, Tehsil-Koira, District- Sundargarh, Odisha (MLA 121.405ha) by M/s Feegrade & Co. (P) Ltd. (Proposal No.; IA/OR/MIN/60756/2016; Consultant: M/s Ecomen Laboratories Pvt. Ltd.)-Re-Consideration of EC**

The proposal of M/s Feegrade & Co. Pvt. Ltd. is for Enhancement of production capacity of ROM Iron Ore from 2.88 million TPA to 6.0 million TPA and reduction in dry processing (Crushing/Screening) of low grade iron ore from old stack/dumps from 4.571 million TPA to 1.451 million TPA (Total handling 7.451 million TPA) of Nadidih Iron & Manganese Mine, Village –Nadikashira&Rengalbeda, Tehsil- Koira, Dist.- Sundargarh, Odisha (MLA 121.405 ha). The mine lease area is bounded by Latitude: 21° 58' 20.15" N – 21° 57' 23.35" N, Longitude: 85° 14' 58.34" E – 85° 15' 34.84" E in Survey of India Toposheet no. 73 G/5 (F45N5). The proposal of TOR was earlier considered by the Expert Appraisal Committee in its meeting held during June 21-22, 2018 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TOR was issued by the Ministry vide letter no. J-11015/249/2016-IA.II (M) dated 31st July, 2018. The Proponent submitted the EIA/EMP Report online to Ministry for seeking environmental clearance.

The EC proposal was placed in EAC meeting held during January 22-23, 2019 and the Committee deferred the proposal and sought the certain requisite information/clarification including resubmission of action plan for CSIR-NEERI carrying capacity study. The proposal was placed again in this meeting and the Committee deliberated the information/clarification submitted by PP. The Committee, after detailed deliberations, **returned the proposal in present form** and sought the following requisite information/clarification: -

- (i) The Committee observed that the baseline data have been carried out during March-May, 2018 for 3 Months, and the Committee is of the view that the consultant was not having the valid accreditation during this period. The PP has submitted the accreditation certificate for the period of baseline study. However,

the Committee is of the view that the certificate will be subjected to get confirmation from the QCI for further necessary action.

- (ii) The Committee observed in the EIA/EMP report that the period of involvement of EIA team for preparation of EIA-EMP report is 2017-2018 but baseline study carried out after this period, i.e. March-May, 2018. PP needs to submit the valid certificate for the period of involvement of EIA team for the baseline study carried out, i.e. March-May, 2018.
- (iii) The Committee observed that the response submitted by PP is generic not a specific response. Thus, the Committee suggested that PP needs to resubmit the response for the questions/clarifications raised in EAC meeting held during January 22-23, 2019.
- (iv) The Committee has deliberated the point wise compliance of earlier Environmental Clearance. The Committee observed that the PP not complied some of the EC conditions and also not submitted the updated compliance report of earlier EC. The PP needs to submit the updated compliance report.
- (v) The Committee observed that the lessee has applied for surrender of remaining 5.443 ha forest land which is under process with the State Government. The PP needs to submit the copy of documents for the same.
- (vi) The Committee observed in EIA/EMP report that present excavation and proposed excavation values is different than the earlier EC capacity and current project proposal. The PP needs to submit the correct values in revised EIA/EMP report.
- (vii) The Committee observed that the air quality modeling to be validated with existing quantity of extracted material as well as the exercise to be carried out for proposed quantity with OB or inter burden. The Committee also observed that the particle size needs to be addressed properly.
- (viii) The Committee observed that the air quality monitoring location within the mine and downwind direction to be redone.
- (ix) The Committee observed that the conservation plan for schedule I species is not approved yet. PP needs to submit the approved conservation plan.
- (x) The Committee observed that the PP using dust binder, so the PP needs to submit details of water quantity usage and how much quantity the water consumption will be decreased.
- (xi) The Committee observed that PP has used ISCST (Industrial Source Complex-Short Term ISC-3) air quality modeling technique, however, the Committee suggested to use the recent air quality modeling for data analysis and submit the report.
- (xii) The Committee observed that the surface water quality report has not been compared with NWMP data in the vicinity. PP needs to submit a comparison on the surface water quality as well as ambient air quality data collected under NAAQM program.

**(2.17). Enhancement in the production capacity of SMS grade limestone from 1.25 MTPA to 1.50 MTPA along with ROM handling of limestone from 2.70 MTPA to 3.30 MTPA at operating Sanu-I Limestone Mine (ML No. -27/1996) of Rajasthan State Mines & Minerals Limited, located at village-Joga, Tehsil & District- Jaisalmer, Rajasthan (ML area of 1000 ha) -Amendment in the EC J11015/42/2006/- IA.II (M) dated 3rd Aug, 2007 and further amendment vide no. J-11015/42/2006-IA.II (M) dated 22.03.2017], [File No. J-11015/42/2006-IA.II (M); Proposal No.IA/RJ/MIN/8924/2006]-Amendment in EC.**

The Proposal of M/s Rajasthan State Mines & Minerals Limited is for Enhancement in the production capacity of SMS grade limestone from 1.25 MTPA to 1.50 MTPA along with ROM handling of limestone from 2.70 MTPA to 3.30 MTPA at operating Sanu-I Limestone Mine (ML No. -27/1996) of Rajasthan State Mines & Minerals Limited, located at village-Joga, Tehsil & District- Jaisalmer, Rajasthan (ML area of 1000 ha).

The Proposal is placed in EAC Meeting held on 25-26 March, 2019 wherein the Committee observed that PP is proposing 20% enhancement in the production under Para 7(ii) of EIA Notification 2006 but the application made by the PP is not under para 7 (ii) rather it is for amendment in EC. The Committee therefore **returned the proposal in the present form** and asked the PP to apply in proper format online for considering this proposal.

**(2.18). Proposal for extension of validity of the EC granted vide Lr No. J11015/64/2014-IA-II(M); dated 14th May, 2015 to M/s Public Works Department, State Government of Tamil Nadu for Quarrying River sand in u/s and d/s of Kattalai Bed Regulator in Cauvery River with production capacity of 15,18,958 m<sup>3</sup> over and extent of 256.06 ha located at Village Mayanur Tehsil – Krishnarayapuram, District- Karur, Tamil Nadu [File No. J-11015/64/2014-IA-II(M); Proposal No. IA/TN/MIN/23694/2013) - Extension of validity of the EC**

The proposal of M/s Public Works Department, State Government of Tamil Nadu is for extension of validity of the EC granted vide Lr No. J-11015/64/2014-IA-II(M) dated 14th May, 2015 to M/s Public Works Department, State Government of Tamil Nadu for Quarrying River sand in u/s and d/s of Kattalai Bed Regulator in Cauvery River with production capacity of 15,18,958 m<sup>3</sup> over and extent of 256.06 ha located at Village Mayanur Tehsil – Krishnarayapuram, District- Karur, Tamil Nadu

2. The PP submitted that in the EC granted vide Lr. No. J-11015/64/2014-IA-II(M) dated 14th May, 2015 in para 3 it is mentioned that the life of mine is 3 years. The PP has mentioned that quantity of sand could not get exhausted due to flow in the river and storage of water in the newly constructed barrage. Due to this reason

the project was not completed in 3 years. The PP has now requested for extension of validity for 3 more years. Accordingly, the proposal was placed in EAC Meeting held during January 22-23, 2019 wherein the Committee deferred the proposal as PP did not attend the meeting. The Proposal is now again placed in EAC Meeting held on 26.03.2019 wherein the Member Secretary informed the Committee about the provision of validity of EC as per notification No S.O. 2944(E) dated 14.06.2016 wherein following is mentioned:

"9.(i) *Validity of Environmental Clearance (EC): (i) The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub-paragraph (iii) of paragraph 8, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects [item 1(c) of the Schedule], project life as estimated by the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and seven years in the case of all other projects and activities.*

(ii) *In the case of Area Development projects and Townships [item 8(b)], the validity period of seven years shall be limited only to such activities as may be the responsibility of the applicant as a developer:*

*Provided that this period of validity with respect to sub-paragraphs (i) and (ii) above may be extended by the regulatory authority concerned by a maximum period of three years if an application is made to the regulatory authority by the applicant within the validity period, together with an updated Form I, and Supplementary Form IA, for Construction projects or activities (item 8 of the Schedule):*

*Provided further that the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, as the case may be, for grant of such extension.*

(iii) *Where the application for extension under sub-paragraphs (i) and (ii) above has been filed-*

(a) ***within thirty days after the validity period of Environmental Clearance, such cases shall be referred to concerned Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee and based on their recommendations, the delay***

**shall be condoned at the level of the Joint Secretary in the Ministry of Environment, Forest and Climate Change or Member Secretary, State Level Expert Appraisal Committee or Member Secretary, District Level Expert Appraisal Committee, as the case may be;**

- (b) more than thirty days after the validity period of Environmental Clearance but less than ninety days after such validity period, then, based on the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change or Chairman, as the case may be :**

**Provided that no condonation for delay shall be granted for any application for extension filed beyond ninety days after the validity period of Environmental Clearance.”.**

3. The Committee observed that in the instant case EC was granted vide Lr. No. J-11015/64/2014-IA-II(M) dated 14th May, 2015 and was valid for three years i.e till 13.05.2018 and PP was required to apply for extension of validity **within thirty days after the validity period of Environmental Clearance** i.e by 13.06.2018 for consideration of case by EAC. Further, the condonation in delay might be provided by Hon'ble Minister, if PP would have been applied within 90 days i.e. 13.08.2018. But in the instant case PP has applied in December 2018.

In respect of observation of EAC, the PP submitted that they have approached the Ministry prior to expiry of EC for clarification, but failed to provide any supporting document before the committee.

4. In view of the above, as notification does not permit extension of validity of EC beyond 90 days of its expiry and as the PP did not submit any documents proving the PP have approached the Ministry for extension of validity the Committee **deferred** the proposal with a recommendation for reconsideration provided PP is able to submit any supporting document to Ministry supporting their claim that PP has approached the Ministry for extension of validity of EC before the expiry of the same. The Committee also asked the Ministry to examine the matter first and if appropriate then place in EAC. In case, Ministry did not find it appropriate then PP has to apply a fresh.

5. The Committee also observed that validity of EC as per EIA Notification 2006 is maximum for 30 years or life of mine as estimated by EAC. And even after 30 years the validity of the EC can be extended subject to provision of the S.O. 2944(E) dated 14.06.2016. Further, the life of mine depends of many factors, such as rate of production achieved, closure mine due Court order or any other unforeseen

circumstance, increase in reserves based on further exploration etc. Thus, Ministry may re-look into the provision of the notification regarding validity of EC based on the project life and refer the matter to policy division for taking a holistic view.

**(2.19). Proposal for extension of validity of the EC granted vide Lr No.J-11015/343/2013-IA.II (M); dated 14<sup>th</sup> May, 2015 to M/s Public Works Department, State Government of Tamil Nadu for Quarrying River Sand in u/s and, 247 m<sup>3</sup> over an extent of 196.25 ha, located at Village Sriramasamuthiram/Silaipillayaputtur, Tehsil-Thottiyam, District- Trichy, Tamil Nadu [File No.J-11015/343/2013-IA.II (M); Proposal No. IA/TN/MIN/20350/2013]-Extension of validity of EC**

The proposal of M/s Public Works Department, State Government of Tamil Nadu is for extension of validity of the EC granted vide Lr No.J-11015/343/2013-IA.II(M) dated 14<sup>th</sup> May, 2015 to M/s Public Works Department, State Government of Tamil Nadu for Quarrying River sand in u/s and d/s of Kattalai Bed Regulator in Cauvery River with production capacity of 15,01,247 m<sup>3</sup> over and extent of 196.25 ha located at Village Sriramasamuthiram /Silaipillayaputtur, Tehsil- Thottiyam, District- Trichy, Tamil Nadu.

2. The PP submitted that no forest land is involved. There is no wild life sanctuary within 10Km. radius from the project site area. The quarry is located around 200 km away from Bay of Bengal. There is no litigation pending against this project. Mining is by open cast semi mechanized, shallow mining on sand shoals above the River bed. There is no permanent or temporary change in land use.

3. The PP submitted that in the EC granted vide Lr. No. J-11015/343/2013-IA.II(M) dated 14<sup>th</sup> May, 2015 in para 3 it has mentioned that life of mine is 3 years.

The PP has mentioned that quantity of sand could not get exhausted due to flow in the river and storage of water in the newly constructed barrage. Due to this reason the project was not completed in 3 years. The PP has now requested for extension of validity for 3 more years. Accordingly, the proposal was placed in EAC Meeting held during January 22-23, 2019 wherein the Committee deferred the proposal as PP did not attend the meeting. The Proposal is now again placed in EAC Meeting held on 26.03.2019 wherein the Member Secretary informed the Committee about the provision of validity of EC as per notification No S.O. 2944(E) dated 14.06.2016 wherein following is mentioned:

*"9.(i) Validity of Environmental Clearance (EC): (i) The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub-paragraph (iii) of paragraph 8, to the start of*

production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects [item 1(c) of the Schedule], project life as estimated by the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and seven years in the case of all other projects and activities.

- (ii) In the case of Area Development projects and Townships [item 8(b)], the validity period of seven years shall be limited only to such activities as may be the responsibility of the applicant as a developer:

*Provided that this period of validity with respect to sub-paragraphs (i) and (ii) above may be extended by the regulatory authority concerned by a maximum period of three years if an application is made to the regulatory authority by the applicant within the validity period, together with an updated Form I, and Supplementary Form IA, for Construction projects or activities (item 8 of the Schedule):*

*Provided further that the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, as the case may be, for grant of such extension.*

- (iii) Where the application for extension under sub-paragraphs (i) and (ii) above has been filed-

- (a) **within thirty days after the validity period of Environmental Clearance, such cases shall be referred to concerned Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee and based on their recommendations, the delay shall be condoned at the level of the Joint Secretary in the Ministry of Environment, Forest and Climate Change or Member Secretary, State Level Expert Appraisal Committee or Member Secretary, District Level Expert Appraisal Committee, as the case may be;**
- (b) **more than thirty days after the validity period of Environmental Clearance but less than ninety days after such validity period, then, based on the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change or Chairman, as the case may be :**

***Provided that no condonation for delay shall be granted for any application for extension filed beyond ninety days after the validity period of Environmental Clearance.”.***

3. The Committee observed that in the instant case EC was granted vide Lr. No. J-11015/64/2014-IA-II(M) dated 14th May, 2015 and was valid for three years i.e till 13.05.2018 and PP was required to apply for extension of validity ***within thirty days after the validity period of Environmental Clearance*** i.e by 13.06.2018 for consideration of case by EAC. Further, the condonation in delay might be provided by Hon'ble Minister, if PP would have been applied within 90 days i.e. 13.08.2018. But in the instant case PP has applied in December 2018.

In respect of observation of EAC, the PP submitted that they have approached the Ministry prior to expiry of EC for clarification, but failed to provide any supporting document before the committee.

4. In view of the above, as notification does not permit extension of validity of EC beyond 90 days of its expiry and as the PP did not submit any documents proving the PP have approached the Ministry for extension of validity the Committee **deferred** the proposal with a recommendation for reconsideration provided PP is able to submit any supporting document to Ministry supporting their claim that PP has approached the Ministry for extension of validity of EC before the expiry of the same. The Committee also asked the Ministry to examine the matter first and if appropriate then place in EAC. In case, Ministry did not find it appropriate then PP has to apply a fresh.

5. The Committee also observed that validity of EC as per EIA Notification 2006 is maximum for 30 years or life of mine as estimated by EAC. And even after 30 years the validity of the EC can be extended subject to provision of the S.O. 2944(E) dated 14.06.2016. Further, the life of mine depends of many factors, such as rate of production achieved, closure mine due Court order or any other unforeseen circumstance, increase in reserves based on further exploration etc. Thus, Ministry may re-look into the provision of the notification regarding validity of EC based on the project life and refer the matter to policy division for taking a holistic view.

**(2.20). Fluorspar (fluoride) and Quartz mine of M/s Kishore Kumar Gandhi in Village Mochhal, Tehsil Sheoganj, District Sirohi, Rajasthan (MLA 167.72ha, M.L.No 4/95) [File No J-11015/03/1999-IA-II(M) ; Proposal No. IA/RJ/MIN/70147/2000]-Amendments in EC**

The proposal of M/s Kishor Kumar Gandhi is for Amendment in EC granted vide Lr No. J-11015/03/1999-IA-II (M)dated 30th March, 2000. The Mining lease area of 167.62 ha situated Near Village-Mochhal, Tehsil-Sheoganj and District-Sirohi, Rajasthan.

2. In the instant case the prayer of the PP is to mine out the existing Fluorspar from the mining lease. The amendment sought by the PP are 1) Exemption from production limit of Fluorspar & adjoining associated minerals, 2) Exemption from prior approval of change in mining technology, method & scopes, 3) Removal of overburden and associated minerals with parent rock on basis of previous EC, and 4) Relaxation in renewal of consent to operate.

3. In addition to above, PP has also mentioned about Hon'ble High Court, Jodhpur on the importance of mining of fluorspar mineral (De-fluoridation) in connection to PIL no. 1168/2001 wherein it has mentioned that

*"The problem raised by the petitioners is serious in nature. Whatever arrangement has been made by the State to make the drinking water available, can have problem at times. In the circumstances, the interest of justice will be served if a Committee of three members headed by the Executive Engineer is constituted by the State in district Sirohi to receive any complaint regarding the subject matter and for making the drinking water available to the Citizens. If any such complaint is made, the Committee concerned will consider the same: and pass necessary reasoned order. We have been assured by Shri Laxman Ram Sundesha, Executive Engineer, personally present before us that all efforts are being taken and would be taken to make the drinking water available. He has further informed us that some more money has been sought from the State Government to improve the functioning, which is in process. In these circumstances, the officer concerned in the district shall ensure that the drinking water is made available periodically from the Hand pumps having the treatment plant (machines) so that the citizens get the drinking water. With these observations, we do not think that it is necessary to keep this petition pending only to monitor, which would be done now by the Committee concerned.*

*Accordingly the writ, petition stands disposed of.*

4. The Committee observed in the details the order of Hon'ble High Court, Jodhpur. However, in the affidavit filed by State Government there is an option for mining of fluorspar mineral. The EAC observed that the EC was granted vide Lr No. J-11015/03/1999-IA-II (M) dated 30th March, 2000 under EIA 1994 and was valid for 5 years only. The EIA Notification (as amended) does not permit the above amendments and as per applicable rules & regulations PP has option to apply afresh for grant of EC. The Committee therefore **returned the proposal in present form** and asked the PP to apply afresh for grant of Term of Reference (ToR).

**(2.21). Proposed Manganese Ore Mining of M/s Special Blasts Limited, with proposed production capacity of Manganese ore 4000.0TPA. The total mine lease area is 15ha, the mine lease area is located at Miragpur Forest Compartment No. 551 (East), Miragpur Forest, Katangi, Tehsil, Balaghat District, Madhya Pradesh (MLA: 15 ha)) (File No. J-11015/29/2019-IA-II(M); Proposal no. IA/MP/MIN/94859/2019)-Consideration of ToR.**

The proposal of M/s Special Blasts Limited is for mining of Manganese Ore with production capacity of 4000.0TPA. The total mining lease area is 15 ha, the mine lease area is located at Miragpur Forest Compartment No. 551 (East), Miragpur Forest, Katangi, Tehsil, Balaghat District, Madhya Pradesh. The mining lease area lies between Latitudes & Longitudes

S.No	Latitudes	Longitudes
1	21 <sup>0</sup> 38' 02.00" N	79 <sup>0</sup> 47'23.77" E
2	21 <sup>0</sup> 37' 53.40" N	79 <sup>0</sup> 47'18.00" E
3	21 <sup>0</sup> 37' 52.09" N	79 <sup>0</sup> 47'28.98" E
4	21 <sup>0</sup> 37' 57.90" N	79 <sup>0</sup> 47'43.40" E
5	21 <sup>0</sup> 38' 02.50" N	79 <sup>0</sup> 47'40.30" E
6	21 <sup>0</sup> 38' 01.36" N	79 <sup>0</sup> 47'33.90" E

The Mine lease area is located on Survey of India Toposheet no. 55 O/10 & 14. The proposal was considered as category 'A' as Interstate Boundary between Madhya Pradesh & Maharashtra at 4.7 Km.

PP reported that the present Mining lease area is very old and has been worked for Manganese ore in the past, which was subsequently closed as the area comes under Forest in 1980 by Govt. of Madhya Pradesh. Further M/s Special Blasts Ltd have applied for Grant of Mining lease on 02.05.2008, accordingly Govt. of Madhya Pradesh vide order No. F-2-173/2008/12-1, dated 16.01.2013 granted the mine lease area an area of 15 Ha in the name of M/s Special Blasts Limited, subsequently the lease deed is executed on 12.01.2017 by the State Government of Madhya Pradesh.

PP reported that the total mine lease area is 15ha which is a part of protected forest Compartment no. 550 of Khairlangi Range, District Balaghat. PP also reported that the mine plan has been approved by the IBM vide letter F.No.MP/Balaghat/Manganese/MPLN/G-10/16-17 dated 09.01.2017 over the 15ha in the name of M/s Special Blasts Limited. Total volume of mineralized dumps existing in the lease area is 70,900 M3. Mineral recovery from existing erstwhile dump (considered peak production): 4252.5 TPA Proposed production from Mine: 4000.0 TPA Total Production including recovery from Mineral dump: 8252.5 TPA ha. The life of mine is 5.3 years. The method of mining will be carried out by opencast conventional mechanized mining. There is no top soil or over burden generation during the mining activities.

The Present mine lease area is very old and has been worked for Manganese Ore in the past, which was subsequently closed as the area comes under Forest in 1980 by Govt. of Madhya Pradesh. Hence, part of the proposed area and large dimension mining pit is in existence along with the two dumps. PP reported that the

total water requirement is 50 KLD which will be sourced from mine pit, for dust suppression, plantation and Domestic purpose.

Project Proponent reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar sites and Tiger/Elephant Reserves located within the radius of 10 km of the mine lease are. The Garra South Reserve Forest is located at 0.3 Kms., Garra North Reserve Forest is located at 2.0 Kms., Kapurwihiri Reserve Forest is located at 0.18 Kms., Phulchur Reserve Forest is located at 7.6 Kms., Mohgaonghat Reserve Forest is located at 6.0 Kms.

PP also reported that in the ML area, one seasonal gully is developed due to rain. Water tank is present at 200 m in South West direction Bawanthadi river – 4.6 Kms., Rajiv Sagar Left Bank Canal – 2.45 Kms., Dhoriya Nallah – 7.0 Kms.

Based on the discussion held and documents submitted by the PP during the meeting, the Committee **deferred** and EAC is of the view that proposal may be considered only after submission of the following requisite documents/clarifications:

- I. The Committee observed that there is water tank nalla inside the mine lease area, However, the mitigation measures have not properly addressed by the PP. PP should clearly bring out the safeguards for protecting the river, Nallah, water bodies exist in and around the mine lease are from the operation of the mine.
- II. The 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 ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- III. PP reported that the total volume of mineralized dumps existing in the lease area is 70,900 M3. Mineral recovery from existing erstwhile dump (considered peak production): 4252.5 TPA Proposed production from Mine: 4000.0 TPA Total Production including recovery from Mineral dump: 8252.5 TPA ha. There is no top soil or over burden generation during the mining activities. The committee observed that PP mentioned the total volume of mineralized dumps existing in the lease area is 70,900 M3 and proposed to Mineral recovery from existing erstwhile dump (considered peak production): 4252.5 TPA there is a discrepancy in the quantity of mineral mentioned by PP. Therefore the Committee suggested that the PP shall revise w.r.t. production capacity of Manganese, details of total excavation overburden/Top soil, also suggested the mineral quantity measurements should be in TPA only,

so that the EIA/EMP report can reflect the impact of total excavation of mineral/ OB/ Top soil etc.

- IV. PP also needs to submit the full details of dumps existing in the mine lease area location of the dumps, total quantity of Mineral, waste, O.B, Top Spoil etc duly authenticated by the Department of Mines and Geology, Government of Madhya Pradesh
- 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.
- VI. The Form-I and PFR PP should mention the total excavation quantity in TPA should be clearly provided in the PFR. The impact should also be ascertained for the total excavation.
- VII. PP need to submit the Status of Forest Clearances.

**(2.22).Proposed Khad-Moosiang limestone Deposit of M/s Cement International Limited with production is 1,25,228 TPA of limestone, 74000 TPA of sandstone & 44575 TPA of soil. The Mine lease area is 4.75 ha. The mine is located at Village Lumshnong, Thana Narpuh, District Jaintia Hills, Meghalaya.(File No:J-11015/30/2019-IA-II(M);Proposal No: IA/ML/MIN/94825/2019;Consultant M/s Udaipur Mintech Pvt.Ltd)-Consideration of TOR**

The proposal of M/s Cement International Limited is for production of 1,25,228 TPA of limestone, 74000 TPA of sandstone & 44575 TPA of soil having mining lease area 4.75 ha The mine is located at Village Lumshnong, Thana Narpuh, District Jaintia Hills, Meghalaya. The Project Proponent submitted that mining lease area is coming under Survey of India Topo-Sheet No 83 C/8 (Old) or 83C/SW (New) and falls between Latitude- 25° 09' 49.14" to 25° 09' 49.38"N Longitude- 92° 22' 44.46"to 92° 22' 45.12"E.The Mining lease lies in seismic Zone V. The proposal was considered as category 'A' as Narpuh wildlife Sanctuary is at a distance of approx. 3.5 km towards SSE direction from mining lease boundary. The Eco-Sensitive Zone is located at 2.3KM.

The Mining lease vide letter no. MG.28/2010/116. dated 21<sup>st</sup> December 2010 was granted in favour of M/s Cement International Limited for a period of twenty (20) years by the Department of Mining & Geology, Government of Meghalaya. The life of the mine is 6.0 years. PP reported that the mining will be carried out opencast

mechanized with drilling and blasting. PP reported that waste dump will be dump outside the mine lease area, 100m away from the mine lease area, the land is owned by Mrs. Lovely Gympad. PP submitted the No Objection Certificate vide Memo No.REV/MIN-56/2012/9-(a) dated Jowai, 22<sup>nd</sup> February, 2012 for disposal of industrial waste/mud from the quarries of Cement International Ltd b by the Deputy Commissioner, Jaintia Hills District, Jowai, Government of Meghalaya.

PP reported that Narpuh wildlife Sanctuary is located at a distance of 3.51 km towards SSE direction from mining lease boundary. The Eco-Sensitive Zone is located at 2.3KM. The PP needs NBWL clearance. PP also submitted a copy of letter no JH/CIL/2018-19/447/A/451 dated Jowai, 20<sup>th</sup> August, 2018 from the Office of the Divisional Forest Officer (Territorial) Jaintia Hillas District: Jowai, Government of Meghalaya stating that the above mine lease area is located 3.51km away from the Narpuh wildlife Sanctuary and 2.31 km away from the eco-sensitive zone declared vide notification no. S.O. 2942(E) dated 6<sup>th</sup> September, 2017. PP also submitted the copy of letter No.MFG.16/50/CIL/7781 dated Shillong 29<sup>th</sup> August, 2018 has been confirmed that the mine lease area is outside the Eco Sensitive Zone.

The total cost of the project is 1Crore. PP reported that the total water requirement is about 16.3 KLD(8.5 KLD (Drinking & Domestic Uses), 3.0 KLD (Dust Suppression) and 4.8 KLD for Green Belt. The water will be supplied from the nearby village.

Based on the discussion held and documents submitted by the PP during the meeting, the Committee **the Committee returned the proposal in present form** and so that PP can apply along with following information.

- I. The Committee during the presentation, the KML file was analyzed on Google Earth, it was observed that the Mining activity is carrying out and the Committee is on the view that the Ministry may seek the clarification from the Department of Mines and Geology, Government of Meghalaya.
- II. PP Mentioned in the Form-I 1,25,228 TPA of limestone, 74000 TPA of sandstone & 44575 TPA of soil ha. However, PP had obtained mining lease only for Limestone over the mining lease area of 4.75 ha, thus, PP may be need to revise the Form-I with clear details of production of Mineral, waste generation, over burden, Inter burden, Topsoil., etc.
- III. Total excavation from the Mining lease w.r.t. Total excavation of Limestone, waste, O.B/I.B, Top Spoil etc. should be clearly mentioned in the Form-I.
- IV. PP reported that waste dump will be dump outside the mine lease area, 100m away from the mine lease area, the land is owned by Mrs. Lovely Gympad, however as per EIA notification, 2006 the Dump outside Mine lease area is not allowed.

- V. PP need to provide detailed land break up involved in the mine lease area.
- VI. PP need to submit the Status of Forest Clearances and Wild Life Clearances.
- VII. PP needs to submit the MAP clearly demarcating the distance from the mine lease area to ESZ and Narpuh wildlife Sanctuary authenticated by the Chief Wild Life Warden, Govt. of Meghalaya.

**(2.23). Production of 2.96 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) by manual mining method from the mining lease area 31.59 Ha (mineable area 14.84 Ha) (in Dangri river bed) located at Village Kot and Dabkori, Tehsil & District Panchkula, Haryana by M/s Krishna Enterprises. [File No J-11015/32/2018-IA.II (M); Proposal No: IA/HR/MIN/72516/2018]-Amendment in TOR.**

The initial proposal of M/s Krishna Enterprises is for production of 12.5 Lakh TPA of Boulder, Gravel and Sand minor mineral from Dangri river bed having mining lease area of 31.59 Ha located at Village Kot & Dabkori, District – Panchkula, Haryana. The mining lease area is located on Survey of India Topo-sheet no. H43K14. The area falls between Latitude -30°38'14.61" N to 30°39'11.14" N Longitude - 76°57'16.64" E to 76°57'48.78" E. The Mining lease area falls in seismic zone IV.

The Proposal was considered in EAC meeting held on 29th November, 2018 wherein the Committee recommended the proposal for grant of ToR for "**Production of 2.96 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) by manual mining method from the mining lease area 31.59 Ha (mineable area 14.84 Ha) (in Dangri river bed) located at Village Kot and Dabkori, Tehsil & District Panchkula, Haryana by M/s Krishna Enterprises**". The Ministry after considering the recommendation of EAC granted ToR on 17.12.2018 for Production of 2.96 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) by manual mining method from the mining lease area 31.59 Ha (mineable area 14.84 Ha) (in Dangri river bed) located at Village Kot and Dabkori, Tehsil & District Panchkula, Haryana by M/s Krishna Enterprises.

2. The PP now applied for amendment in ToR for increasing the production capacity and use of Machinery other than scraper. The proposal was placed in EAC meeting held on 25-26 March, 2019. During the presentation PP submitted that project is not economically viable at this rate of production as compared to what previously estimated by the PP. The PP also submitted that for handling of boulder JCB should be allowed.

The Committee is of the view that environmental concern is always above the economic concerns and PP first demonstrate its Commitment towards the

environment by executing the project at the recommended capacity and method already recommended by earlier EAC. The Order of Hon'ble NGT dated 5.09.2018 in O.A. 44 of 2016 was also shown to the PP wherein it has been mentioned that mining in river width up to 100 meters should be manual. The Committee is of the view that earlier EAC appraised the project in details and considering all the environmental concerns restricted the production capacity and method of mining from this project. Thus, the recommendation of the earlier EAC made during meeting held on 29th November, 2018 should be 'status quo'. The Committee also reiterates recommendation of the earlier EAC that mining lease being on a Non-Perennial River requires the actual replenishment study report before the grant of EC. Based on the discussion held and documents submitted the Committee **returned the proposal in present from** the proposal.

**(2.24). Production of 3.87 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 45.00 Ha (net mineable area 19.3591 Ha) (Dangri River Bed) located at Village Shamtoo and Rattewali, Tehsil & District Panchkula, Haryana by M/s Ganesh Enterprises [File No J-11015/31/2018-IA.II (M); Proposal No: IA/HR/MIN/72297/2018]-Amendment in TOR.**

The initial proposal of M/s Ganesh Enterprises is for production of 18.0 Lakh TPA of River Bed Material (Boulder, Gravel and Sand) from Mining lease area of 45.0 ha (Dangri River Bed) located at Village- Shamtoo, District- Panchkula, Haryana. The mining lease area is located on Survey of India Topo-sheet no. H43K14. The area falls between Latitude - 30°37'6.574" N to 30°37'40.71" N Longitude - 76°58'52.34" E to 76°59'29.10" E. The Mining lease area falls in seismic zone IV. The Proposal was considered in EAC meeting held on 29th November, 2018 wherein the Committee recommended the proposal for grant of ToR for "**Production of 3.87 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 45.00 Ha (net mineable area 19.3591 Ha) (Dangri River Bed) located at Village Shamtoo and Rattewali, Tehsil & District Panchkula, Haryana by M/s Ganesh Enterprises**". The Ministry after considering the recommendation of EAC granted the ToR on 17.12.2018 for production of 3.87 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 45.00 Ha (net mineable area 19.3591 Ha) (Dangri River Bed) located at Village Shamtoo and Rattewali, Tehsil & District Panchkula, Haryana by M/s Ganesh Enterprises.

2. The PP now applied for amendment in ToR for increasing the production capacity and use of Machinery other than scraper. The proposal was placed in EAC meeting held on 25-26 March, 2019. During the presentation PP submitted that project is not economically viable at this rate of production as compared to what previously estimated by the PP. The PP also submitted that for handling of boulder

JCB should be allowed. The Committee is of the view that environmental concern is always above the economic concerns and PP first demonstrate its Commitment towards the environment by executing the project at the recommended capacity and method already proposed by earlier EAC. The Committee also observed that in the documents submitted by other mine in the cluster the sheave analysis was done as per which boulder were not available due to this ToR was granted for extraction of sand and gravel. The Committee is of the view that earlier EAC appraised the project in details and considering all the environmental concerned restricted the production capacity and method of mining from this project. Thus, the recommendation of the earlier EAC made during meeting held on 29th November, 2018 should be 'status quo'. The Committee also observed that being a mining lease in cluster the EIA/EMP and Public Hearing should be strictly as per S.O. 141(E) dated 15.01.2016 (as amended). The Committee also reiterates recommendation of the earlier EAC that mining lease being on a Non-perennial River requires the actual replenishment study report before the grant of EC. Based on the discussion held and documents submitted the Committee **rejected/returned the proposal in present from** the proposal.

**(2.25). Production of 4.0 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 46.50 Ha 9net mineable area 34.25 Ha) (Dangri River Bed) located at Village Shamtoo, District- Panchkula, Haryana by M/s Starex Minerals [File No J11015/33/2018-IA.II (M); Proposal No: IA/HR/MIN/73803/2018;)-Amendment in ToR.**

The initial proposal of production of 20.0 Lakh TPA of Boulder, Gravel and Sand minor mineral from Dangri River Bed having mining lease area of 46.50 Ha located at Village Shamtoo and Rattewali, District – Panchkula, Haryana.. The mining lease area is located on Survey of India Topo-Sheet no. H43K14.The area falls between Latitude - 30°37'42.26" N to 30°38'33.59" N Longitude - 76°59'13.61" E to 76°59'18.54" E. The Mining lease area falls in seismic zone IV. The Proposal was considered in EAC meeting held on 29th November, 2018 wherein the Committee recommended the proposal for grant of ToR for "**Production of 4.0 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 46.50 Ha 9net mineable area 34.25 Ha) (Dangri River Bed) located at Village Shamtoo, District- Panchkula, Haryana by M/s Starex Minerals**".The Ministry after considering the recommendation of EAC granted the ToR on 17.12.2018 for Production of 4.0 Lakh TPA (up to 1 meter from Original Ground Level) of River Bed Material (gravel and sand) from the mining lease area 46.50 Ha 9net mineable area 34.25 Ha) (Dangri River Bed) located at Village Shamtoo, District- Panchkula, Haryana by M/s Starex Minerals

2. The PP now applied for amendment in ToR for increasing the production capacity and use of Machinery other than scraper. The proposal was placed in EAC

meeting held on 25-26 March, 2019. The PP did not attend the meeting. The Committee is of the view that environmental concern is always above the economic concerns and although PP did not attend the meeting but like similar case PP first demonstrates its Commitment towards the environment by executing the project at the recommended capacity and method already proposed by earlier EAC. The Committee also observed that in the documents submitted by the PP while grant of ToR, sieve analysis was done and as per which boulder are not available in the mining lease due to this ToR was granted for extraction of sand and gravel. The Committee is of the view that earlier EAC appraised the project in details and considering all the environmental concerned restricted the production capacity and method of mining from this project. Thus, the recommendation of the earlier EAC made during meeting held on 29th November, 2018 should be 'status quo'. The Committee also observed that being a mining lease in cluster the EIA/EMP and Public Hearing should be strictly as per S.O. 141(E) dated 15.01.2016 (as amended). The Committee also reiterates recommendation of the earlier EAC that mining lease being on a Non-perennial River requires the actual replenishment study report before the grant of EC. Based on the discussion held and documents submitted, the Committee **returned the proposal in present form.**

**(2.26). Extension of Validity of TOR for Enhancement of Devarmalai Limestone Mine production from 0.8 MTPA to 2.5 MTPA by M/s Chettinad Cement Corporation Pvt. Ltd. located at Devarmalai and Melapaguthi village, kadavur Taluk, Karur District, Tamil Nadu (MLA 166.635ha) [File No: J-11015/414/2006/-IA.II (M)]; Proposal No: IA/TN/MIN/76721/2015)- Extension of validity of ToR.**

The Proposal of M/s Chettinad Cement Corporation Pvt. Ltd. is for extension of validity of ToR granted vide Lr No J-11015/414/2006/-IA.II (M) dated 31.08.2015 for Enhancement of Devarmalai Limestone Mine production from 0.8 MTPA to 2.5 MTPA located at Devarmalai and Melapaguthi village, kadavur Taluk, Karur District, Tamil Nadu (MLA 166.635ha).

The PP submitted that ToR was valid till 30.08.2018 and PP applied for extension of validity of ToR on 28.07.2018. Being a brown filed project the Ministry raised EDS wherein past production details etc. were sought from PP for examining the proposal in light of Common Cause Order dated 2.08.2017 and S.O. 804(E) dated 14.03.2017. The PP now submitted the requisite information and proposal is placed in EAC Meeting. The Committee observed that PP has mentioned that delay in submission of EIA/EMP report is due to delay in conducting public hearing by TNSPCB.

The Committee therefore **recommended** the proposal for extension of validity of ToR for one year i.e. up to 30.8.2019 subject to examining the matter in light of Common Cause Order dated 2.08.2017, S.O. 804(E) dated 14.03.2017 and

submission of undertaking in pursuant to Ministry's O.M. dated 30.05.2018 for compliance of Common Cause Order and other statutory requirement.

**(2.27). Extension of time limit for validity of TOR for Ramachandrapuram-Jirupalem Mineral Sands of M/s Andhra Pradesh Mineral Development Corporation Limited located at Villages - Ramachandrapuram, Tekkali, Narayana Gajapati Raju puram, Kollibhimavaram, Kotchcheral, Mentada, Kotapalem and Jirupalem, Ranastalam – Mandal, Srikakulam- District, Andhra Pradesh (MLA: 1284.0ha) [File No J-11015/405/2015-IA.II(M); Proposal No. IA/AP/MIN/32491/2015;Consultants: Vimta Labs Ltd]- Extension of validity of TOR**

The proposal of M/s Andhra Pradesh Mineral Development Corporation Limited is for extension of validity of TOR granted by Ministry vide letter No. J-11015/405/2015-IA.II (M) Dated 12.01.2016 for Production of Heavy Mineral Sand Mines 8.0 MTPA (ROM) and for the Production of Heavy Mineral Concentrate. The Mining Lease area is (MLA: 1284.0 ha) located at Villages -Ramachandrapuram, Tekkali, Narayana Gajapati Raju puram, Kollibhimavaram, Kotchcheral, Mentada, Kotapalem and Jirupalem, Ranastalam – Mandal, Srikakulam- District, Andhra Pradesh-State. The mining lease is fall between Latitude 18°05'22.071" to 18°05'27.789", 18°09'34.583" to 18°09'24.236" and Longitude 83°40'.51.686" to 83°39'41.53" 83°47'58.817" to 83°48'.15.634". The Project involves mining of beach sand and separation of heavy minerals.

2. In the instant case TOR was granted on 12.01.2016 and it was valid till 11.01.2019. The PP applied online for extension of validity of TOR vide proposal no IA/AP/MIN/32491/2015 dated 06.02.2019. Further, as per Ministry's OM No. J-11013/41/2006-IA-11 (I) (Part) Dated 29th August, 2017 regarding extension of validity of the TOR it has mentioned that "*The above validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the TORs. After the lapse of validity, such extension will need EAC/SEAC consideration*". In the instant case PP has uploaded the updated Form I and submitted that delay in submission of EIA/EMP Report is due to preparation of village Khasra Map, forest map within the mining lease area and DGPS survey for the forest boundary is under progress and therefore requested for extension of validity of ToR.

3. The Committee also observed that Ministry of mines Vide its notification G.S.R. 134(E) dated 20.02.2019 mentioned the threshold value of atomic minerals wherein at S. No. 12 it has mentioned that "*beach sand minerals i.e. economic heavy minerals found in the teri or beach sand, which include ilmenite, rutile, leucoxene, garnet, monazite, zircon and sillimanite*". This means that beach sand is now treated as atomic mineral and the mining plan for the same needs to be approved by Atomic Minerals Directorate for Exploration and Research. Based on the discussion held and

document submitted the Committee **recommended the proposal to extend the validity of ToR** for one more year i.e. till 11.01.2020 for preparation of EIA/EMP Report. The Committee also prescribed an additional condition that mining plan needs to be approved by Atomic Minerals Directorate for Exploration and Research the Competent authority for the approval of mining plan.

**(2.28). Extension of time limit for validity of TOR for Kuppli-Koyyam-Dharmaram Mineral Sands Deposit-I of M/s Andhra Pradesh Mineral Development Corporation Limited located at Villages – Kuppilli, Koyyam, Dharmavaram, and Bonthalakoduru, Etcherla–Mandal, Srikakulam- District, Andhra Pradesh (MLA: 1000.0ha)[File No J-11015/407/2015-IA.II(M) ;Proposal No. IA/AP/MIN/32589/2015; Consultants: Vimta Labs Ltd.] - Extension of validity of TOR**

The proposal of M/s Andhra Pradesh Mineral Development Corporation Limited is for extension of validity of TOR granted by Ministry vide letter No. J-11015/407/2015-IA.II(M) Dated 12.01.2016 for Production of Heavy Mineral Sand Mines 4.0 MTPA(ROM) and for the Production of Heavy Mineral Concentrate 333 TPH. The Mining Lease area is (MLA: 1000.0 ha) located at Villages – Kuppilli, Koyyam, Dharmavaram, and Bonthalakoduru, Etcherla–Mandal, Srikakulam- District, Andhra Pradesh-State. The mining lease fall between Latitude 18o09'28.27" to 18o09'44.14", 18o12'33.03" to 18o12'55.10" and Longitude 83o48'29.91" to 83o48'07.76" 83o55'55.28" to 83o56'06.47". The Project involves mining of beach sand and separation of heavy minerals.

2. In the instant case TOR was granted on 12.01.2016 and was valid till 11.01.2019. The PP applied online for extension of validity of TOR vide proposal no IA/AP/MIN/32589/2015 dated 06.02.2019. Further as per Ministry's OM No. J-11013/41/2006-IA-11 (I) (Part) Dated 29th August, 2017 the Validity of the TOR can be extended for one more year. In the OM it has mentioned that "*The above validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the TORs. After the lapse of validity, such extension will need EAC/SEAC consideration*". In the instant case PP has uploaded the updated Form I and submitted that delay in submission of EIA/EMP Report is due to preparation of village Khasra Map, forest map within the mining lease area and DGPS survey for the forest boundary is under progress and therefore requested for extension of validity of ToR.

3. The Committee also observed that Ministry of mines Vide its notification G.S.R. 134(E) dated 20.02.2019 mentioned the threshold value of atomic minerals wherein at S. No. 12 it has mentioned that "*beach sand minerals i.e. economic heavy minerals found in the teri or beach sand, which include ilmenite, rutile, leucoxene, garnet,*

*monazite, zircon and sillimanite*". This means that beach sand is now treated as atomic mineral and the mining plan for the same needs to be approved by Atomic Minerals Directorate for Exploration and Research. Based on the discussion held and document submitted the Committee **recommended the proposal to extend the validity of ToR** for one more year i.e. till 11.01.2020 for preparation of EIA/EMP Report. The Committee also prescribed an additional condition that mining plan needs to be approved by Atomic Minerals Directorate for Exploration and Research the Competent authority for the approval of mining plan.

**(2.29). Extension of time limit for validity of TOR for Kuppli-Bontalkoduru Mineral Sands of M/s Andhra Pradesh Mineral Development Corporation Limited located at Villages – Kuppilli, Koyyam, Dharmavaram, and Bonthalakoduru, Etcherla– Mandal, Srikakulam-District, Andhra Pradesh (MLA:1049.60ha)[File No J-11015/406/2015-IA.II(M); Proposal No. IA/AP/MIN/32587/2015; Consultants: Vimta Labs Ltd.] - Extension of validity of TOR**

The proposal of M/s Andhra Pradesh Mineral Development Corporation Limited is for extension of validity of TOR granted by Ministry vide letter No. J-11015/406/2015-IA.II (M) Dated 12.01.2016 for Production of Heavy Mineral Sand Mines 4.0 MTPA (ROM) and for the Production of Heavy Mineral Concentrate 333 TPH. The Mining Lease area is (MLA: 1000.0 ha) located at Villages – Kuppilli, Koyyam, Dharmavaram, and Bonthalakoduru, Etcherla–Mandal, Srikakulam-District, Andhra Pradesh-State. The mining lease fall between Latitude 18°09'28.27" to 18°09'44.14", 18°12'33.03" to 18°12'55.10" and Longitude 83°48'29.91" to 83°48'07.76" 83°55'55.28" to 83°56'06.47". The Project involves mining of beach sand and separation of heavy minerals.

2. In the instant case TOR was granted on 12.01.2016 and was valid till 11.01.2019. The PP applied online for extension of validity of TOR vide proposal no IA/AP/MIN/32589/2015 dated 06.02.2019. Further as per Ministry's OM No. J-11013/41/2006-IA-11 (I) (Part) Dated 29th August, 2017 the Validity of the TOR can be extended for one more year. In the OM it has mentioned that "*The above validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the TORs. After the lapse of validity, such extension will need EAC/SEAC consideration*". In the instant case PP has uploaded the updated Form I and submitted that delay in submission of EIA/EMP Report is due to preparation of village Khasra Map, forest map within the mining lease area and DGPS survey for the forest boundary is under progress and therefore requested for extension of validity of ToR.

3. The Committee also observed that Ministry of mines Vide its notification G.S.R. 134(E) dated 20.02.2019 mentioned the threshold value of atomic minerals wherein

at S. No. 12 it has mentioned that "*beach sand minerals i.e. economic heavy minerals found in the teri or beach sand, which include ilmenite, rutile, leucoxene, garnet, monazite, zircon and sillimanite*". This means that beach sand is now treated as atomic mineral and the mining plan for the same needs to be approved by Atomic Minerals Directorate for Exploration and Research. Based on the discussion held and document submitted the Committee **recommended the proposal to extend the validity of ToR** for one more year i.e. till 11.01.2020 for preparation of EIA/EMP Report. The Committee also prescribed an additional condition that mining plan needs to be approved by Atomic Minerals Directorate for Exploration and Research the Competent authority for the approval of mining plan.

**(2.30). Beneficiation Plant of M/s Jindal Stainless Limited, located at Village – Kaliapani, Tehsil-Sukinda, District-Jajpur, Odisha (MLA: 89 ha) (File No: J-11015/163/2016-IA-II (M); Proposal no: IA/OR/MIN/53974/2016).**

The project proponent, M/s Jindal Stainless Limited requested the Ministry to operate the Chrome Ore Beneficiation Plan (COBP) for enhancement capacity of the COBP plant from 36,000 TPA to 60,000 TPA for which the EC was granted by the Ministry vide letter dated 24.02.2016. The PP submitted that the two EC were granted by the Ministry. The details are as below:

- (i) EC vide letter no. J-11015/12/2000-IA-II (M) dated 13.02.2001 for mining of Chromite with the production capacity of 0.10 MTPA in the mine lease area of 89.0 ha.
- (ii) EC vide letter no. J-11015/369/2009-IA-II (M) dated 24.02.2016 for Chrome Ore Beneficiation Plan (COBP) for enhancement capacity of the COBP plant from 36,000 TPA to 60,000 TPA.

It is submitted the mine lease area is 89 ha having the both activities within the same MLA, i.e. mining of Chromite ore as well as Chrome Ore Beneficiation Plant. It is further submitted that the Ministry has granted EC vide letter no J-11015/12/2000-IA-II (M) dated 13.02.2001 for mining of Chromite with the production capacity of 0.10 MTPA under the provisions of the EIA Notification, 1994. The PP has submitted application for TOR for enhancement of production capacity from 1,00,000 TPA to 2,15,000 TPA for the same lease. The proposal was placed in EAC in its meeting held during 27-28 April, 2017 wherein the Committee recommended the proposal for grant of standard TOR conditions subject to submission of authenticated past production details to ascertain violation of EIA notification, if any.

Based on the past production capacity submitted by PP, the matter was examined in the Ministry wherein it was ascertained that this is a case of violation, and accordingly the Ministry has issued the direction for "Closure of Mining Operation" vide letter No. J-11015/163/2016-IA-II (M) dated 21.02.2018. It is also submitted that the Hon'ble Supreme Court's order dated 02.08.2017 in the matter of Common Cause vs Union of India, it was interpreted that EC which were accorded under the

EIA Notification, 1994 is validity only for 5 years, i.e. EC dated 13.02.2001 granted for mining activity is not valid. PP has obtained separate EC for mining (in 2001) and beneficiation (in 2016). Thus, the Ministry has issued closure direction for mining operation on 21.02.2018 and not issued any closure direction for beneficiation plant

The PP submitted that a Revision Application bearing No. 22/(47)/2013/RC-I before the Revision Authority, Ministry of Mines, New Delhi under the MMDR Act, 1957. The PP further submitted that the Hon'ble Revision authority have considered the submission of the company, passed an order on the date of hearing 10.05.2018 with the direction that *"the impugned order be 'stayed' till the next date of hearing. It is further directed the State Government to submit their response/comments at the earliest with a copy to Revisionist so as to enable them to submit counter-reply, if any. In addition, the State Government shall not take any coercive measures to recover the amount specified in the impugned order"*. Thus, the PP stated that the SC judgment in Common Cause is not applicable to the Company and the PP requested to seek necessary direction to continue the mining operation and cancel the earlier direction vide letter No. J-11015/163/2016-IA-II (M) dated 21.02.2018 regarding "Closure of Mining Operation" in the interest of justice.

The PP requested Ministry again to continue the beneficiation plant, because the Ministry has issued closure direction for mining operation only not for beneficiation plant. PP also submitted that the separate EC granted to M/s. JSL, vide letter no. J-11015/369/2009-IA-II (M) dated 24.02.2016 for Chrome Ore Beneficiation Plan (COBP) for enhancement capacity of the COBP plant from 36,000 TPA to 60,000 TPA.

The matter has been discussed in the Ministry with Competent Authority with respect to the mining and beneficiation processes and it is proposed that the Ministry may seek further requisite information about the beneficiation plant and also the quantity of materials present in the beneficiation plant needs to be authenticated by State Mines and Geology Department from the project proponent. The PP submitted the response on 03.10.2018 for the Ministry letter dated 26.09.2018. However, the PP has not submitted the authenticated letter from the State Mines and Geology Department for quantity of materials in the beneficiation plant.

The matter was again discussed in the Ministry with competent authority and proposed that the Ministry may ask the RO, Bhubaneswar to vet the report submitted by PP on 03.10.2018 and submit compliance report for both the EC's. In addition, the Competent Authority also suggested to take advice from the EAC in this matter. The RO, Bhubaneswar submitted the report vide letter dated 13.02.2019 which is mentioned that no mining activity is going on the site. Therefore, the status of several operational conditions could not be assessed. However, other stipulated conditions are complied or is in process of complying by Pas. The RO, Bhubaneswar has sent a letter to PP for taking necessary action on the non-compliance observed during monitoring on 10.01.2019. The RO, Bhubaneswar again submitted the report vide letter dated 07.03.2019 and mentioned that "PAs have submitted action taken report vide letter no. JSL/KLPN/2019/23 dated 18.02.2019 which was received by this Office

on 21.02.2019. As per the action taken report, which is required to be verified in the next round of monitoring”.

The project proposal is placed in this EAC meeting. Based on the presentation made by PP and discussion held, the Committee observed that the closure direction for mining operation only. However, the Committee is of the view that the beneficiation plant present in the inside of the mine lease area and suggested that the accessing of dumps/waste for beneficiation also a mining process and it is not a separate process.

The Committee also observed that the hearing against the demand notice at Revision Authority, Ministry of Mines is still pending and the closure notice is also issued for mining operation.

Therefore, the **Committee deferred the proposal** and suggested that without the revoking the closure notice the beneficiation plant might not be continued because the accessing of dumps/waste for beneficiation also a mining process and it is not a separate process. The Committee also observed that the PP has not submitted the requested authenticated letter from State Mines and Geology Department for quantity of materials in the beneficiation plant.

**(2.31). Appraisal of Replenishment Study Report prepared for EC granted to M/s Mahadev Enclave Pvt. Ltd. by SEIAA, Bihar in pursuance of the Hon'ble Supreme Court Order dated 22.11.2018 [WP(C) 11808 of 2016 in the matter of Aman Kumar Singh Vs. State of Bihar & Ors.]**

The Hon'ble Supreme Court in its Order dated 22.11.2018 [WP(C) 11808 of 2016 in the matter of Aman Kumar Singh Vs. State of Bihar & Ors directed MoEF&CC to take decision on the replenishment study report prepared for the 19 mining lease for which ECs were granted by SEIAA, Bihar to M/s Mahadev Enclave Pvt. Ltd.

2. The proposal was considered in the EAC Meeting held on 22-23 January, 2019 & 19-20 February, 2019 and certain information were sought from State Govt & PP. The State Govt & PP submitted the information and proposal is now placed in EAC meeting held on 25-26 March, 2019. The Committee persuaded the information submitted by SEIAA Bihar, DMG, Bihar and Project Proponent and after detailed discussion following observations are made:

- a) The Committee observed that in principal approval for grant of mining concession was given by State Govt vides Lr No. 754 dated 10.11.2014 . The Mining plan was approved by Department of Mines & Geology, Govt of Bihar vide Lr No 896 dated 10.03.2015. The agreement was made between Governor of Bihar & M/s Mahadev Enclave Pvt. Ltd on 20.05.2015, 12.08.2016, 23.08.2017 & 7.09.2018. The 19 Environmental Clearance were granted by SEIAA, Bihar on 14.03.2016.
- b) In the mining plan approved by DMG, Bihar vide Lr No 896 dated 10.03.2015, total lease hold area was mentioned as 284 Ha covering five stretch of rivers (Chandan River- 243 Ha; Badua River- 18.90 Ha; Odhni River- 2.50 Ha; Sukhniya River-2.30 Ha; and Cheer River-17.39 Ha) having 32 Blocks . But,

the total area for which 19 ECs were granted is 135.39 Ha. It is not clear that how an agreement was made without mentioning the area of mining lease. Dy. Director Department of Mining & Geology, Govt of Bihar who was present during the meeting informed the EAC that the entire river stretch was granted to PP for mining. The PP selects the area suitable for mining and prepare mining plan through its RQP. Once the mining plan is approved, PP has to obtain the EC from Regulatory Authority and after grant of EC work order will be granted only for the area for which EC is granted. The area which is not covered in EC remains as it is. The EAC is of the view as the State Govt. is empowered to grant mining concession & approve mining plan as per prevailing Minor Mineral Concession Rules of Bihar. The Department of Mining & Geology may substantiate the facts to Hon'ble Supreme Court, if required.

- c) It is observed that the mining plan was available for 284 Ha having 32 blocks, these 19 ECs granted by SEIAA, Bihar are amongst these 32 blocks. The SEIAA Bihar has submitted that the decision to grant EC to 19 blocks (under B1 and B2 category) were taken after advice of Learned Advocate General of the State of Bihar.

The Committee felt that SEIAA Bihar should have been sought clarification from the MoEF&CC as the Ministry has formulated and notified the notification dated 15.01.2016. Records available with MoEF&CC suggests that no such clarification were called or sought from MoEF&CC by SEIAA..

- d) The SEIAA-Bihar in its letter mentioned about the Hon'ble NGT Order dated 22.08.2016 wherein inter-alia it has mentioned that

*"On a careful examination of the 19 ECs in question granted in favour of the Respondent No 7, we find these have been issued in due compliance of the procedure prescribed under EIA Notification 2006 as amended from time to time."*

As the Hon'ble NGT had examined the matter, this Committee felt no authority to comment on the matter, exceptionally when it is before Hon'ble Supreme Court..

However, as per file record PP previously applied for Term of Reference (ToR) to the MoEF&CC for total mining lease area 284 Ha. The ToR was issued to PP vide LR No. J-11015/95/2015-IA. II (M) dated 25.05.2015. The PP thereafter did not apply to the Ministry for grant of Environmental Clearance (EC) rather applied to SEIAA, Bihar for grant of EC. The SEIAA, Bihar considered these projects as B2 project and granted EC.

The EAC observed that although the individual sections of mining lease are less than 50 Ha but for considering them as an individual mining lease, separate letter of intent, separate mining plan, separate EC and separate lease deed is required. But in the instant case, the PP has submitted the Lr No 754 dated 10.11.2014 for in principal approval of State Government for grant of settlement and agreement made between Govt. of Bihar and Project Proponent for the year 2015, 2016, 2017 and 2018. There is no mention of area of

settlement in the letter dated 10.11.2014 and agreements made during 2015-2018.

The Dy. Director Department of Mining & Geology, Govt of Bihar informed the EAC that the entire river stretch was granted to PP for mining. The PP selects the area suitable for mining and prepare mining plan through its RQP. Once the mining plan is approved, PP has to obtain the EC from Regulatory Authority and after grant of EC, work order will be granted only for the area for which EC is granted. The area which is not covered in EC remains as it is.

The EAC was of the view as the State Govt. is empowered to grant mining concession as per prevailing Minor Mineral Concession Rules and Department of Mining & Geology may substantiate the facts to Hon'ble Supreme Court in this regard. Further clarification on grant of ECs may also be substantiated by SEIAA-Bihar to Hon'ble Supreme Court, if required.

- e) The DMG Bihar has submitted the past production details for the year 2015 wherein 2577891 Tonnes of material was dispatched from Jan-2015 to Dec-2015. The DMG Bihar in its previous letter mentioned that the mining operation commenced during F.Y 2016-17. The Ministry vide letter dated 19.03.2019 sought clarification from DMG, Bihar that the material dispatched mentioned for year 2015 in its letter was production in respect of mining leases of the project proponent or not. The Dy. Director, DMG, Bihar confirmed during the meeting that the production of year 2015 is material dispatched by PP for which permission was granted by State Govt of Bihar.

The EAC observed that mining carried out by Project Proponent during 2015 is without obtaining Environmental Clearance as ECs were granted on 14.03.2016, and therefore, it constitute violation of Common Cause Order dated 02.08.2017 and Ministry's Violation Notification S.O. 804(E) dated 14.03.2017.

The past production details submitted by DMG, Bihar for subsequent years 2016-17, 2017-18 and 2018-19 (up to Dec 2018) reveals that PP has exceeded production capacity in respect of EC granted vide Lr No 334 dated 14.03.2016, 325 dated 14.03.2016, 328 dated 14.03.2016, 327 dated 14.03.2016, 324 dated 14.03.2016 and 337 dated 14.03.2016. This also constitute the violation of Common Cause Order dated 2.08.2017 and S.O. 804(E) dated 14.03.2017.

In addition, from the production data, it was observed that during 2018-19, there is production of mineral in the month of July 2018 against the restriction imposed for any mining during the period of July, August and September as per the condition of EC granted vide Lr No 325 dated 14.03.2016 & Lr No. 324 dated 14.03.2016.

Thus, it is a violation of EC conditions. However, the Dy. Director, DMG, Bihar informed the Committee that production shown during July 2018 is primarily material mined during earlier month and dispatch made from stockyard during the period and not from any mining activity.

- f) **Replenishment Study Report:** The Committee noted that although the ECs were granted during F.Y 2016-17 but PP did not conduct the **replenishment study for year 2016-17**. M/s Overseas Min-Tech Consultant conducted **replenishment study for the said mining lease for F.Y 2017-18**. The estimated executable quantity as per Replenishment Study Report are as follows:

Sr.No.	EC No.	Date	Period	Gross Area of river under mining (sqm)	Drainage Density (m)	Catchment Area (m2)	Average Depth (m)	Executable RBM m3 (Drainage Density x Catchment Area)
1	330	04.03.2016	Pre-Monsoon	2,00,000	5,243	106	2.5	555758
			Post-Monsoon	2,00,000	5,998	106	2.5	635788
			Difference					<b>80030</b>
2	410	04.03.2016	Pre-Monsoon	39000	2609	70	3	182630
			Post-Monsoon	39000	2798	70	3	195860
			Difference in Volume					
3	379	04.03.2016	Pre-Monsoon	25000	1892	145	3	274340
			Post-Monsoon	25000	1875	145	3	268830
			Difference					<b>5510</b>
4	323	04.03.2016	Pre-Monsoon	120000	4213	102	3	429726
			Post-Monsoon	120000	4243	102	3	432786
			Difference in Volume					
5	328	04.03.2016	Pre-Monsoon	25000	890	75	2.5	66750
			Post-Monsoon	25000	1290	75	2.5	96750
			Difference					<b>30000</b>
6	334	04.03.2016	Pre-Monsoon	41000	2531	76	3	192356
			Post-Monsoon	41000	2568	76	3	195165
			Difference in Volume					
7	335	04.03.2016	Pre-Monsoon	45000	2699	88	3	237512
			Post-Monsoon	45000	2699	88	3	237512
			Difference in Volume					
8	220	04.03.2016	Pre-Monsoon	41000	2052	117	3	240084
			Post-Monsoon	41000	2085	117	3	243945
			Difference in Volume					
9	326	04.03.2016	Pre-Monsoon	36000	2921	124	3	362204
			Post-Monsoon	36000	2921	124	3	362204
			Difference in Volume					
10	325	04.03.2016	Pre-Monsoon	48900	2956	72	3	212832
			Post-Monsoon	48900	2996	72	3	215712
			Difference in Volume					
11	355	04.03.2016	Pre-Monsoon	28000	2010	92	3	184920
			Post-Monsoon	28000	2075	92	3	190900
			Difference in Volume					

12	324	04.03.2016	Pre-Monsoon	40000	1299	99	3	128601
			Post-Monsoon	40000	1359	99	3	134541
			<b>Difference in Volume</b>					
13	336	04.03.2016	Pre-Monsoon	180000	5421	112	3	607152
			Post-Monsoon	180000	5476	112	3	613312
			<b>Difference in Volume</b>					
14	354	04.03.2016	Pre-Monsoon	23000	1583	156	3	246948
			Post-Monsoon	23000	1600	156	3	249600
			<b>Difference in Volume</b>					
15	327	04.03.2016	Pre-Monsoon	15000	1154	77	3	88858
			Post-Monsoon	15000	1154	77	3	88858
			<b>Difference in Volume</b>					
16	332	04.03.2016	Pre-Monsoon	160000	4003	108	2.5	432324
			Post-Monsoon	160000	4059	108	2.5	438372
			<b>Difference in Volume</b>					
17	337	04.03.2016	Pre-Monsoon	28000	2421	114	3	275994
			Post-Monsoon	28000	2486	114	3	283404
			<b>Difference in Volume</b>					
18	331	04.03.2016	Pre-Monsoon	200000	5832	111	3	647352
			Post-Monsoon	200000	5865	111	3	651015
			<b>Difference in Volume</b>					
19	329	04.03.2016	Pre-Monsoon	29000	2204	88	2.5	193952
			Post-Monsoon	29000	2204	88	2.5	197032
		<b>Difference in Volume</b>						<b>3080</b>

The PP/Consultant in EAC Meeting held during 22-23 January, 2019 informed the Committee that the replenishment study report prepared for the F.Y 2017-18 is not based on the actual data collected in the field rather it is based on Cartosat-1 DEM data taken from Bhuvan Portal and by using Remote Sensing Techniques (Arc GIS 10.3.1 & Erdas imagine 2014 software).

The Committee observed that PP has calculated the Executable RBM in cubic meter (m<sup>3</sup>) by using the formula [Drainage Density (m) x Catchment Area (m<sup>2</sup>)]. But the formula for calculation of Drainage Density (m<sup>-1</sup>) is [length of river (m) /catchment area (m<sup>2</sup>)]. Thus, the Committee is of the view that above calculation will give the length of river streams not the volume of material deposited.

Further, this report did not provide detail about the section/locations on which there is an aggradation of RBM or Erosion of RBM. The Committee is of the view that without knowing the area and quantity of RBM aggradation PP cannot plan excavation activity in compliance to EC conditions.

The Committee also observed that there are certain calculation mistakes in volume of Executable RBM mentioned in the Replenishment Report of the ECs granted vide Letter No 379 dated 14.03.2016, Letter No 334 dated 14.03.2016 and Letter No 329 dated 14.03.2016.

Considering the above, and limited information available on the material replenished in the mining lease during the period, the Committee did not accept the Replenishment Study Report for 2017-18.

- g. The PP/consultant informed that the data was collected in the field by using DGPS for the replenishment study report prepared for the F.Y 2018-19, and the volume were calculated on post & pre-monsoon level. PP provided the CSV data file but couldn't provide the section wise calculation of the reserves. However, in the EAC meeting held during 19-20 February, 2019, PP submitted the section wise calculation of material replenished.

It was observed that the section wise mineral calculation is not supported by information on level of mineral deposition, area of aggradation and erosion. The section are drawn at an interval of 100 meters and last section at lower distance. The section area and volume has also been calculated based on the survey but on dividing the volume by area the distance between section is more than 100 meters.

The Committee observed that PP was unable to present the difference in level of mining lease before and after the monsoon season. The Committee asked the PP/Consultant who has prepared the replenishment study report for the validation of data and submit an undertaking that the data collected is factual correct. The consultant submitted that they need to verify the data before making any giving undertaking in this regard.

The Consultant presented the replenishment study for 2018-19 during the meeting held on 25-26 March, 2019, and showed the detailed section before the Committee wherein the level difference was shown. The Consultant presented the increase in height of deposition in tabular form with the photograph of sample collected for sieve analysis. The Consultant also informed the Committee that the calculation of volume is done through a software, which is doesn't have any manual interference.

The Committee agreed with the methodology for calculation of volume of deposition carried out by using the cross sectional method, but express that improvement can be made by delineating:

- i) shorter inter section distance could be taken (less than 100 meters) so that more accurate results could be obtained,
- ii) photographs should reflect date, time and latitude & longitude for its authenticity,
- iii) report should clearly bring out the depth of mining in area of deposition & erosion for each section so as to guide the PP on extraction volume of mining to be undertaken in each section, so that extraction should not be more than the replenished quantity. This will help in capturing the level of un-mined area extend information to ascertain the depth of existing excavation.

The EAC agreed with the report subject to incorporation of above suggestion as proposed to avoid chances of variations.

- g) On examining the KML submitted by PP on Decision Support System (DSS) and Google Earth and it has observed that the mining lease is falling at a distance of 7.48 KM to 8.28 KM from the Bhimbandh Wildlife Sanctuary. The Eco-Sensitive Zone around Bhimbandh Wildlife Sanctuary was notified on 09.01.2017. The EC was granted to these mines during March 2016 and PP

was required to obtain NBWL Clearance before commencing the mining operation. The Committee also observed that the Hon'ble Supreme Court in its order dated 2.11.2018 in I.A. 3949 inter-alia mentioned that

*"The Chief Secretary has assured us that he will look into the matter and see whether any illegal mining has been going on, that is to say, mining without any environmental clearance or without any forest clearance or clearance from the Standing Committee of the National Board for Wildlife. If that is so, necessary steps be taken by the State of Maharashtra to recover the amounts due to illegal mining (if any) under Section 21(5) of the Mines and Minerals (Development and Regulation) Act, 1957."*

This shows that Hon'ble Supreme Court considered mining without NBWL Clearance also as illegal mining. The Ministry has already intimated this issue to DMG, Bihar & SEIAA, Bihar vide its letter dated 19.03.2018 for taking necessary action.

3. Based on the above the Committee **recommends** the following:
- a) PP did not conduct the Replenishment Study for F.Y 2016-17 which is non-compliance of specific condition No 22 of the 19 ECs granted to these mining leases.
  - b) PP conducted the Replenishment Study for F.Y 2017-18 and the methodology used and calculations are not correct thus Committee did not accept this report.
  - c) PP submitted the Replenishment Study for F.Y 2018-19. The methodology used is acceptable subject to incorporation of suggestion made by EAC and establishment of permanent survey pillars with known mean sea level. Further, for more accuracy can be achieved if the section interval is kept less than 25 meters. Level of un-mined area needs to be recorded for comparison of depth of excavation with respect to un-mined area.
  - d) The Committee observed that PP has carried out mining in 2015 without obtaining prior EC thus it's a violation of Common Cause Order dated 2.08.2017.
  - e) The PP has also exceeded the capacity as against the EC granted thus it's a violation of S.O. 804(E) dated 14.03.2017.
  - f) The PP has carried out mining without obtaining the NBWL Clearance. Thus, suitable action may be taken the State Government in pursuant to Hon'ble Supreme Court Order dated 2.11.2018 and by the Ministry as per EPA,1986.

- g) The Committee appreciated the support provided by consultant during the appraisal process and also having transparent attitude especially in extending the factual information and data. However, the committee cautioned the Consultant to be serve and submit reports based on data, which is owned and validated by them.
- h) No mining is allowed during July, Aug & Sept, as per the EC condition no. 21, but as per production details submitted by DMG, Material dispatch has been reported in the month of July 2018. This is non-compliance to the EC condition granted vide Lr No 324 dated 14.03.2016 and Lr No. 325 dated 14.03.2016.
- i) The Committee observed that as per General Condition No 3/4 of ECs granted to 19 mining leases  
*"All the statutory clearance shall be obtained before starting mining operations. If this condition is violated, the clearance shall be automatically deemed to have been cancelled.*  
In the instant case PP was required to obtained clearance from Standing Committee of NBWL as the mining lease is falling within 10 KM of protected area. The PP reported the NBWL Clearance has not been obtained. Thus EC granted is regarded as automatically cancelled on the date of commencement of mining operation without NBWL Clearance as per this condition.

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The meeting ended with thanks

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**Annexure-I**

**Standard Terms of Reference (TOR) for Mining Project**

- 1) The TOR will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors..
- 2) Department of Mining & Geology, State Government shall ensure that mining operation shall not commence till the entire compensation levied, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- 3) Year-wise production details since 1993-94 should be given, clearly stating the highest production achieved in any one year prior to 1993-94. 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. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
- 4) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 5) 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.
- 6) 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).
- 7) 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.
- 8) 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.
- 9) 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.

- 10) 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.
- 11) 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.
- 12) 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.
- 13) 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.
- 14) 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.
- 15) 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.
- 16) 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.
- 17) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 18) 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.

- 19) 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.
- 20) 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.
- 21) 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.
- 22) 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).
- 23) 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.
- 24) 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 PM<sub>10</sub>, particularly for free silica, should be given.

- 25) 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.
- 26) 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.
- 27) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 28) 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.
- 29) 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.
- 30) 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.
- 31) 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.
- 32) 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.

- 33) 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.
- 34) 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.
- 35) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 36) 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.
- 37) 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.
- 38) 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.
- 39) 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.
- 40) 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.
- 41) 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.
- 42) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  - 43) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
  - 44) A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.
  - 45) 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.
  - 46) The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
  - 47) The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
  - 48) Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2<sup>nd</sup> August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.
  - 49) 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 4<sup>th</sup> 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.

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**Standard TOR for Beneficiation Projects**

- 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 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.
- 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 PM<sub>10</sub>, 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.

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**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”**

- 1) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.
- 2) The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well; EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt. of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.
- 3) Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, 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.
- 4) Considering the existing environmental quality, EC capacity, production rate, iron ore resources availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM, pollution free road transport, enhancement of rail network etc.) in the respective regions.
- 5) Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.
- 6) Construction of 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 minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. 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 above.

- 7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table : EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and <3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the 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.

However, 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.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized.

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 MoEF&CC.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

- 8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year
- 9) 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. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.
- 11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
- 12) **Mine-wise Allocation of Annual Production:** 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 as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

Table: Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)

Mine Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)				
		2016-17	2017-18	2018-19	2019-20	2020-21
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Mine 1	X1					
Mine 2	X2					
Mine 3	X3					
Mine n	Xn					
Total	160 +	105	129	153	177	201
<u>Next year allocation = Average of EC Capacity and Last year production</u>						

- 13) **Expansion of Existing Mines having Validity up to 2020:** In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non-captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. Therefore, these existing mines should go for production to the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered. Further, the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/ scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes about one year time. Under such circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.
- 14) **Sustained Iron Ore Production beyond 2020:** Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17 (actual production was – 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production
- 15) **Reserves Estimation–Mining Plan and Exploration:** Appropriate actions (geo-technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/ resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the ground water table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period.
- Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.
- 16) Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines

on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/ storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by IBM. The Department of Steel & Mines, Govt. of Odisha should initiate the pilot project so that minerals are fully utilized.

- 17) **Commercial Utilization of Low Grade Ore:** 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
- 18) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.
- 19) 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.
- 20) Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.
- 21) **Mining Operations/Process Related:** (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.

22) **Air Environment Related:** (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 water fogging 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, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> 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, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> 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. Further, 11 continuous air quality monitoring systems may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region. (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 3 using 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.

23) **Noise and Vibration Related:** (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 (detailed in Section 5.4) 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.

- 24) **Water/Wastewater Related** : (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.
- 25) **Land/ Soil/ Overburden Related** (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.

- 26) **Ecology/Biodiversity (Flora-Fauna) Related:** (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any. (ii) The mines falling within 5-10 km of the Karo-Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing food, water and space for the elephants is required to be ensured to avoid Man-Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that elephant's movement is not affected due to mining activities. (iii) 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. (iv) 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. (v) 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. (vi) 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. (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (viii) 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. (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level. (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

- 27) **Socio-Economic Related:** (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 / Hon'ble Prime Minister's Vision centring 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 "*Samagra Vikas*" 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 Mantri Khanij Kshetra Kalyan Yojna (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.
- 28) **Road Transport Related:** (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, as suggested in Chapter 10. 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, PM<sub>10</sub> 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

- 29) **Occupational Health Related:** (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)
- 30) **Reporting of Environmental Sustainability Achievement:** All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-à-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/rewarded. "Star Rating Format" formulated by the Ministry of Mines along with environmental sustainability report may be used.
- 31) **Environmental Monitoring Requirements at Regional Level:** Apart from strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table. Table: Suggested Environmental Monitoring Requirements and Action Plans at Regional Level

Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&CC.  All the water bodies (rivers, nallas, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted	SPCB	Continuous Annually

	in consultation with MoEF&CC-RO.		
	<u>Installation of online ambient air quality monitor for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub> within the mine having more than 3 MTPA EC Capacity</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous Annually</u>
	Installation of online ambient air quality monitor for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>x</sub> and NO <sub>x</sub> in the Joda and Koira Region (total 11 locations).	SPCB	Continuous Annually
2.	Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.	State Forest & Wildlife Dept.	Annually in mining zone and once in 3 years in the region
3.	Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.	Respective District Administration	Annually
4.	A detailed hydro-geological study in each of the regions shall be conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.	SPCB	Once in 2 years
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.	Dept. of Steel & Mines	12 months for road network and 5-7 years for rail network
6.	<u>Construction and maintenance of dust free roads from respective mine to the main road</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous 6 months</u>
7.	Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis. Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).	Dept. of Steel & Mines	Continuous 6 months
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using	ORSAC	Annually

	remote sensing data		
9.	R&D Studies for utilization of low-grade iron ore	Dept. of Steel & Mines through R&D / Academic Institutes	Upto 45% by 2020 and upto 40% by 2025

The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC (through EAC) can also utilize the data base available in evaluating the proposals for expansion of existing mines or new mines while granting ToR or EC to the mine, taking an holistic view of the region. State Govt. of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.

- 32) Institutional Mechanism for Implementation of Environmentally Sustainable Mining: The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-à-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the region on long term basis. It could be a SPV of Govt. of Odisha or a cell within the overall control and supervision of Dept. of Steel & Mines, with members from IBM, GSI, OSPCCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Funds should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/ expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept. of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/ reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as

for improvement in quality of life of the people of the region.

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**Standard EC conditions as per Ministry's OM No. 22-34/2018-IA.III,  
dated 08.01.2019**

**I. Statutory compliance**

- 1) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.
- 4) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 5) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 6) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 7) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

- 8) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 9) The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 10) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 11) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 12) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 13) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.parivesh.nic.in](http://www.parivesh.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 14) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

## **II. Air quality monitoring and preservation**

- 15) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind

direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

- 16) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

### **III. Water quality monitoring and preservation**

- 1) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- 2) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- 3) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 4) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- 5) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- 6) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater

Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

- 7) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- 8) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

#### **IV. Noise and vibration monitoring and prevention**

- 9) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 10) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- 11) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### **V. Mining plan**

- 12) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining

technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

- 13) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- 14) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

## **VI. Land reclamation**

- 15) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- 16) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

- 17) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- 18) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- 19) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- 20) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- 21) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
- 22) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

## **VII. Transportation**

- 23) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- 24) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

### **VIII. Green Belt**

- 25) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- 26) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development

department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

- 27) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- 28) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- 29) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

#### **IX. Public hearing and human health issues**

- 30) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.
- 31) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to

focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

- 32) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
- 33) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.

- 34) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 35) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- 36) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

#### **X. Corporate Environment Responsibility (CER)**

- 37) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- 38) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.

#### **XI. Miscellaneous**

- 39) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

- 40) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 41) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 42) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.
- 43) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

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**ATTENDANCE SHEET FOR 3<sup>rd</sup> MEETING OF THE RECONSTITUTED EXPERT APPRAISAL COMMITTEE (NON-COAL MINING), SCHEDULED DURING 25-26 MARCH, 2019**

Sl. No.	Name and address	Designation	25.03.2019	26.03.2019
1.	<b>Dr. S.R. Wate,</b> 148/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Chairman	<i>mw</i> 25/3	<i>mw</i> 26/3
2.	<b>Dr. Ajay Deshpande,</b> Flat A-101, Pristine Privilege Apartments, Opposite Prism, Near Rohan Nilay, Behind Spicer College, Aundh, Pune-410007, Maharashtra	Member	<i>Aj Deshp</i> 25/3	<i>Aj Deshp</i> 26/3
3.	<b>Shri G.P. Kundargi,</b> Plot No. 32, MOIL Vatika, Chicholi Road, Fetri, Nagpur 441501, Maharashtra	Member	<i>G Kundargi</i> 25/3	<i>G Kundargi</i> 26/3
4.	<b>Dr. A.K. Malhotra,</b> C-6, Subhavna Niketan, Road No. 41, Pitampura, Delhi-110034	Member	<i>A Malhotra</i> 25/3	<i>A Malhotra</i> 26/3
5.	<b>Dr. Gurdeep Singh,</b> Department of Environmental Science & Engg. Indian Institute of Technology (Indian School of Mines), Dhanbad-826004	Member	<i>Gurdeep Singh</i> 25/3/19	<i>Gurdeep Singh</i> 26/3/19
6.	<b>Shri B Ramesh Kumar,</b> H.No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secunderabad-500025, Andhra Pradesh	Member	<i>B Ramesh Kumar</i> 25/3	<i>B Ramesh Kumar</i> 26/3
7.	<b>Dr. Asha Rajvanshi,</b> WII, P.B# 18, Chandrabani, Dehradun-248001, Uttarakhand	Member	<i>Asha Rajvanshi</i> 25/3/19	<i>Asha Rajvanshi</i> 26/3/19
8.	<b>Prof. S. Ramakrishna Rao,</b> D.No. 50-120-9/1, North Ext., Seethammadhara, Visakhapatnam-530013, Andhra Pradesh	Member	<i>S Ramakrishna Rao</i> 25/3/19	<i>S Ramakrishna Rao</i> 26/3/19
9.	<b>Shri Santosh Gupta,</b> Flat No. 405, Gaur Green Vista, Nyaykhand-I, Indrapuram, Ghaziabad, UP-201014	Member	<i>S Santosh Gupta</i> 25/3/19	<i>S Santosh Gupta</i> 26/3/19
10.	<b>Dr. Parimal Chandra Bhattacharjee,</b> A/3 Asiyana Housing Complex Maligaon, Guwahati-781011, Assam	Member	<i>P Bhattacharjee</i> 25/3/19	<i>P Bhattacharjee</i> 26/3/19
11.	<b>Prof. Mukesh Khare,</b> Department of Civil Engineering, IIT, Delhi	Member		
12.	Representative of DGMS, Dhanbad, Jharkhand	Member		
13.	<b>Shri Mantu Biswas,</b> Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	<i>Mantu Biswas</i> 25/3/19	<i>Mantu Biswas</i> 26/3/19
14.	<b>Shri V.K. Soni,</b> Scientist 'E', IMD, New Delhi - 110 003	Member		
15.	<b>Dr. B. Lal, Additional Director</b> Shri Sundeep SCF, IA-Division (Non-coal Mining sector) Vayu-305, Indira Paryavaran Bhawan, Ministry of Environment, Forest & Climate Change, Jorbagh Road, New Delhi-110003	Member Secretary	<i>B Lal</i> 25/3/19	<i>B Lal</i> 26/3/19

16. Meraj uddin member SEAC, UP *Meraj*
17. Amit Kaulik Senior Mines Officer *Amit*
18. Subram Kumar. Director of Geology and Mining U.P. *Subram*
19. Sarita Sunkar Asstt. Dir. DGE, U.P. SEAC (U.P.) *Sarita Sunkar*
20. Rajive Kumar SEAC (UP) *Rajive Kumar*