

## **Ministry of Environment & Forests (IA Division)**

\*\*\*\*\*

### **SUMMARY RECORD OF 2<sup>nd</sup> MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The 2<sup>nd</sup> Meeting of the reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment and Forests was held during December 19<sup>th</sup> -21<sup>st</sup>, 2012. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

#### **Item No. 1:**

##### **1.1 Confirmation of the minutes of the 30<sup>th</sup> Meeting.**

The Minutes of the 1<sup>st</sup> Meeting held on 21-24<sup>th</sup> November 2012 were confirmed as circulated and corrected.

##### **1.2 Nomination of Vice Chairman**

As per the provisions of EIA Notification, 2006 Chairman of the EAC should constitute the Vice-chairman of the Committee within 3 months of the constitution of the Committee. Accordingly Dr. S. Subramaniyan is nominated as Vice-chairman of the Committee.

##### **2.1 Saruabil Chromite Mines of M/s. Misrilal Mines Pvt. Ltd. Village Saruabil, Kamarda & Talangi, Distt. Jaipur, Orissa (246.858 ha)-EC**

The consideration of the Proposal was deferred as the Public Hearing of the Project is not complete hence project was not discussed in the meeting.

##### **2.2 Agrat Limestone Mines (1.2 MTPA) of M/s. Jaiprakash Associates Ltd., Village Thanghatia, Bihri, Jhopa, Kothari, Argat & Jigna, Tehsil Ramnagar, Distt. Satna, Madhya Pradesh (363.070 ha)-EC**

The Argat Limestone Mines is a 1.2 MTPA capacity Limestone Mine to cater part requirement of existing Cement Plant at Majhgawan, Sidhi District, Madhya Pradesh. Mine Lease area is 363.070 ha located at Villages Thandghatiya, Bijuri, Jhopa, Kothar, Khodari, Argat and Jigna. The proposal is for opening of a new mine for production of 1.2 million TPA of limestone to meet the enhanced limestone requirement of their cement plant. The mine lease area is 363.07 ha. No forestland is involved. No National Park / Sanctuary is reported within 10 km of the mine lease. Mine working will be opencast mechanized involving drilling and blasting. Life of mine is 11 years. Ultimate working depth will be 36 m bgl (314 mRL). Water requirement is 150 kld/day, which will be obtained from mine sump water. The groundwater table is reported to vary between 305 – 308 mRL. Mine working will not intersect groundwater table. The Proposal was considered by the EAC in its meeting held on 25<sup>th</sup> -27<sup>th</sup> April, 2011. TOR letter was issued vide letter No. J-11015/46/2011-IA.II (M) dated 20<sup>th</sup> May, 2011. Mine Plan approval is obtained from IBM for ML area of 363.072 ha from Govt. of Madhya Pradesh vide letter No. 314(3)/2010-MCCM ©/MP-2, Nagpur dated 28.7.2010. No Protected Areas/Eco-sensitive areas are located within 10 km radius of the Project. Son Gharial Sanctuary is about 10.8 km from the Mine lease area. Total 150m<sup>3</sup>/day water will be required for dust suppression, greenbelt and domestic use. Basline data was collected during March 2011 to May 2011. All parameters were found within permissible limits. Public Hearing was conducted on 4<sup>th</sup> March 2012. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation. OB generation will be 714,828 tonnes which will be backfilled from 5<sup>th</sup> year onwards. Mining technology involves opencast mining with shovel dumper combination. Out of total ML area of 363.07 ha 315.297 ha is the agricultural land, 0.935 ha is Government land and 47.773 ha is waste land. Entire private land will be purchased by mutual consent. About Rs. 4 lakhs per acre is being paid. Total cost of the Project will be Rs. 20 Crores. Cost of environment protection measures will be Rs. 145.10 lakhs.

It was observed by the EAC that Proponent had not submitted satisfactory information with reference to rehabilitation and socio-economic issues (TOR No 4 and 30). It was noted in the TOR that Due to location of mine in proximity of the habitation and a village is sand-witched between the mine, the impact of the project on habitation and the specific precautions to be taken to minimize the impact of the project should be detailed. It was submitted by the Proponent that Argat (0.1km), Jhurmani (1.5 km), Hinauti 4 km) are the villages existing between Argat ML area and Hinauti. No habitation within the ml area hence no resettlement issues. Secondly, Proponent was asked to take measures of socio-economic significance and influence to the local community. Proposed Action Plans to mitigate impacts of mining on the neighbouring villages and loss of Agricultural Land should be provided with quantitative dimensions and time frame for implementation. Proponent had not submitted details on this issue.

Based on the presentation made and discussion held, the Committee sought additional information:-

1. Submit a proposal for welfare measures to be taken for Scheduled caste/Scheduled tribe population of the study area.
2. Detailed R&R Policy and proposed measures to safeguard the villages located near mine lease area, and of socio-economic significance as stated above.

It was decided that the Proposal may be brought back before the Committee for its further consideration after the requisite information as mentioned above is furnished.

### **2.3 Proposed 1.0 MTPA iron Ore Beneficiation Plant of M/s. Jindal Steel & Power Ltd., Village Tantra, Raikela & Bandhal, Tehsil Korias, Distt. Sundergarh, Orissa- (Consultant M/s S.S. Environics (India) Pvt Ltd)-EC**

The Proposal was considered by the EAC in its meeting held on January 19-21, 2011. TOR were accorded by MoEF on 14-02-2011. TRB Iron Ore Mine has proposed to establish a 1.0 MTPA Iron ore Beneficiation Plant which will be helpful for reclaiming the old dumps with the objective of mineral conservation. This proposed Beneficiation Plant is designed for feeder grade between 45% Fe to 58 % Fe content. This project aims to utilise 11.32 Million Tonnes of Low grade ore having high alumina & silica as per the present reserve estimation. No additional Land is involved. 5.06 Ha for Beneficiation plant and 4.335 Ha for Tailing Management is within the exiting Mine lease area. The Mine Lease Area is located at Villages Tantra, Raikela and Bandhal, Tehsil Koira District: Sundergarh in Odisha State located between Latitude 21°53'6.391"N-21°53'24.74"N and Longitude 85°09'58.065"E- 85°11'44.06"E. Lease was allotted to the Proponent on 16.04.1982, By Govt. of Odisha with Mining Lease Area of 297.848 ha, (141.705 ha. in K.F ,155.008 ha in DLC) & 1.135 ha Tenanted land for a period of 20 years (25.05.1985 to 24.05.2005). Proponent applied for RML Vide Sl. No. 143, dated 15.04.2004. 207.787 ha (51.644 ha in K.F,155.008 ha in DLC) & 1.135 ha Tenanted land. Modified scheme of mining obtained IBM Clearance vide letter no. 314(3)/2011-MCCM (CZ)/MS-48, dated 23.04.2012. Environment clearance for 3.11 MTPA was accorded by MoEF Vide letter No. J-11015/1154/2007 dated 17.03.2009. Stage-I clearance accorded on vide letter No.8-63/95-FC, dt.23.11.2012 for diversion of additional forest land of 116. 147 ha (104.999 ha for mining and allied activity + 11.148 ha for maintenance of safety zone) that includes 5.06 ha for Beneficiation Plant and 4.335 ha for Tailing Dump area. Method of mining is mechanized opencast with drilling & blasting. Baseline Data has been collected during December 2010 – February 2011 within 10 km radius of the project area. All environment parameters were within

permissible limits. Public Hearing was held on 03.12.2011 which was attended by Sri Sidheswar Naik, OAS-I (JB), the Project Administrator I.T.D.A, Bonai, Sundargarh and Sri Niranjan Mallik, Regional Officer, OSPCB, Rourkela, Sundargarh, Odisha. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation of Peripheral development activities. The proposed Iron Ore Beneficiation Plant will be set up inside the existing mining lease of JSPL hence no displacement of families is involved due to the proposed project. No Rehabilitation & Resettlement Plan is envisaged. 60.25 m<sup>3</sup>/hr water shall be sourced from Samij Nala, application to WRD, State Govt, Odisha submitted on 24-06-2011 for withdrawing water. Estimated cost of the project as of 2009-10 is Rs.90.6 Crores.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to submission of permission from Central Ground Water Board (CGWB) for groundwater.

**2.4 Captive Limestone Mine with limestone production of 3.0 million tonnes per annum (602.054 ha non-forest area) at Itgi, Digaon and Mogla Villages, Chittapur Taluk, Gulbarga district, Karnataka by M/s. Orient Cement located at Village Mogla and Digaon, District Gulbarga, Karnataka (Consultant: B .S. Envi – Tech Pvt. Ltd, Hyderabad)-EC**

The proposal is for opening of a new mine for production of 3.0 million TPA of limestone to meet the requirement of their integrated Cement Plant which will be located adjacent to the mine lease. It was stated that the proponent have submitted a separate application for TOR in respect of the Cement Plant with captive Power Plant to the Industry sector. The mine lease area is 602.054 ha. No forestland is involved. Mine working will be opencast mechanized involving drilling and blasting. Ultimate working depth will be 60 m. Life of mine is 92 years. Soild waste will be in the form of black cotton soil and lateritic soil 5.05 million m<sup>3</sup>. 0.04 million m<sup>3</sup> will be disposed in 9.35 ha by bund formation along SW of pit, in the safety zone of village to a height of 10 m. 5.01 million m<sup>3</sup> will be backfilled in 18.40 ha of mined out area. 16.2 million m<sup>3</sup> of waste (subgrade limestone) will be Backfilled in 64.44 ha of mined out area. Total cost of the project will be Rs. 120 Crores. 155 m<sup>3</sup>/day (150 m<sup>3</sup>/day recycled water from power plant and 5 m<sup>3</sup>/day is fresh water). Baseline data was collected during December 2011 to February 2012. All parameters were found within permissible limits. Ground water level is 80 m below the general ground. Activities does not reach the Ground Water Table. Public Hearing for the Integrated Project (Cement Plant and Mine) was conducted on 18.07.2012. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation of

development activities. It was observed that Itgi village is surrounded by the mine lease all around it. Further, it was also observed that the village will fall in the pre-dominant downwind direction of the Cement Plant. It may, therefore, be necessary to examine the possibility of shifting the village to some other location. Further, this limestone deposit being sedimentary deposit, use of surface miners should be examined. The mining lease area is private land with rainfed agricultural land (No. of land oustees - 280). It was also observed by the EAC that the Hospital established by the Company is having 6-7 beds only.

Based on the presentation made and discussion held, the Committee sought additional information:-

1. Setting up hospital with satisfactory health care facilities for local residents.
2. Detailed R&R Plan, with reference to the village located near mine lease area.
3. Details of the CSR.

It was decided that the Proposal may be placed before the Committee for its further consideration after the requisite information as mentioned above is furnished.

## **2.5 Chawandiya & Madpura Limestone Mine of M/s. MW Mines Pvt. Ltd., Village Chawandiya-Madpura, Tehsil Khminsar, District-Nagpur, Rajasthan (335.37 ha)-EC**

The Chawandiya Mine Lease was initially granted to M/s National Development Corporation Ltd over an area of 335.37 ha including Government wasteland (134.37 ha) and private agricultural land (201 ha). Later on the lease was transferred to M/s M.W. Mines Pvt Ltd ON 10.8.2006 vide letter no NIKHABHU/NAGAUR/CC-6/P-1(1)1/88/1136. Application for the first renewal was submitted on 30.6.2010 for the period of twenty years and is pending for want of Environment Clearance from MoEF. Expiry of ML was on 2.7.2011. The Public Hearing was held on 15.11.2006. Earlier EC was granted vide order no. J-11015/402/2006-IA.II(M) dated 10.5.2007 for the production capacity of 10,00,000 TPA. Mining Plan for renewal was approved vide order 584 (4) (3)(1184)/-2011 KSHEKHANI-AJM dated 18.5.2012 for production capacity of 10,00,000 TPA. Consent to operate was granted on 9.9.2009 and was renewed periodically and is valid till 31.5.2013. The Proposal was considered by the EAC in its meeting held on June 21<sup>st</sup>-23<sup>rd</sup>, 2011 for renewal of Mine Lease. TOR issued on 29<sup>th</sup> July 2011. EAC in its meeting held on June 2011 decided that the said project was earlier accorded environmental clearance by the MoEF on 10.5.2007 for production of 1.0 million TPA involving lease area 335.37 ha based on Public Hearing held on 15.11.2006. On this basis Committee exempted PH, because

there was no enhancement of production and or lease area is envisaged under the Project. Method of mining is opencast mechanised. No ecologically sensitive areas/national park/sanctuary exist within the 10 km radius of the study area. The area does not falls in Aravali Hills ranges. The Public Hearing was earlier held on 15.11.2006 at the time of seeking environmental clearance as per the procedure prescribed under the EIA Notification, 2006. The Proponent made a request to the Committee for exempting Public Hearing as no enhancement of production and or lease area is envisaged under the project. The Committee, taking into account that this is a case of renewal of mine lease only without any enhancement either in terms of lease area or production and taking into account that the Public Hearing was earlier held following the procedure prescribed under EIA Notification, 2006 recommended for exemption from Public Hearing. Total cost of the Project is Rs. 5 Crores.

Based on the information submitted and discussions held, the Committee recommended the project for environmental clearance.

## **2.6 Risora Sand/Moram Mining of M/s Virendra Singh on River Ken at Village Risora, Distt. Banda, Uttar Pradesh with production capacity of 5.2 Lakhs tonnes/year (19.18 ha) (Consultant: Grassroots Research and Creations India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The proposed project of 19.18 ha area is of river bed Sand/Moram mining and falls under Category- "A" due to the presence of Interstate boundary of Madhya Pradesh and Uttar Pradesh within 10 km radius of the mine lease area. The mining lease area is located in Village Risora, Tehsil Naraini, District Banda, Uttar Pradesh. The proposed project activity will be carried out in the bed of the River Ken. Mining Leases Area is located at Khasra No.-2 between Latitude 25°14'05.13"N to 25°14'02.82"N and Longitude 80°24'31.94"E to 80°24'31.46"E Khasra No.- 116 Latitude 25°13'48.16"N to 25°13'30.30"N Longitude 80°24'37.88"E to 80°24'46.12"E. It has been proposed to collect approximately 5.2 Lakhs tonnes/year of sand/moram. No mining activity will be undertaken during the monsoon season. The mining is confined to extraction of sand/Moram from the river bed. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Sand/Moram Mining will be carried out only upto a depth of 3 m, using excavators. Mining will be carried out only during the day time. The proposed project is for the extraction of sand/Moram form the riverbed by semi-mechanized manner. The proposed mine has lease

over an area of 19.18 ha. The total extractable material would be approx. 5.2 Lakh tonnes per annum. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Excavators will be used. Mining will be carried out only during the day time. The deposits occur in the middle/bottom of the river. During the lease period, the deposit will be worked from the top surface to 3 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate. No raw material will be required in the proposed project. The operation involves the extraction of sand/Moram in its existing form and loaded into trucks/trolleys which will transport the material to the local market. The existing roads will be utilized for the transport of sand/Moram from mine site to market. In the proposed project there is no need of water to carry out operations but for drinking water which will be required for the working people and for the dust suppression. Water requirement for drinking and for dust suppression will be around 1.8 KLD. This water will be supplied from the nearby villages by tankers.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study subject to submission of a letter from the District Magistrate that the mine was not working till 30.06.2011. The TORs prescribed by the Committee are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by

- its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details



- furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in

- the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.7 Gaurshivpur Sand/Moram Mining of M/s. Anil Gupta on River Ken in Village Gaurshivpur, Tehsil Naraini, District Banda, Uttar Pradesh with production of 1.89 lac tonnes/year (19.60 ha) (Consultant: Grassroots Research and Creation India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The proposed project of 19.60 ha area is of river bed sand/moram mining and falls under Category "A" due to the presence of Inter State Boundary of

Uttar Pradesh and Madhya Pradesh within 10 km of the project site. The mining lease area is located in Village Gaurshivpur, Tehsil Naraini, District Banda, Uttar Pradesh. The proposed project activity will be carried out in the bed of the River Ken. The Mine Lease Area is located at Khasra No.2 between Latitude 25°13'20.27"N to 25°13'10.54"N and Longitude 80°24'37.74"E to 80°24'35.86"E Khasra No.8/4 Latitude 25°13'8.08"N to 25°13'21.17"N Longitude 80°24'51.28"E to 80°24'44.55"E Khasra No.35- Latitude 25°13'10.22"N to 25°12'59.56"N Longitude 80°24'41.42"E to 80°24'51.06"E Khasra No.40- Latitude 25°13'16.69"N to 25°13'10.54"N Longitude 80°24'43.44"E to 80°24'42.03"E Khasra No.43/8- Latitude 25°13'8.19"N to 25°13'3.98"N Longitude 80°24'36.67"E to 80°24'39.98"E Khasra No.60-Latitude 25°12'53.67"N to 25°12'36.84"N Longitude 80°24'43.92"E to 80°24'50.32"E. It has been proposed to collect approximately 1.89 lacs tonnes/year of sand/moram. No mining activity will be undertaken during the monsoon season. The mining is confined to extraction of sand/Moram from the river bed. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Sand/Moram Mining will be carried out only upto a depth of 3 m, using excavators. Mining will be carried out only during the day time. The mining is confined to extraction of Sand/Moram from the river bed. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Excavators will be used. Mining will be carried out only during the day time. Working Depth (below ground level) The deposits occur in the middle/bottom of the river. During the lease period, the deposit will be worked from the top surface to 3 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate. No raw material will be required in the proposed project. The operation involves the extraction of sand/Moram in its existing form and loaded into trucks/trolleys which will transport the material to the local market. The existing roads will be utilized for the transport of sand/Moram from mine site to market. In the proposed project there is no need of water to carry out operations but for drinking water which will be required for the working people and for the dust suppression. Water requirement for drinking and for dust suppression will be around 1.8 KLD. This water will be supplied from the dug wells/bore wells nearby village. The Total cost of project would be around Rs. 12 lacs.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study subject to submission of a letter from the District Magistrate that the mine was not working till 30.06.2011. The TORs prescribed by the Committee are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the

- rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
  4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
  5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  7. 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.
  8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.

16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM<sub>10</sub> particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.

36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in



Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.8 Lahureta Sand/Moram Mining of M/s. Dilip Singh on River Ken (32.46 ha) in Village Lahureta, Tehsil Naraini, District Banda, Uttar Pradesh with production of 3.5 lacs tonnes/year- (Consultant: Grassroots Research and Creation India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The proposed project of 32.46 ha area is of river bed sand/Moram mining and falls under Category- "A" due to the presence of Inter State Boundary Uttar Pradesh and Madhya Pradesh within 10 km, as per EIA Notification, 2006. The mining lease area is located in Village Lahureta , Tehsil Naraini, District Banda, Uttar Pradesh. The proposed project activity will be carried out in the bed of the River Ken. It has been proposed to collect approximately 3.5 lacs tonnes/year of sand/moram. No mining activity will be undertaken during the monsoon season. The mining is confined to extraction of sand/Moram from the river bed. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Sand/Moram Mining will be carried out only upto a depth of 3 m, using excavators. Mining will be carried out only during the day time. The Mining Lease Area is located at Latitude: 25° 9'21.06"N 25° 9'43.07"N Longitude: 80°23'25.26"E 80°25'6.86"E. The operation will be semi-mechanized in which the river bed material will be collected in its existing form. Excavators will be used. Mining will be carried out only during the day time. The deposits occur in the middle/bottom of the river. During the lease period, the deposit will be worked from the top surface to 3 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate. In the proposed project there is no need of water to carry out operations but for drinking water which will be required for the working people and for the dust suppression. Water requirement for drinking and for dust suppression will be around 2.3 KLD. This water will be supplied from the dug wells/bore wells from nearby villages. The Total cost of project would be around Rs. 12 lakhs.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study subject to submission of a letter from the District Magistrate that the mine was

not working till 30.06.2011. The TORs prescribed by the Committee are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.

14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.

23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
34. Detailed Environmental Management Plan (EMP) to mitigate the

- environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.9 Mining of Minor Mineral (Sand) from Vamsadhara River with Production of 1,40,000 Tonnes/Year (7.34 ha) at Village Limamada, Tehsil Gunupur, District Raigada, Orissa (Consultant: Ekmara Consultant Private Limited)-TOR**

The consideration of the Proposal was deferred as the Project Proponent did not attend the meeting.

**2.10 Dhangras Quartz Mica, Kynite & Vermiculite Mine of M/s. Radha Krishna Sharma, Village Potlaon, Tehsil Sahara, Distt. Bhilwara, Rajasthan (144.13 ha)**

The consideration of the Proposal was deferred as the Project Proponent could not present the proposal and did not have an accredited Consultant.

**2.11 Expansion of Existing Lead Zinc Ore Mining and its beneficiation capacity from existing 1.5 MTPA to 5.0 MTPA of M/s. Hindustan Zinc Ltd. Village near Zawar, Distt. Udaipur, Rajasthan (3620 ha)(Consultant: Vimta Labd Ltd)-TOR (Forest Land)**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

This project report is for mining & ore beneficiation capacity enhancement from 1.5 Mtpa to 5.0 Mtpa. Zawar deposit consisting of four operating underground mines situated in Block 1 with a lease hold area of 3172 hectares. The cumulative mineralized strike length of four deposits under active exploitation extends for 7.4 kms. Bara prospect is located in Block 3 having a lease hold area of 448 ha with an estimated strike extension of 1.5 kms. For capacity enhancement the exploratory drilling would be 1,00,000 m and mine

development requirement would be 60000 m/year. Zawar Group of Mines is operating with valid air & water consents and all the environmental attributes prescribed are well within the limits. The authorization for hazardous waste is also valid & the waste is disposed as per the Hazardous Waste Management & Handling Rules. The area lies in Block 1 at Longitude 73040'22" to 73045'08" Latitude 24018'50" to 24022'47" and Block 3 at Longitude 73040'26" to 73041'46" Latitude 24012'37" to 24014'21". The total mining lease area is 3620 hectares spread over two blocks; Block 1 (3172 hectares) & Block 3 (448 hectares). Mining Lease No. 3/89 was valid up to 29th March, 2010. Presently under deemed renewal as per provisions of MCDR. Initial mining lease for Zawar area for a lease hold area of 5178 hectares (Block 1,1A, 2, 3 & 4) was granted for the period from 1st April, 1950 to 1<sup>st</sup> April, 1970 as per agreement between Rajpramukh, Rajasthan & M/s Metal Corporation of India. Successive renewals have been made by entering into agreement with Government of Rajasthan. Due to low mineralization potential, HZL opted for reduction of lease hold area from 5178 to 3620 hectares, by surrendering an area of 1558 Ha. The area surrendered consisted of 678.89 ha of Forest land and 879.11 ha of non-forest land. The reduced lease area of 3620 ha consisted on 1537.91 ha of Forest land. Further, as required under the Forest Conservation Act 1980, clearance for diversification of forest land was granted by MoEF for the Forest area of 1537.91 ha including 114.94 ha for surface use vide Order no. 8-1/97-FC Dated 15/16.6.98. HZL entered into an agreement with Govt of Rajasthan on 25.04.2000 on renewal of leasehold of 5178 hectares from 30.03.1990 to 05.01.2000 & 3620 hectares for the period from 06.01.2000 to 29.03.2010. Application for III renewal of mining lease (30.03.2010 to 29.03.2030) submitted to Dept. of Mines and Geology (DMG) Government of Rajasthan on 25.11.08. Mine plan for the requested period of renewal (2010-2030) approved by IBM, vide letter No. 682(23) (671)/2009-Udai dated 21.08.09.

Environment Clearance granted by MoEF vide letter No. J-11015/289/2008/IA.II(M) dated 30.10.2009. Consents to Establish & Operate granted by Rajasthan State Pollution Control Board vide letter no. F (mines)/udaipur/Sarada/9(1)/2009-2010/6139 dated 10.03.2010 and letter no. F(Mines) Udaipur(sarada)/9(1)2009-10/6572 dated 23.03.2010 respectively. Proposal for renewal of forest diversion put forward for consideration before Forest Advisory Committee on 26.02.2010. Approval put in abeyance in the light of Hon'ble Supreme Court order dated 19.02.2010, restraining mining in Aravalli hills of Rajasthan. HZL approached to Hon'ble Supreme Court for modification and intervention of its order dtd 19.02.2010. Hon'ble Supreme Court directed FAC to consider the instant proposal on its own merit. On the Hon'ble Supreme Court directions, renewal of forest clearance was recommended by FAC on 07.05.2010. Affidavit on FAC recommendations were filed before Hon'ble Supreme Court by MoEF on 06.07.2010. MoEF approved the recommendations of FAC for renewal of Forest Clearance and affidavit regarding approval was filed by

MoEF before Hon'ble Supreme Court on 25.11.2010. Hearing by the Hon'ble Supreme Court was scheduled on 04.10.2012. The current mining plan along with Progressive Mine Closure Plan for the period from 2010-11 to 2029-30 has been approved by IBM vide letter no. 682(23)(671)/2009-Udai dated 21.08.2009. Revised mine plan for 5.0 Mtpa is under preparation for submission to IBM for necessary approval. Tidi Dam, a Gravity Masonry Dam constructed in 1976 at Amarpura situated approximately 13 kms from Zawar Complex. Mining Method at Zawar, the litho-environment is competent and self supporting and thus allows creation of open stopes. Depending on ore body configuration, the open stopes are made longitudinal & transverse. Besides conventional stoping, mass blast of remnant pillars has also been successfully executed. Since inception of Zawar operations, two tailing disposal facilities have been created by constructing earthen dams within the lease hold. First tailing dam spread over an area of 38 hectares was saturated to its capacity in the year 1982 and has been rehabilitated through plantation with a growth of 1.55 lacs plants surviving as on date. Initial construction as well as subsequent height raising of tailing dam has been designed by expert from IIT, Delhi. The tailing dam has been designed for static and seismic conditions. Water requirement for present mining and Ore beneficiation operation is met from Captive Tidi Dam which was constructed By Hindustan Zinc Limited at a distance of 13 Km upstream across Tidi river having a storage capacity of 8 MCM. Govt of Rajasthan has given the authority to use total water of the dam to Hindustan Zinc Limited, during post monsoon to pre-monsoon period of about 270 days accounts for about 29600 cum/day. The estimated capital requirement will be Rs 1800 Crores.

Based on the information furnished, presentation made and discussions held, the Committee suggested Proponent to obtain necessary forest clearance. Committee prescribed the TORs for undertaking detailed EIA study subject to submission of revised form-I. TORs prescribed by the Committee are as follows:

- 1) Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
- 2) Year-wise production details since 1994 onwards should be given clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 coming into force w.r.t. the highest production achieved prior to 1994.
- 3) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 4) 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 and mining technology and should be in the name of the lessee.
- 5) All corner coordinates of the mine lease area superimposed on High



- Resolution Imagery/toposheet should be provided.
- 6) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - 7) Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - 8) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - 9) Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  - 10) 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.
  - 11) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
  - 12) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
  - 13) A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon'ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
  - 14) 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
  - 15) A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

- 16) Impact, if any, of change of land use should be given.
- 17) R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
- 18) One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
- 19) 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.
- 20) Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard should also be provided.
- 21) The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
- 22) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 23) Details of water conservation measures proposed to be adopted in the project should be given.
- 24) 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.

- 25) 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. 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.
- 26) Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
- 27) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 28) 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.
- 29) Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
- 30) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 31) 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
- 32) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 33) Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
- 34) Phase-wise plan of greenbelt development, 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.
- 35) Occupational health impact of project should be anticipated and

- preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
- 36) Public health implication 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 allocation.
  - 37) Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  - 38) Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  - 39) 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.
  - 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  - 41) The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.

- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.12 Sand, Stone and Bajri Quarry with production of 48,720 Tonnes Per Annum of M/s. Vivek Kalia, Village Lohru Mouza Jawali, Mohal Bagrud & Bhaloa, Tehsil Jawali, Distt. Kangra, Himachal Pradesh (15.667 ha) (Consultant: Grass Roots Research And Creation India (P) Ltd) -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The project is for sand, stone & bajri mining from the bed of Dehar Khad (tributary of Beas). The lease was from 23-12-2005 to 22-12-2010 and has applied for renewal on 21-12-2009. Mine closed since 11-05-2011. Lease for a period of five years from 23-12-2010 to 22-12-2015 has been granted. The Mine Lease area is located at Village Lohru Mauza Jawali, Mohal Bagrud & Bhaloa, Tehsil Jawali, District Kangra, Himachal Pradesh between Latitude 32°10'6.08" N to 32°9'5.0" N and Longitude 76° 2'1.62" E to 76°1'42.22" E on River Dehar Khad. Pong Dam Lake Wild Life Sanctuary lies within 10km of the study area. While appraising the Proposal it was observed that it is a violation case. Material will be collected manually. Extraction will be from the bed of Dehar Khad. The khad is seasonal, thus the stream will remain unaffected. Mining will be carried out section wise only upto a depth of 3 feet bgl or above groundwater level whichever is less. No change in land use as the minerals will get replenished

during monsoon. Work will not be done during monsoon season and night time. 5 m zone will be left from the bank side and from the river stream side. Vehicles only with valid 'pollution under control certificate' will be deployed for transportation of minerals. Total 0.77 KLD water will be required which will be obtained from tube well/dug wells from nearby village. Cost of Project is Rs 30 Lakhs.

While appraising the Proposal it was observed that this is a violation case. Based on the presentation made and discussion held, the Committee prescribed the TOR for preparation detailed EIA/EMP studies subject to obtaining prior wildlife clearance from the Standing Committee of National Board of Wildlife. The following conditions were prescribed.

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.

22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation



- and the species to be planted should be provided.
32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters

(as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.13 Ranavav (Govalani ) Lime Stone Mine (25.45 ha) of M/s. Tata Chemicals Ltd., Survey No. 78/ part, Village Ranavav (Govalani), Taluka Ranavav, District Porbandar, Gujarat State (0.122 million metric tons)-TOR**

The consideration of the Proposal was deferred as the copies of the documents were not reached to the Members of EAC for perusal.

**2.14 Limestone Mine of M/s. Tata Chemicals Ltd. Village Aniali, Taluka Ranavav, Distt. Porbander, Gujarat (6.07 ha)-TOR**

The consideration of the Proposal was deferred as the copies of the documents were not reached to the Members of EAC for perusal.

**2.15 Dongri Iron Ore Mine of M/s. Godawari Power & Ispat Ltd at Village Kachche, Tehsil Bhanupratappur, Distt. Uttar Bastar (Kanker), Chattisgarh (106.60 ha to 138.96 ha) with addition of 7.0 lakh tonnes/annum in existing capacity of 7.05 lakh tonnes/annum with total 14.05 lakh tonnes/annum production-(J.M. EnviroNet Pvt. Ltd)TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining

environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The Chhattisgarh State Government vide letter No. F.3-3/2010/12 dated 04.02.2010 submitted their proposal to Government of India in Ministry of Mines, New Delhi for its prior approval Under S-5(1) of the Mines and Mineral (Development and Regulation) Act, 1957 for grant of mining lease for iron ore over 32.36 ha. The Central Government by its letter No.5/33/2010-M.IV dated 31.08.2010 conveyed its prior approval under S-5(1) of the MMDR Act, 1957 for grant of mining lease for iron ore over 32.36 ha. in Village Kache, District North Bastar Kanker, Chhattisgarh in favour of M/s. Godawari Power and Ispat Ltd. for a period of 20 years. Thereafter State Government has issued the letter of intention to grant the mining lease. The necessary proposal has been submitted to Central Government in the Ministry of Environment and Forests (FC Division) and the Forest Advisory Committee has considered in its meeting held on 17.9.2012 and recommended for I-Stage clearance under the provisions of the Forest (Conservation) Act, 1980. The applied mining lease area falls in the forest compartment No 608 of Kachche RF of Kachche Village, Bhanupratappur Tehsil, Kanker District of Chhattisgarh. Total area is Government Forest Land. The Mine Lease Area is located between a. N 20° 24' 27" E 81° 03' 56" b. N 20° 24' 27" E 81° 04' 14" c. N 20° 24' 48" E 81° 04' 14" and d. N 20° 24' 54" E 81° 03' 56". The objective is to achieve the iron ore total production capacity of 14.05 LTPA from existing mining lease of 106.60 ha (7.05 LTPA) and additional Mining Lease area of 32.36 ha (7.0 LTPA). Total investment in this project by the applicant would be around Rs. 8.76 Crores. The presence of water table is observed below 405m MSL. Present working is at 460m MSL and it will remain around 445m MSL during the next five years of working. The applied mining lease area is in forest compartment 608 in an area of 32.36 ha. It is envisaged to develop the forest compartment by opencast mechanized mining method. Removal of waste rock will be done simultaneously in a systematic manner to get the adequate exposure of iron ore faces. The entire transport of ore from the area will be by road. The total waste generation during life of mine will be around 1.145 million tones. The applied ML area being the forest cover, great care and attention has been paid to waste rock disposal so that maximum reclamation of land can be done to as near its original form as possible. Waste generated from the area will be dumped at the suitably chosen sites so that they will not flow down. Further waste will be separated from flowing water to avoid water pollution of the surrounding water sources. Water consumption will be 25 m<sup>3</sup>/day. The ground water will be drawn from bore well for water requirement.

Based on the information furnished, presentation made and discussions held, the Committee suggested Proponent to obtain necessary forest clearance.

Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
3. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
4. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
5. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
6. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
7. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
8. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
9. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.
10. Land use of the study area delineating forest area, agricultural land, grazing
  - a. land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
11. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
12. Details of the land for OB 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.
13. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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 Committee.
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). A copy of the forestry clearance letter should also be furnished.
  16. Implementation of 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. 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.
  18. The vegetation in the RF / PF area with necessary details should be given.
  19. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
  20. 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, and outbound movement of the products should be provided.
  21. Details of the technology and process involved in the project may be furnished.
  22. Proposed treatment of runoff from the fines/waste dump should be provided. Estimation of the fines going into the washings and its management should be given. Details of the equipment, settling pond etc. should be provided.
  23. Detailed material balance should be provided.
  24. Source of raw material and its transportation should be given. Steps proposed to be taken to protect the ore from getting air borne should be given.
  25. Management and disposal of tailings and closure plan of the tailing pond, if any, after the project is over, should be provided.
  26. Size distribution of the iron ore with percentage weight shall also be done to assess the source of fugitive dust emission of the ore feed to the plant.
  27. Measures to manage the under size / over-size waste from the feed ore shall be provided.
  28. Details of the solid waste to be generated and its management should be

- outlined. Adequacy of the tailing pond for the life of the beneficiation plant should be provided with supporting data and documentation. Design and capacity of tailing pond should be such as to guard against overflow from the tailing pond during heavy rainfall. The provision of lining, nature of lining with supporting permeability studies should also be provided.
29. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
  30. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, necessary plan 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.
  31. Impact of change of land use should be given.
  32. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  33. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected presented date-wise in the EIA and EMP report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10 particularly for free silica should be given.
  34. 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.
35. 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.
  36. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  37. Details of water conservation measures proposed to be adopted in the project should be given.
  38. 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.
  39. 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. 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.
  40. Details of first order stream, if any, passing through lease area and modification/ diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  41. Details of rainwater harvesting proposed, if any, in the project should be provided.
  42. 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.
  43. Quantity of solid waste generation should be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dumps (number of dumps, their height, terraces etc. to be brought out).
  44. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  45. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government), should be covered.
46. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  47. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
  48. Phase-wise plan of greenbelt development, 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.
  49. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  50. Public health implication 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 allocation.
  51. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  52. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  53. 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.
  54. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  55. The cost of the project (capital and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.



- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.16 Iron Ore Beneficiation Plant (capacity of 0.63 million TPA throughput) of M/s. Shivom Minerals Ltd. Village Kusumdihi, Tehsil Bonai, Distt. Sundargarh, Orissa (0.63 MTPA) (Consultant: M/s Envirionics (India) Pvt Ltd)-Extension of TOR validation**

The Proposal was considered by the EAC in its meeting held on 24<sup>th</sup> -26<sup>th</sup> May, 2010. The Proposal is for setting up of iron ore beneficiation plant having a

capacity of 0.63 million TPA of throughput. The land requirement for the Project is estimated as 30.56 acres. Additionally, an area of 8.79 acres is earmarked for solid waste disposal outside the Project area. The iron ore rejects from the nearby mines within 50 km of the area will be used as raw material. The process involves washing and removal of impurities. The plant will be based on zero discharge outside the plant. The waste water will be recovered and re-circulated. The rejects after filter press will be disposed to the disposal section. TOR were issued vide letter No. J-11015/71/2010-IA.II (M) dated 23<sup>rd</sup> June, 2010. The Proponent requested for extension of validity of TOR vide letter No. 14.12.2012 asking additional time for completing the EIA/EMP Report.

Based on the request letter submitted by the Proponent, information furnished and discussions held, the Committee recommended the extension of TOR for additional one year.

**2.17 Tigora Rock Phosphate Mine with production capacity 40150 TPA OPENCAST WORKING AND 35000 TPA recovery from sub grade dump of M/s The M.P. State Mining Corp. Ltd. Village Tigora, Tehsil Banda, Distt. Sagar, M.P. (52.80 ha)-EC**

The consideration of the Proposal was deferred as the copy of the reports were not received by the EAC members.

**2.18 Manganese Ore Mine with 5,400 TPA production of M/s Venkata Narayana Reddy at Putikavalasa Village, Hamlet of Diguvamendangi (Mokasa) Village Saluru Mandal, Viziangam District, Andhra Pradesh (21.77 ha) (Consultant: M/s Vison Labs)-EC**

The Proposal was considered by the EAC in its meeting held during 28-30 September, 2010. TOR were issued by MoEF vide letter No. J-11015/258/2010-IA.II)(M) dated 25<sup>th</sup> October, 2010. The Proposal is for opening of a new mine for production of 5,400 TPA of manganese ore. The mine lease area is 21.77 ha. Involved land is total Government wasteland. The mine lease area is located between 18<sup>o</sup> 38' 51.1" to 18<sup>o</sup> 39' 30" N. There is no legal issue against the project in the court of law. The Project is considered as Category "A" Project because of its location at a distance of 8.5 km from the inter-state boundary of Orissa and Andhra Pradesh. No forestland is involved. There are no National Parks, Wild Life Sanctuaries, Tiger/Elephant Reserves and Notified Biospheres in the study area. No schedule I species were recorded in the core zone. No species of flora were recorded in compliance with TULN Red List Data Book. There are no streams/nallahs flowing in the lease area. There will be no wastewater discharge outside the lease area. Domestic wastewater to a tune of 1.5 KLD will be generated which will be sent to septic tank followed by soak pit. There is no

possibility of intersection with the ground water as the mine workings throughout the life is about RL250 to RL195 m above the general ground level. As per Ground water department the ground water level in the area is 30 to 35 m below ground level. Gomukhi river is flowing a distance of 1.2 km. Mine working will be opencast manual. Water requirement is 6 kld. Required water will be obtained from surface water. The baseline data was collected during October-December, 2010. AAQ, Water quality and Noise level parameters were found within permissible limits. Ground Water quality monitoring at appropriate locations is in compliance with SPCB norms. Public hearing was completed on 27.06.2012. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation.

It was observed by the EAC with respect to TOR condition no. "26", Proponent did not provide details on the preventive measures on Manganese poisoning. The TOR No 26 mentions that "Occupational health impact of project should be anticipated and prevention measures initiated. Details in this regard including manganese poisoning should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP".

Based on the presentation made, information furnished and discussions held, the Committee recommended the Project for environmental clearance subject to submission of supplementary information on manganese poisoning. If Proponent fails to submit the supplementary, the Committee was of opinion that the Project be rejected.

### **2.19 Amilia Limestone Mine with Limestone Production of 1.25 million TPA of KJS Cement Ltd., Village Amilia, Distt. Satna, Madhya Pradesh (217.512 ha) (Consultant: M/s Bhagavathi Ana Labs Ltd)-EC**

The Amilia Limestone mine is situated at Amilia Village in Maihar Tehsil of Satna District In Madhya Pradesh State. Amilia Limestone mine lease was initially granted to M/s Diwan Lime Co. Pvt. Ltd in the year 1971 by Government of Madhya Pradesh, covering an area of 217.512 ha for 20 years period w.e.f. 01.10.1971 to 30.09.1991. The area was worked as quarry lease before 1971. Thereafter the mining lease was renewed for 10 years i.e. fom 01.10.1991 to 30.09.2001. Further the mine lease has been renewed for 20 years i.e for the period up to 2021. Meanwhile the name of the company changed from Diwan Lime Co. (Pvt) Ltd to KJS cements Pvt. Ltd on 15.11.2007. The supplementary agreement to this effect was executed on 13.09.2009. The constitution of the company was again changed from Private Limited to Limited. The mining plan for renewal was approved. The schme of mining is under process of approval for the production of limestone up to 12,50,000 TPA. The ML area is located in the

jurisdiction of Village-Beldara, Girgita, Amilia Khurd, Lakhwar, Katia, Tighara & Maihar Tehsil-Maihar of District Satna (M.P). The Proposal was considered by the EAC in its meeting held during 28-30 June, 2010. TOR were issued by MoEF vide letter No. J-11015/175/2010-IA.II(M) dated 30<sup>TH</sup> July, 2010. The Proposal is for enhancement of production of limestone to 1.25 million TPA for captive use in their cement plant. The mine is reported to be closed presently. No forestland is involved. Mine working will be opencast mechanised involved drilling and blasting. Life of mine is 32 years. Ultimate working depth will be 32 m from general surface level (320 m ASML). Mine working will intersect groundwater table. Tamas River passes through the mine lease. Part of the lease area is Government land and partly agricultural land. The major portion of the study area has been covered by agricultural land (386.38 ha). Other land uses include plantations (0.44 ha), vegetation (7.86 ha), settlements (18.20 ha), water body (11.73 ha) and other areas for dumps and colony. Baseline data was collected during post-monsoon season in 2010. The baseline AAQ during the study period was below the prescribed National Ambient Air Quality standards. The M.P.P.C.B had conducted Public Hearing on 18.4.2011. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation. The Committee observed that even though there are 133 families with 684 people are within the premises of mine lease area, there is no mention of this issue in EMP report. Even though the Tamas river is flowing through mine lease area, no detailed studies had been carried out for possible pollution impacts.

Based on the presentation made, information furnished and discussions held, the Committee sought additional information on following:

1. R&R details for land oustees with compensation details should be provided.
2. Detailed ecological studies on Tamas River should be provided.

It was decided that the Proposal may be brought back before the Committee for its further consideration after the requisite information as mentioned above is furnished.

**2.20 Limestone Mine Project of M/s. Nalwaya Mineral Industries Pvt. Ltd., Village Nathara Ki Pal, Tehsil Sarada, Distt. Udaipur, Rajasthan (97.13 ha)-EC**

The consideration of the Proposal was deferred as the Project Proponent did not attend the meeting.

**2.21 Renewal and enhancement of production from 18134 to 1.25 lac TPA Kota Stone Mining Project of M/s Stone International Pvt. Ltd at Village Chechat, Tehsil Ramganj, District Kota, Rajasthan**

### **(25 ha) (Consultant: Perfect Enviro Solutions Pvt. Ltd)-EC**

The Proposal was considered by the EAC in its meeting held during 19-21 January, 2011. TOR were issued by MoEF vide letter No. J-11015/389/2010-IA.II(M) dated 13<sup>TH</sup> May, 2011. The proposal is for renewal and enhancement of production of kota stone from 18,134 TPA to 0.125 million TPA. The mine lease area is 25 ha. No forestland is involved. It has been considered as a Category 'A' project because of its location at a distance of 6.4 km from the Dara Willdlife Sanctuary and Mukandra Hills National Park. It is a violation case because the proponent has increased production from the mine during the year 2007-10 i.e. after the EIA Notification, 2006 without obtaining requisite prior environmental clearance. Mine working will be opencast semi mechanized involving drilling and blasting. Ultimate working depth will be 302 mRL. Water table is reported to vary between 285 – 290 mRL. Mine working will not intersect groundwater table. Backfilling is proposed which has already started. The backfilled area will be reclaimed by plantation. Water requirement is estimated as 25 kld, which will be obtained from nearby villages. The baseline data was collected during September-November, 2011. AAQ and water quality parameters were found within permissible limits. There is no litigation pending against the mining project. Public Hearing for the Project was conducted on 2.3.2012. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation. It was observed by the Committee that no Personal Protective Equipments (PPE) are provided by the company to the labours.

Committee desired a detailed plan with budgetary provisions on the Personal Protective Equipments (PPE) be submitted. While appraising the Proposal it was also observed that this is a violation case. Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to Ministry taking action as per the procedure evolved dealing with cases of violation and subject to obtaining necessary wildlife clearance from Standing Committee of National Board of Wildlife.

### **2.22 Small Scale Industry of M/s PMC Pvt. Ltd Village Paonarkhari, Distt. Bhandara, Maharashtra-TOR**

The consideration of the Proposal was deferred as the Project Proponent did not attend the meeting.

### **2.23 Expansion of production capacity from 1,547 TPA to 76,197 TPA ROM of Bauxite at Madadevia Bauxite Mine of M/s H.P. Thanki (Harjivandas Purushottamdas Thanki), Village Mahadevia, Tahsil**

**Kalyanpur, Distt. Jamnagar, Gujarat (32.3748 ha) (Consultant: Kadam Environment Consultant)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The Mahadevia Bauxite mining lease was granted to H.P Thanki by Government Order number MCR/1580(T-64)-9034 CHH dated 15/01/1982 and executed on 17/10/1983 for a period of 20 years. The lessee has applied for first renewal on 31/01/2002 and the application is pending with State Government. The proposed project is for the enhancement of production capacity from 1,547 TPA to 76,197 TPA ROM of Bauxite from the lease located at Survey No. 261 at village Mahadevia of Taluka Kalyanpur, Jamnagar District, Gujarat. The mining scheme with progressive mine closure plan was approved by IBM vide Letter No. 682(23)MS-573/2010 MCCM (N) UDP dated 29/03/2011 for a period of 2011-12 to 2013-14. As in the lease mining operations was being done since 1987, working pits are available and based on the geological data gathered from pit, ore reserves were calculated and on the basis of which 5,06,814 MT of Bauxite reserve under proved category (category 111) were found to be present. In the lease area, Overburden (mainly Gajcaly) is present upto a depth of 1.5 m below which Bauxite horizon with a zone thickness of 6.5 m is present. Mining will be done by Manual Open Cast method with the use of blasting, by forming one bench for overburden (OB) and four benches (one with 2.5m and three of 1.5m) for excavation of Bauxite. In the present plan period as per the IBM approved mining plan, total 2,27,544 Metric Tonnes (MT) will be excavated. Considering recovery percentage of 60, 1,36,526 MT of ROM of Bauxite will be recovered out of which 27,306 MT will be of abrasive grade (20% of production) and 1,09,220 MT of low grade (80% of production). At the end of plan period, 2.25 ha of area will be mined out with a working depth of 8.0 m with a generation of 73,655 m<sup>3</sup> of waste material which needs to be backfilled. Area available is much more than the material thus part of the mined out area will be backfilled i.e. 0.9207 ha, and rest 1.34 ha will be used as water reservoir. Up to the lease renewal period (year 2023), part of the lease will be converted into a single pit with dimensions of 440 m length and 216 m width and 8.0 m depth. In the proposed mining period the OB likely to be generated is in the form Gajclay, besides this other waste generate will be in the form of associated clay with Bauxite horizon as mineral waste which will be below the threshold grade and have no sale value. Considering 1.3 as swelling factor total 73,655 m<sup>3</sup> of waste will be generated which will be backfilled during the plan period. All air emissions, liquid and solid wastes will be handled as per the applicable norms of the MoEF, CPCB, & GPCB as relevant. Entire lease area is designated as Government waste land, which is a

barren land no agricultural and forest land is involved. No rehabilitation and resettlement is either required or proposed for the project as mining will be carried out entirely on Government Waste Land. Estimated cost of the project would be around Rs. 147 lacs only. It was observed by the EAC that the mine lease area is 6.05 km from the Marine National Park. It was mentioned by the Proponent that since the mine is located at a distance of 6.05 km from the MNP, it follows that in case the draft Eco-sensitive Zone Notification is finalized without major changes, the Mahadevia Bauxite Mine will not require permission from the NBWL.

However, EAC was of the opinion that the Proponent should get necessary NBWL Clearance from Standing Committee of National Board of Wildlife. While appraising the Proposal it was observed that this is a violation case. Based on the presentation made and discussion held, the Committee prescribed TOR for detailed EIA/EMP studies as follows subject to Ministry taking action as per the procedure evolved dealing with cases of violation and subject to obtaining necessary wildlife clearance from Standing Committee of NBWL.

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. 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 and mining technology and should be in the name of the lessee.
3. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/toposheet should be provided.
4. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
5. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
6. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
7. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
8. 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.
9. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of

- fauna, water bodies, human settlements and other ecological features should be indicated.
10. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
  11. A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon'ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
  12. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
  13. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  14. Impact, if any, of change of land use should be given.
  15. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  16. One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.

17. 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.
18. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
20. Details of water conservation measures proposed to be adopted in the project should be given.
21. 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.
22. 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. 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.
23. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
24. Details of rainwater harvesting proposed, if any, in the project should be provided.
25. 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.
26. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that

- out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  28. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
  29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  30. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted.
  32. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  33. Public health implication 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 allocation.
  34. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  35. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  36. 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.
  37. Details of litigation pending against the project, if any, with direction

- /order passed by any Court of Law against the project should be given.
38. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

## **2.24 Expansion of Mining activities from 71,500 TPA to 1,78,794 TPA ROM at Palakhada Bauxite Mine of M/s Saurashtra Minerals Pvt.**

**Ltd at Village Palakhada, Tahsil and Distt. Porbandar, Gujarat (65.3971 ha) (Consultant: Kadam Environment Consultant)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The Palakhada Bauxite lease was granted to SMPL by Government of Gujarat by the Order number MCR-1501-2734-CHH for a period of 20 years and executed on 16.11.1981. The first renewal was sanctioned vide Letter No. MCR-150/2734-CHH dated 12.07.2004 and executed on 06.01.2005 for 20 years i.e. from year 2001 to 2021. The proposed project is for the enhancement of production capacity from 71,500 TPA to 1,78,794 TPA ROM of bauxite from the lease located at Survey No. 185, 286, 290, and 299, at village Palakhada of Taluka and District Porbandar of Gujarat. The mining scheme with progressive mine closure plan was approved by IBM vide Letter No. 682 (23) MS-605/10 MCCM (N) UDP dated 28.07.2011 for a period of 2011-12 to 2015-16. In the mining lease bauxite horizon with a zone thickness of 5.5 m, soft and loose in nature occur in the form of bed, present below the cover of Gaj limestone (OB) with a thickness of 2.0m. Mining will be carried out by Semi-Mechanized Open Cast method without the use of explosives. The OB and bauxite will be excavated by forming one bench for each. The lease area was inspected by IBM officials on 15.09.2006 and pointed out the violation under Rule 13 (1) & 23 E (2). At the end of mining, total 2,39,610 m<sup>3</sup> of waste will be generated. this waste will be backfilled in 3.4 ha of the total area which will be available for backfilling i.e. 8.4 ha, and rest of the area will be used as water reservoir. Water will be required for domestic, green belt development, and dust suppression. Water stored in mined out pits will be used for green belt development and dust suppression while water supplied through tankers will be used for domestic purposes. Water requirement would be around 14.5 KLD. In the proposed mining period, the OB likely to be generated is in the form Gaj limestone, besides this other waste generate will be in the form of mineral waste (30% of ROM) with no topsoil. All this mineral waste would be below the threshold grade and has no sale value. All the OB and waste i.e.2,39,610 m<sup>3</sup> generated during the mining period will be backfilled into the mined out areas. All air emissions, liquid and solid wastes will be handled as per the applicable norms of the MoEF, CPCB, & GPCB as relevant. Entire lease area is designated as Government waste land, which is a barren land. No agricultural and forest land is involved. Lease does not attract any general conditions, as it does not fall within 10 km of Protected Areas, Critically Polluted areas as notified by the Central Pollution Control Board (CPCB) and Notified Eco-sensitive Areas or Inter-state / international boundaries. No rehabilitation and resettlement is either required or proposed for the project as

mining will be carried out entirely on Government Waste Land. Estimated cost of the project would be around Rs. 245 lacs only. While appraising the Proposal it was observed that this is a violation case.

Based on the presentation made and discussion held, the Committee prescribed the TOR for detailed EIA/EMP studies subject to Ministry taking action as per the procedure evolved dealing with cases of violation. The TORs prescribed by the Committee are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. Preliminary survey of flora and fauna in the study area.
3. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
4. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/toposheet should be provided.
5. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
6. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
7. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
8. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
9. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.
10. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
11. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
12. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
13. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  14. Impact, if any, of change of land use should be given.
  15. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  16. One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  17. 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.
  18. The water requirement for the project, its availability and source to be

- furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  20. Details of water conservation measures proposed to be adopted in the project should be given.
  21. 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.
  22. 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. 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.
  23. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  24. Details of rainwater harvesting proposed, if any, in the project should be provided.
  25. 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.
  26. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
  27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  28. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.

29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
30. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted.
32. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
33. Public health implication 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 allocation.
34. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
35. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
36. 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.
37. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
38. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- i) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- j) All documents may be properly referenced with index and continuous page numbering.
- k) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- l) Where the documents provided are in a language other than



- English, an English translation should be provided.
- m) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
  - n) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
  - o) 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 also be followed.
  - p) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

## **2.25 Expansion of Mining Activities from 9,029 TPA to 76,520 TPA ROM at Palakhada Bauxite Mine of M/s Saurashtra Minerals Pvt. Ltd at Village Palakhada, Tahsil and Distt. Porbandar, Gujarat (90.5279 ha)- (Consultant: Kadam Environment Consultant)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The Palakhada laterite lease was granted to SMPL by Government of Gujarat vide Order No. MCR/1571/S-126/7931-CHH/1331 dated 15.10.1980 and executed on 11.02.1981 for a period of 20 years i.e. from year 1981 to 2001. The lessee has applied for the renewal of the lease for 20 years period. The

mining plan of the lease was approved by the Commissioner Government of Gujarat vide Letter No. CGM/MC/APP/Parb/05/64-68 dated 13.01.2005. The proposed project is for the enhancement of production capacity of laterite from 9,029 TPA to 76,520 TPA ROM from the lease admeasuring 90.5279 ha and located at Survey No. 184, 186, 286, 290, 299, & 300 in village Palakhada of Taluka and District Porbandar of Gujarat. The Mining Scheme with Progressive Mine Closure Plan approved by Commissioner Government Gujarat is submitted under Rule 12 of MCDR, 1988 from year 2009-10 to 2013-14 vide Letter No. CGM/MC/142/2236-41 dated 22.06.2011. In the lease area laterite is present in bedded form upto 8.5 m depth without soil and overburden. Manual open cast mining method will be used without the induction of blasting and drilling. As per the mining plan, mining will be started in the northern part of the lease area, and will be advanced in southern direction keeping the face orientation in NW-SE direction. Mining will be carried out by making total five benches (first four with 2 m and fifth with 0.5 m depth) with width of 2.0 m for each. The length of the benches will vary from 186 m to 260 m. With the help of this waste material only 0.78 ha of mined out area will be backfilled and rest will be used as water reservoir. Plantation will be carried out at this area. Water will be required for domestic, green belt development, and dust suppression. Water stored in mined out pits will be used for green belt development and dust suppression while water supplied through tankers will be used for domestic purposes. Water requirement would be around 13.4 KLD. All air emissions, liquid and solid wastes will be handled as per the applicable norms of the MoEF, CPCB, & GPCB as relevant. Entire lease area is with SMPL since 1981, and is designated as Government waste land, which is a barren land no agricultural and forest land is involved. Lease does not attract any general conditions, as it does not fall within 10 km of Protected Areas, Critically Polluted areas as notified by the Central Pollution Control Board (CPCB) and Notified Eco-sensitive Areas or Inter-state / international boundaries. No rehabilitation and resettlement is either required or proposed for the project as mining will be carried out entirely on Government Waste Land. Estimated cost of the project would be around Rs. 245 lacs only. While appraising the Proposal it was observed that this is a violation case.

Based on the presentation made and discussion held, the Committee prescribed the TOR for detailed EIA/EMP studies subject to Ministry taking action as per the procedure evolved dealing with cases of violation. The TORs prescribed by the Committee are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. 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 and mining technology and should be in the name of the lessee.

3. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/toposheet should be provided.
4. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
5. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
6. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
7. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
8. 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.
9. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
10. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
11. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
12. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
13. Impact, if any, of change of land use should be given.
14. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation &

- Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
15. One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  16. 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.
  17. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  18. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  19. Details of water conservation measures proposed to be adopted in the project should be given.
  20. 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.
  21. 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. 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.
  22. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  23. Details of rainwater harvesting proposed, if any, in the project should be

- provided.
24. 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.
  25. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
  26. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  27. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
  28. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  29. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
  30. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted.
  31. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  32. Public health implication 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 allocation.
  33. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  34. Detailed environmental management plan to mitigate the environmental

- impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
35. 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.
  36. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- q) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- r) All documents may be properly referenced with index and continuous page numbering.
- s) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- t) Where the documents provided are in a language other than English, an English translation should be provided.
- u) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- v) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- w) 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 also be followed.
- x) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.26 Khamarigaon Decorative Stone Mine of M/s Galaxy Enterprises, Village Khamarigaon, Distt. Ganjam, Orissa (1.513 ha)-TOR**

This Project was inadvertently included in the Agenda; hence not considered.

**2.27 Renewal of Mining Lease Niduzuvvi Limestone Mine of M/s The India Cements Ltd at Village Niduzuvvi, Distt. Kadapa, Andhra Pradesh (335.06ha) with capacity (1.00 MTPA)-TOR**

The consideration of the Proposal was deferred on the request of Project Proponent.

**2.28 Kuchmaila Ochre, White Clay and Laterite Mine of M/s Smt. Nirmala Devi Khemka with production capacity of 1,50,000 TPA Village Kuchmaila, Tahsil Birsinghpur, Distt. Satna, Madhya Pradesh (24.587 ha) (Consultant: Grass Roots Research & Creation India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

Kuchmaila Ochre, White Clay & Laterite Mine is situated in Villages Kuchmaila, Taluka Birsinghpur, District Satna Madhya Pradesh in an area of 24.587 hectare. The area was previously held under prospecting license by the lessee. The Mining Lease was later granted in favour of Smt. Nirmala Khemka by the State Government of M.P. Vide No.-3-13/2003/12/2 dated 12.02.2004 for 30 years period. The mining lease deed was executed and registered on 05.11.2004 for period up to 04.11.2034. The proposed rate of Production is 1,50,000 TPA. The ML area is partly Government revenue land and partly private land. The mining lease area is located in Villages Kuchmaila, Taluka Birsinghpur, District Satna of Madhya Pradesh State between Latitude 24°51'10.2" to 24°51'22.5" N and Longitude 80°56'21.5" to 80°56'41" E. No National Park/Wildlife Sanctuary is located within the 10 km radius of the lease area. There is no interlinked project as this is a independent project for mining. This mining project falls under

Category "A" Project or activity 1(a) as per EIA Notifications 2006, 2009 & 2011 as the interstate boundary of U.P. is located within 10 kms from the ML area. Opencast other than fully mechanized method of mining will be done. The overburden/ mine waste will be in the form of unaltered sandstone and intercalated clay etc. This will be in loose form in the shape of chips and lumps. A total of 2600 MT per month of solid waste will be generated throughout the mine life. External dumping will be done for 3 years and then simultaneous backfilling has been proposed. The dumping will be done in the barrier zone. No external dump will remain at the end of mine life. Plantation will be carried out on the backfilled area and in boundary. Water for drinking will be sourced from nearby surface water source with due consent of the local panchayat and for mining and allied activities by mine sump or by nearby surface water source. The total requirement will be 16 KLD. There is no habitation and no R & R is required. The estimated project cost is Rs.10 millions. The expected life of mine is 20 years.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study subject to submission of revised Form-I. The TORs prescribed by the Committee are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.



9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should

- be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and

- whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
  - g) 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 also be followed.
  - h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

## **2.29 Expansion of Dhandra Gypsum Mine of M/s FCI Aravali Gypsum and Minerals India Ltd at Village Dhandra, Tahsil Anopgarh, Distt. Srirangagar, Rajasthan (132.37 ha) (Consulting Engineers Group Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

FCI Aravali Gypsum & Minerals India Ltd. (FAGMIL) was earlier a part of Fertilizer Corporation of India Ltd., functioning in the name of Jodhpur Mining Organization. These mines are in operation since 1966. Gypsum produced from Dhandra Gypsum Mine of FAGMIL, will be supplied to UP Bhumi Vikas Sudhar

Nigam (UP Agro), Plaster of Paris units and Cement Industries. Dhandra mine lease area spreads in an area of 132.37 ha, of which 86.00 ha Government wasteland, 46.37 ha private agricultural land located between 29°02'45.03" – 29°02'59.00" N Latitudes & 73°19'19.07 - 73°20'27.03" E Longitudes. Total 89.0827 ha area covered under excavation and this worked out area will be backfilled with some depression of 0.2 to 0.25 m and plantation will be done over the backfilled area. Mining Scheme including Progressive Mine Closure Plan for mineral gypsum for an area of 132.37 ha submitted under rule 22 of MCR 1960 & 23 (B) (1) of MCDR 1988 (Amendment) 2003 and approved SME, Bikaner, Rajasthan vide their letter No.SME/ BKN/Ganga/ Major/ ML-1/02/69 dated 06.01.2012. FCI Aravali Gypsum & Minerals India Ltd. (FAGMIL) was earlier a part of Fertilizer Corporation of India Ltd., functioning in the name of Jodhpur Mining Organization. The mine was closed, due to expiry of working permission. Earlier environmental clearance for the Dhandra Gypsum Mining Project was granted by MoEF on 26-05-2006 for the production capacity of 35,000 TPA vide their letter no. F.No.J-11015/145/2005-IA-II (M) dated 26.5.2006 FAGMIL proposed to reopen the mine with an expanded production capacity 1,00,000 TPA of Gypsum. Total water requirement in the proposed mining project is 5 KLD. This requirement will be met from groundwater. Power requirement is minimal, which is required for illumination in mines office and rest shelter only. The Gypsum deposit of Dhandra Gypsum Mine is covered by alluvium/ soil varying from 0.9 to 1.1m as over-burden. The OB generated during the mining, will be utilized simultaneously in backfilling of the worked out area. The mining shall be carried out by systematic benching. This benching will also give the desired production of the mineral gypsum. The proposed project does not involve any rehabilitation and resettlement.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

- 1) Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
- 2) Year-wise production details since 1994 onwards should be given clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 coming into force w.r.t. the highest production achieved prior to 1994.
- 3) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 4) 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 and

mining technology and should be in the name of the lessee.

- 5) 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.
- 6) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
- 7) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
- 8) A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon'ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
- 9) 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
- 10) A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 11) Impact of change of land use should be given.
- 12) R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample

survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.

- 13) One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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 justified. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
- 14) 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.
- 15) The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
- 16) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 17) Details of water conservation measures proposed to be adopted in the project should be given.
- 18) 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.
- 19) 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. 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.
- 20) Details of first order stream, if any passing through lease area and modification/ diversion proposed, if any and the impact of the same on the hydrology should be brought out.
- 21) Details of rainwater harvesting proposed, if any, in the project should

be provided.

- 22) 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.
- 23) Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quality, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
- 24) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 25) 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
- 26) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 27) Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
- 28) Phase-wise plan of greenbelt development, 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.
- 29) Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
- 30) Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.



- 31) Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
- 32) 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.
- 33) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
- 34) The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary

action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.30 Mining of sand, stone and Bajari from Giri River Bed of M/s Dev Raj Stone Crusher, P.O. Mauza Mohakampur, Nawada, Distt, Sirmour, Himachal Pradesh (9.668 ha)-TOR**

The consideration of the Proposal was deferred as the Proponent did not have Accredited consultant to present the case nor did Proponent himself presented the case.

**2.31 Sarai Dangri Sand/Moram Mining Project of M/s Chandra Bhushan Singh, with production rate of 60,000 Tons/annum at Village Sarai Dangri, Tahsil Sadar, Distt, Varanasi, Uttar Pradesh (11.825 ha) (Consultant: Grassroots Research and Creations India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The proposed project of 16.187 ha area is of river bed sand mining and falls under Category-"A" as per EIA Notification 2006 of the Ministry of Environment and Forests, New Delhi, due to the presence of Turtle Sanctuary within 10 km. The mining lease area is located in Village Sarai Dangri, Tehsil Sadar, District Varanasi, Uttar Pradesh. The proposed project activity will be carried out in the bed of the River Ganga located between Latitude: 25° 12' 45.60" N 25°12'26.27"N Longitude: 82° 59' 14.46" E to 82°59'24.40"E. It has been proposed to collect approximately 60,000 tonnes/year of sand/moram. No mining activity will be undertaken during the monsoon season. The mining is confined to extraction of sand/Moram from the river bed. The operation will be manual in which the river bed material will be collected in its existing form. Sand/Moram Mining will be carried out only up to a depth of 3 m, using hand tools like shovel, pan, sieve etc. Mining will be carried out only during the day time. Extraction of river bed material will be completely stopped during the monsoon season. The deposits occur in the middle/bottom of the river. During the lease period, the deposit will be worked from the top surface to 3 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate. In the proposed project there is no need of water to carry out operations but for drinking water which will be required for the working people and for dust suppression. The number of working people will be 25, so the water requirement for drinking and for dust suppression will be

around 0.7 KLD. This water will be supplied from the dug wells/bore wells by tankers. The Total cost of project would be around Rs. 18 lakhs.

While appraising the Proposal it was observed that this is a violation case. Based on the presentation made and discussion held, the Committee prescribed the TOR for detailed EIA/EMP studies subject to Ministry taking action as per the procedure evolved dealing with cases of violation and subject to obtaining necessary wildlife clearance Standing Committee of National Board of Wildlife. The TORs prescribed by the Committee are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.

12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along

- with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.32 Mudadev Sand/Moram Mining Project of M/s Chandra Bhushan Singh with production rate of 60,000 Tons/annum at Village Mudadev, Tahsil Sadar, Distt. Varanasi, Uttar Pradesh (11.825 ha) (Consultant: Grassroots Research and Creations India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The proposed project of 11.825 ha area is of river bed Sand/Moram mining and falls under Category- "A" due to the presence of Turtle Sanctuary within 10 km, as per EIA Notification 2006 of the Ministry of Environment and Forests, New Delhi. The mining lease area is located in Village Mudadev, Tehsil Sadar, District Varanasi, Uttar Pradesh Latitude: 25°12'42.80"N to 25°12'36.81"N Longitude: 82°58'17.02"E to 82°58'40.20"E. The proposed project activity will be carried out in the bed of the River Ganga. It has been proposed to collect approximately 60,000 tonnes/year of sand/moram. No mining activity will be undertaken during the monsoon season. So the river bed material will be replenished during the monsoon season every year. The mining is confined to extraction of sand/Moram from the river bed. The operation will be manual in which the river bed material will be collected in its existing form. Sand/Moram Mining will be carried out only up to a depth of 3 m, using hand tools like shovel, pan, sieve etc. Mining will be carried out only during the day time. Extraction of

river bed material will be completely stopped during the monsoon season. The deposits occur in the middle/bottom of the river. During the lease period, the deposit will be worked from the top surface to 3 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate. In the proposed project there is no need of water to carry out operations but for drinking water which will be required for the working people and for the dust suppression. The number of working people will be 25, so the water requirement for drinking and for dust suppression will be around 0.7 KLD. This water will be supplied from the dug wells/bore wells by tankers. The Total cost of project would be around Rs. 16 lakhs.

While appraising the Proposal it was observed that this is a violation case. Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to Ministry taking action as per the procedure evolved dealing with cases of violation and subject to obtaining necessary wildlife clearance. Committee prescribed the TOR for detailed EIA/EMP studies which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed



- in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  20. Impact of the project on land use including change of river course, if any, should be given.

21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM<sub>10</sub> particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any,

- should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.

- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.33 Thimapuram Quartz Mining of M/s Facor Alloys Ltd with production of 8380 Tons/Annum at Survey No. 29, Thimmapuram (V), Padmanabham (M), Visakhapatnam, District, Andhra Pradesh (50.75 ha)-TOR**

The consideration of the Proposal was deferred on the request of Project Proponent.

**2.34 Limestone Mining of M/s Chemical Limes Mundwa Pvt. Ltd at Village Lnana Rupasar and Bhadana, P.O. Mundwa, Tahsil and Distt. Nagpur, Rajasthan for Renewal of Limestone Mine (500 ha) with production capacity of 0.15MTPA (Consultant: J.M. EnviroNet Pvt. Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in

the prescribed format (Form-1) along with a Pre-feasibility Report.

Chemical Limes Mundwa Pvt Ltd (CLMPL) proposes for renewal of Limestone Mine (Minor Mineral) (ML Area: 500 ha, ML No : ML-147/92) with production capacity of 0.15 MTPA near Village Inana, Rupasar, Bhadana, P.O. Mundwa, Tehsil & District: Nagaur (Rajasthan) located between Latitude 27° 03' N – 27° 05' 4" N 27° 03' N – 27° 05' 4" N and Longitude 73° 50' 37.5" E - 73° 51' 14" E. Mining Lease for limestone near village Marwar Mundwa, Tehsil & District Nagaur for an area of 500 ha granted in favour of M/s Chemical Limes Mundwa Pvt Ltd vide order no F4(1) Khan / group -2/93/Jaipur dated 3rd July 1993 of Deputy Secretary (Mines) Jaipur (fifth renewal) for period of 10 years from 3.01.93 to 2.01.2003. The state Government vide its Notification no F 14(4) Khan / Gr -2/86/VI dated 26.08.96 & 10.10.96 has extended the period of leases from 10 years to 20 years. The original period of the above mining lease have been extended from 3.01.93 to 20 years vide office order no ME/NGR/CCI/ML-147/92/1200-6 dated 22.08.2001. The applicant intends to mine 0.15 MTPA of limestone from the allocated mining lease area of 500 ha. Proposed method of mining will be mechanized opencast. Mining involves drilling & blasting operations. 5 m high benches will be maintained. Minimum bench width of 15 m shall be maintained at any point of time. However, due care shall be taken to maintain the bench width 3 times of the width of mining equipment. In this region ground water is exists at deeper level. The total water requirement for the mine is estimated as 35 KLPD which is planned to meet cumulatively through bore wells, treated/ harvested rainwater. In this ML area, solid waste would be in the form of over burden which would be comprises of top soil & dolomitic rejects. These rejects will be reutilized in various activities. The water requirement for the mine area will have to be met through underground water and partially through other resources. The depth of water table varies between 60 to 100m below the ground. Mining lease area is comprises of mainly Govt waste land (409.31 ha) and private agriculture land (88.74 ha) and water body (seasonal river 1.95 ha). There is no forest exist in the ML periphery. For mining staff, the quantity of drinking water is very nominal i.e. to the tune of 15 KLPD. Source of drinking water will be Ground Water which shall be met through bore well in or around the area. Whereas overall water requirement would be 35 KLPD which includes harvested and treated water cumulatively. Total ML area is 500 ha. Out of this, at conceptual stage, total excavated area will be 194.17 ha, out of this 150.17 ha will be reclaimed by water reservoir and rest of the area (i.e. 44 ha) will be covered under plantation. The water reservoir will be fenced all around to prevent any accident. R & R Plan will be formulated as per the R&R policy. The domestic wastewater generated from mine and utilities will be disposed by Septic tanks and soak pits. Total cost of the mining project is estimated approximately 10.0 Crores.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards should be given clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 coming into force w.r.t. the highest production achieved prior to 1994.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
4. All corner coordinates of the mine lease area superimposed on High Resolution
5. Imagery/toposheet should be provided.
6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard 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 and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.

14. Details of the land for OB 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.
15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
16. 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 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.
17. 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). A copy of the forestry clearance should also be furnished.
18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
19. 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.
20. The vegetation in the RF / PF area with necessary details should be given.
21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
22. A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon'ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
23. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
24. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
25. Impact, if any, of change of land use should be given.
  26. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  27. One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  28. The mineralogical composition of PM<sub>10</sub> particularly for free silica should be given.
  29. 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.
  30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  32. Details of water conservation measures proposed to be adopted in the project should be given.
  33. 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.



34. 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. 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.
35. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
36. Details of rainwater harvesting proposed, if any, in the project should be provided.
37. 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.
38. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
39. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
40. Impact on local transport infrastructure due to the project should be indicated.
41. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
42. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
43. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
44. Phase-wise plan of greenbelt development, 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.

45. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
46. Public health implication 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 allocation.
47. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
48. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
49. 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.
50. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
51. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No.

J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.

- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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 process again with the revised documentation.

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.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.35 Iron Ore Beneficiation Plant with throughput of 0.75 MTPA to obtain 0.25 MTPA Beneficiated Ore of M/s NSL Mining Resources India Pvt. Ltd at Village Muddavaram, Distt. Kurnool, Andhra Pradesh (4.92 ha) (0.75 MTPA)(Consultant: Bhagavathi Ana Labs Ltd)-EC**

The Proposal was considered by the EAC in its meeting held during 24-26 August, 2011. TOR were issued by MoEF vide letter No-J-11015/134/2011-IA.II (M) dated 21.09.2011 The proposal is for setting up of a iron ore beneficiation plant having a capacity of 0.75 million TPA throughput. It was stated by the project proponent that the filter press technology will be adopted. The total area for the project is 4.92 ha. No forestland is involved. Make up water requirement of the project is estimated as 16.4 m<sup>3</sup>/hr. The required water will be obtained from groundwater. Although the project proponent has already collected the baseline AAQ data, the Committee desired that the baseline data during the ensuing post monsoon season should be collected. Accordingly Proponent collected AAQ during post monsoon 2011. These parameters are are to be within

permissible limits. About 0.50 MTPA tail cake is expected to be generated as solid waste. 30 % of solid waste generated from the tailings shall be used in the local brick manufacturing units which will be transported free of cost and incentives will be paid to the transporter. 70% Tailing cakes will be dumped along with overburden waste in the mines. In the initial 2 years, tailings generated will be stacked in surface dumps within the plant site. Dumps will be compacted with maximum dump height of 10 m. Waste dumps will be covered initially by geo textiles coir mats and grass seeds will be sown on mats. A retaining wall will be provided at the toe of the dump to arrest the surface runoff from the dumps. Trenches will be provided to collect runoff water from the dumps. Public Hearing was organized under the Chairmanship of Mr. Ram Shankar Naik, District Collector, Kurnool on 24<sup>th</sup> April, 2012. Subsequent to the Hearing and matters pertaining to the issues raised during PH Company requested District Collector to facilitate the constitution of a Committee for coordination of activities around the assessment of crop damage and potential compensation arising out of iron ore processing activities. The constituted Committee WILL consist of MRO, DRO,EE, APPCB,AD, Mines Agriculture Officer and Police Department to look into the issue. The Committee will also coordinate the local development activities of NSL.

Based on the presentation made, information furnished and discussions held, the Committee recommended the Project for environmental clearance.

**2.36 Chedvai Limestone Deposit (1.0 MTPA) of M/s New India Mining Corporation Pvt Ltd at Village Chedvai, Tahsil Jeauti, District Chandrapur, Maharashtra (293.12 ha)-(Consultant: Srushti Sewa, Nagpur)-EC**

The Proposal for limestone mine at capacity 1.0 MTPA of M/s New India Mining Corporation Pvt. Ltd, Village Chedwai, District Chandrapur in Maharashtra was considered in the EAC meeting held on 22<sup>nd</sup> December, 2009. The lease area of the mine was 293.12 ha which out of which 19.24 ha which was a private revenue land and 273.88 ha was forest land. Application for diversion of forest land was submitted on April, 18<sup>th</sup>, 2011. The site visit for proposed forest land for diversion is scheduled on 25<sup>th</sup> December, 2012 by DFO, Maharashtra. The company proposes to set up a cement plant in Chandrapur District. The mine will be captive to 2.5 MTPA Cement Plant. The life of the mine is 25 years. Government of Maharashtra vide letter no. MMN-1004/CR-696/UDYOG/9, dated 28-2-2006 has approved the grant of mining lease to NIMCO. The Mining Plan with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM) vide letter no. 314(3)/2009-MCCM(CZ)/MP/MS/PMCP-9 dated 31-12-2009. The mining is proposed on the hill top and the depth of the mine from hill top will be 24m. The method of mining will be opencast mechanised. The water table is at a depth of 10m below ground level. Mining will not intersect the ground water table. No National Park/Sanctuary/Eco-sensitive Zone is located within 10 km radius of the mine. The Pada Vegu River and Bapu River are

flowing at a distance of 1.5 and 2.0 km respectively. The OB will be dumped in the non-mineralised area with construction of garland drain to prevent spillage of waste. Proponent submitted EIA/EMP report along with Public Hearing Report to MoEF in November 2011. It was observed that the project is located in Critically Polluted Areas; accordingly clarification was sought from Proponent. Vide reference No NIMCO/EC/303/2012 dated February 23<sup>rd</sup>, 2012 Proponent clarified that the Proposed Mining Project is located at a distance of 54.5 km from the District Headquarters and is outside the Cluster mentioned in the OM dated 13.1.2010 and 15.3.2010. Proponent vide letter dated April 10<sup>th</sup> 2012 informed that they would be submitting a fresh application with enhanced capacity and had sought withdrawal of the earlier proposal. In view of the same, the proposal was considered by EAC in its meeting held on April 16-18, 2012 accepted the request. Proponent vide letter dated 10.4.2012 again requested MoEF to consider their proposal which they had withdrawn. Accordingly the proposal was considered by the EAC. Baseline data was collected from March 2010 to May 2010. All environmental parameters are to be within permissible limits. Public Hearing was conducted on 26.4.2011. The PH was chaired by District Collector, Chandrapur. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation of development activities. Total cost of the project is Rs. 4232.71 lakhs.

Based on the presentation made, information submitted and discussions held, Committee recommended the Project for Environmental Clearance subject to submission of the copy of Mining Plan with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines.

**2.37 Paretha Granite Deposit Mine with production of 2,65,000 TPA (ROM) of M/s Rajyog Minerals Pvt. Ltd near Village Paretha, Tahsil Nowgaon, Distt. Chattarpur, Madhya Pradesh (22.00 ha)(Consultant: Enkay Enviro Pvt. Ltd. Jaipur)-EC**

The proposal is for opening of a new mine for production of 2,65,000 TPA (ROM) of granite. The mine lease area is 22 ha. It has been considered as Category 'A' because of its location within 10 km of the interstate boundary Madhya Pradesh and Uttar Pradesh. No forestland is involved. Mine working will be opencast mechanized. Life of mine is 63 years. Estimated Project Cost is Rs. 7.67 Crores. Water requirement is estimated as 15kld which will be obtained from bore wells. The Letter of Intent was issued by Director of Geology and Mining, M.P. in favour of M/s Rajyog Minerals Pvt. Ltd. vide order no. 5298/Khanij/ N.KRA.23/ PL/ 10 dated 15.05.2011. Mining lease was granted by the Director, Department of Geology and Mining, Madhya Pradesh vide letter no. 11484-86/ Khanij/ N. KRA. 23/ 2010 Dated 26.07.2011. The lease deed was executed on 12.08.2011 for a period of 30 years. Mining Plan has been approved

by Director, Department of Geology and Mining, Madhya Pradesh, Bhopal vide letter no. 9982/ Bhoumiki-2/ N.KRA.16/ 2011 -12 dated 08.07.2011. The lease area is in a non – forest land, as per letter issued by Divisional Forest Officer, Chattarpur, Madhya Pradesh vide letter no. Kramank/ Ma. Chi./2010 – 996, Chattarpur dated 14.05.2010. There is no loss of agricultural and grazing land as the entire lease area (22.00 ha.) is Govt. waste land. An authenticated list of flora and fauna has been obtained from the General, Forest Division Office, Chattarpur, M.P. vide letter no. Ma. Chi/ 2012/ 455 dated 24.02.2012. Conservation Plan for schedule – 1 fauna Peafowl has been duly authenticated from the Office of Chief Conservator of Forests, Madhya Pradesh vide letter no. Ma. Chi./ 3278 dated 25.06.2012. The authenticated land use map of the study area has been obtained from the General Forest Division Office, Chattarpur, MP vide letter no. Ma. Chi./ 2012/ 455 dated 24.02.2012. There is no National Park, Wildlife Sanctuary, Biosphere Reserves, Wildlife Corridor, Tiger/ Elephant Reserve within 10 km radius of the mining lease area. The Proposal was considered by the EAC in its meeting held during 28-30 November, 2011. The Terms of Reference has been issued vide letter no. J-11015/ 238/ 2011-IA.II (M) dated 28.12.2011. The mining activity will result in an excavation of 8.24 ha area which will be backfilled and reclaimed and rehabilitated by local plantation. Waste dump in an area of 0.72 ha, will be reclaimed by plantation. Infrastructure area (0.015 ha) and road (0.02 ha) will be left for public use. Plantation in an area of 6.81 ha will also be carried out, which will further improve the environment and aesthetic beauty. Rest of the area (6.195 ha) will remain undisturbed. There is no habitation in the mine lease area. There will be no resettlement or rehabilitation involved in the project, hence R&R is not applicable. The base line study of one season-winter (December-2011 to February' 2012)) was carried out. All parameters were found to be within permissible limits. Public hearing was conducted on 08.07.2012. The PH was attended by Regional Officer, M.P.P.C.B. and Presided by Additional District Collector, Chattarpur. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation. It was observed by the Committee that there is a Scheduled-I species in the study area.

Based on the presentation made, information furnished and discussions held Committee recommended the Project for Environment Clearance subject to submission of detailed Conservation Plan for the Scheduled-I species found in the study area.

**2.38 Ongole Mgnetite Deposit of M/s The A.P. Mineral Development Corp. Ltd at Konijedu, Marlapadu, Sarvareddipalem, Yerrajerla and Kanduluru Villages, Ongole Mandal, Prakasam District, Andhra Pradesh for Mangetite Iron Ore Production 5.0 MTPA, Beneficiation 5.0 MTPA throughput to obtain 1.35 MTPA Concentrate (529.04 ha) (Consultant: Bhagvathi Ana Labs Ltd)-EC**

Terms of Reference for the Project was issued by MoEF vide Lr. NoJ-11015/257/09 – IA.II (M) Dated November 6th, 2009. The Konijedu-Marlapadu Magnetite Iron Ore Deposit is located at about 10 Km South-Southwest of Ongole city in Prakasam district of Andhra Pradesh. Andhra Pradesh Mineral Development Corporation Ltd (APMDC) intends to mine 5.0 MTPA of magnetite Iron Ore by mechanized opencast mining operations and Beneficiation of 5.0 MTPA of low grade Magnetite Iron Ore from Konijedu-Marlapadu Mines to produce 1.35 MTPA iron ore concentrate. The low grade iron ore from other mines of APMDC (located within 30 km distance) will also be beneficiated in this Beneficiation Plant. Mining Plan was approved vide Lr. No: MP/AP/PKSM/Magnetite – 194 – SZ dated 03.03.2009. There are no Reserve forests in the study area. Mining methodology include opencast mechanized mining. Water consumption will be 14876 m<sup>3</sup>/day. The secondary magnetic concentrate will be dewatered in a concentrate thickener and will be stored in a stockpile through filter. Thickener overflow clean water will be sent to recirculation water reservoir. Non-magnetic section from primary and secondary magnetic separator will be passed through spiral classifier. Dewatered sand (about 333 TPH) will be disposed into tailing dump. The overflow slurry from the slow speed spiral classifier of the tailing circuit will be fed to the tailing thickener. This tailing (Thickener underflow) will be discharged to the tailing dam area by pumping through pipe line. The iron ore tailings will be stored between tailings dam I & II and the two hillocks on East & West. The levels will be at 53.0m MSL in stage –I and at 63.0m MSL in stage –II. The total OB waste generated during life of the Mines is around 21.13 million tonnes Approx. 44.31 million tonnes of tailings (26.30 million tonnes of coarse tailings & 18.01 million tonnes of fine tailings) from Beneficiation Plant. Baseline AAQ data was collected during summer 2010. Air quality parameters are within permissible limits. Land include agricultural double crop (7.49%), Single crop (51.93%) Fallow 2.55%, plantation 11.56%, with/without scrub 16.62%, built up land 4.89% and water body 4.89%. Public consultation was completed on 17.12.2011. PH panel was chaired by District Collector, Prakasam District and attended by Environment Engineer, APPCB, Nellore. Public hearing was conducted successfully and issues raised by public were addressed by the project proponent with commitment for implementation. The EAC observed that the coordinates given by the Proponent in various documents such as Form-I and PFR, EIA/EMP Report are different. Furthermore it was also observed that 700 Crore litre/annum of water, which will be used up by the Company, would impact availability of water to general public and therefore warrant more stringent conservation measures by the PP.

Based on the presentation made, information furnished and discussions Committee sought additional information on following:

3. All the coordinates of the Project area would be reconciled forthwith and the correct ones furnished to MoEF for their record

4. Efforts would be made to further reduce water consumption in the production process and a detailed quantified note on such conservation measure submitted to MoEF within the next three months.
5. Possible contamination of groundwater by the stored tailing in the two ponds would be kept under constant surveillance and remedial measures initiated if so called for.
6. Possible health impacts such as silicosis due to dust would also be guarded against and periodic Reports on occupational health submitted as required.

It was decided that the Proposal may be brought back before the Committee for its further consideration after the requisite letter /information as mentioned above is furnished.

**2.39 Vishnupuram Limestone Mine of M/s The India Cements Ltd at Village Vishnupuram, Wadapally, Distt. Nalagonda, Andhra Pradesh for renewal of Mining Lease (production of 1.4 MTPA Limestone and 0.2 MTPA Shale) Captive Limestone Mine (1.4 MTPA) (323.14 ha) (Consultant: B.S. Envi-Tech (P) Ltd)-TOR**

The consideration of the Proposal was deferred as the Project Proponent did not attend the meeting.

**2.40 Krishnpuram Limestone Mine of M/s The India Cements Ltd at Village Pondugala and Pulipadu, Distt. Guntur, Andhra Pradesh (1.4 MTPA) (652.89 ha)-TOR**

The consideration of the Proposal was deferred as the Project Proponent did not attend the meeting.

**2.41 Devla Jakham II Soapstone Mine of M/s Associated Soapstone Distributing Co. Pvt. Ltd for production of 22,500 M.T. per Annum at Village Devla, Distt. Pratapgarh, Rajasthan (62.04 ha)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

This project is for mining of mineral Soapstone, (Old ML No. 03/92 & New M.L. No.10/2012], near village Devla, Tehsil Dhariawad, District Pratapgarh (Rajasthan) over an area of 62.04 ha of M/s Associated Soapstone Dist Co. Pvt. Ltd, 24 Akashwani Marg, Udaipur (Rajasthan). The Mining operation was



commenced in 1963. Its renewal over an area of 62.04 ha was granted vide Government order No. P- 5 (98) Khan / Group – 2 / 92 dated 27.12.2000 for a period of 20 years W.E.F. 28.03.1993 to 27.03.2013. The Mining Scheme for the period 2010 to 2015 was submitted under Rule 22 of MCR, 1960 and was approved vide SME/UDr-Cir/Mining Plan/SLM/F-37/09/283 dated 12.04.2010 and proposal was up to March 2015. The earlier environment clearance was granted by Ministry of Environment & Forests, New Delhi with the targeted production of 22,500 M.T. per year for mineral soapstone vide letter no. J- 11015/159/2003-IA II (M) dated 16.02.2005. Devla Jakham – II Soapstone mining lease having an area of 62.04 ha Tehsil Dhariawad, District Pratapgarh (Rajasthan) falls in G.T. Sheet No. 46 I/ 5 between the latitude 23°58'28" N to 23°58'59"N and Longitudes 74°18'43"E to 74°19'28"E. The present working is by the opencast semi mechanized mining method and same will also continue in future. The mining will be carried out by opencast semi-mechanized by forming suitable benches by making 10 mts. height and width in mineral deposit while in overburden height and width will be taken as 10 mts. The slope of individual bench will be kept at an angle of 80°. Forest land involved is 10822 ha, irrigated land is 3846 ha, un-irrigated land is 4453 ha culturable waste land is 4790 ha area not available for cultivation is 8030 ha with total area of 31941 ha. Drinking water is obtained from the Tube Well situated in the mine. Rain water collected in the pit/sump will be utilized for dust suppression and green area development. Waste will be dumped on non-mineralized area by making terracing of 10 mts. height and retaining wall will be made at the toe side and plantation will be done on non-active dump. There is no hutment in the lease area. No human being is displaced from the area so no person will be affected; contrary local people will get job opportunity and better facilities. The mine was started in the year 1963, and it is in force till date and renewal of lease will become due on 27.03.2013 for which application under rules has already been submitted to competent authority. Estimated project cost along with analysis in terms of economic viability of the project is Rs. 3.0 Crores. Committee desired a details on the measures to be taken for controlled blasting.

Based on the information furnished, presentation made and discussions held, the Committee suggested Proponent to obtain necessary forest clearance from MoEF. Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

- 1) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 2) 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 and mining technology and should be in the name of the lessee.
- 3) All corner coordinates of the mine lease area superimposed on High

- Resolution Imagery/toposheet should be provided.
- 4) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - 5) Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - 6) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - 7) Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  - 8) 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.
  - 9) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
  - 10) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
  - 11) 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/ Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
  - 12) A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  - 13) Impact, if any, of change of land use should be given.

- 14) R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
- 15) One season (non-monsoon) primary baseline data on ambient air quality (PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
- 16) 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.
- 17) The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
- 18) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 19) Details of water conservation measures proposed to be adopted in the project should be given.
- 20) 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.
- 21) 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. 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.

- 22) Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
- 23) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 24) 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.
- 25) Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
- 26) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 27) 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
- 28) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 29) Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
- 30) Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted.
- 31) Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
- 32) Public health implication 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 allocation.
- 33) Measures of socio economic significance and influence to the local

community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.

- 34) Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
- 35) 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.
- 36) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
- 37) The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

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.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.42 Sand, Stone and Bajri Quarry of M/s Shivalik Stone Crusher with production capacity of 13,000 Tons/annum at Village Kungrat, Tahsil Haroli, Distt. Una, Himachal Pradesh (8.14 ha) (Consultant: Grassroots Research and Creations India (P) Ltd) - TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

The project is proposed by M/s Shivalik Stone Crusher for sand, stone & *bajri* from the bed of Kungrat Khad (tributary of Soan River). The Lease Period is 28-05-2008 to 27-05-2013. Proponent had applied for renewal on 22-08-2012. The project site lies on Kungrat Khad (tributary of Soan River) and adjacent hill located between Latitude 31°22'36.992" N to 31°22'31.571" N and Longitude 76°13'40.628" E to 76°14'0.124" E with Interlinked Shivalik Stone Crusher unit. The interstate boundary between Himachal Pradesh and Punjab lies at about 7 km in South direction. There is no Wildlife Sanctuary/National Park. The khad is seasonal, thus the stream will remain unaffected. Collection of minerals will be done manually from the khad and semi-mechanized from the hill. Mining will be carried out only upto a depth of 3 feet bgl or above groundwater level whichever is less. Bajri and Boulders will be sent to the crusher and sand will be directly marketed. Mining will not be carried out during monsoon season and night time. No mining will be done within 1/5<sup>th</sup> of river span or 5 m from the bank. Check dams will be built for protection of banks. No mining will be done within 75m of its periphery. Vehicles with valid 'pollution under control certificate' will be deployed for transportation of minerals. Solid waste (11900 metric tonnes) will be used for backfilling of mined out pits. Water requirement is 1.1 kld. Rest shelter with sanitation facilities for the workers will be provided. Safety training will be given to the workers on regular basis. Total Cost of Project is Rs 23 Lakhs.

While appraising the Proposal it was observed that this is a violation case. Based on the presentation made and discussion held, the Committee prescribed the TOR for detailed EIA/EMP studies subject to Ministry taking action as per the procedure evolved dealing with cases of violation. TORs prescribed by the Committee are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan (eco friendly mine plan), EIA report and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
7. 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.
8. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.

13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
20. Impact of the project on land use including change of river course, if any, should be given.
21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline



- AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.

33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) 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 also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.43 Limestone Mine of M/s. Tata Chemicals Ltd with production capacity of 0.014 million tonnes per Annum At Survey No. 207/ part, Village Aniali, Taluka Ranavav, District Porbandar, Gujarat State (12.27 ha)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

Aniali Limestone mining lease, measuring 12.27 hectares (ha.), is a captive mine of TCL, and is in survey no. 207/ part, of Aniali village in Ranavav Taluka of Porbandar district, Gujarat located between Latitude 21° 42' 10.09" to 21° 42' 22.49"N and Longitude 69° 49' 17.35" to 69° 49' 28.01"E. The original lease deed was executed by TCL on 23.12.1966 (Grant Order No MCR-1565/13876/CHH, dated 07.07.1966). TCL has applied for 1st renewal No A/WG/5913/85 on 02.09.85. Mine lease was granted vide Grant order No MCR-1585 (T-43) 4266-Chh, dated 22.11.2004. TCL has applied for 2nd renewal vide letter No A/WG/1409/2005, dated 17.11.2005 and the lease renewal is pending with the Gujarat Govt. The project has been proposed for an annual production of 0.014 Million Tonne Per Annum of chemical grade limestone by open cast mechanized method. The lease area is government waste land. No forest land is involved. There is practically no soil cover as well as overburden on lime stone, however, if some soil is available it will be removed and carefully stored for use in plantation purpose. The project has no other interlinked project. The project activity falls under category 'A' because the lease area is located within 10 km from the boundary of Barda Wildlife Sanctuary, notified under the Wild Life (Protection) Act, 1972 as per General Condition 1 of the Environmental Clearance

notification 2006, as amended from time to time. Total life of the mine is 26 years. The mine will be worked by fully mechanized opencast method of mining. Water requirement for human consumption, plantation and dust suppression is 10 KLD, which shall be met from the ground water sources. Domestic waste water will be disposed in to soak pit. The deposit of the lease area is horizontally bedded and totally outcropping. There is neither any overlying waste stratum nor any overburden. Hence, no overburden or mine reject generation is anticipated during the mining operations. After sizing, sized material will be transported to the chemicals complex at Mithapur. The production from the mine was carried out during 1986 to 1989. During this period, the maximum Annual Production was 29,404 tonnes only. No mining activity is carried out since 1989 till date.

The mining plan under rule 11 of MCDR 1988 was approved by Controller of Mines, Indian Bureau of Mines, Udaipur, vide Letter No. 682(23)(373)/2005 MCCM (N) UDP dated 24.03.2005. However, due to requirement of prior Environmental Clearance from the MoEF as per Notification dated 14<sup>th</sup> September, 2006, no mining activity is carried out. Now keeping in view the gap between the annual demand and the quantity of RoM received from captive mines is substantial and thus the company intends to bridge this gap by winning limestone from the proposed project. The production (ROM) targets of limestone will be 0.014 Million metric tonnes per annum. The existing mine lease area is designated as government waste land and has no human settlements and hence, no R & R is envisaged. The Capital cost of proposed project is 0.39 crores.

Based on the information furnished, presentation made and discussions held, the Committee intimated Proponent to obtain necessary wildlife clearance from the Standing Committee for National Board of Wildlife. Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards should be given clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 coming into force w.r.t. the highest production achieved prior to 1994.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
4. All corner coordinates of the mine lease area superimposed on High Resolution
5. Imagery/toposheet should be provided.

6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard 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 and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.
14. Details of the land for OB 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.
15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
16. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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.

17. 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). A copy of the forestry clearance should also be furnished.
18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
19. 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.
20. The vegetation in the RF / PF area with necessary details should be given.
21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
22. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
23. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
24. Impact, if any, of change of land use should be given.
25. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
26. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
27. The mineralogical composition of PM10 particularly for free silica should be given.
  28. 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.
  29. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  31. Details of water conservation measures proposed to be adopted in the project should be given.
  32. 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.
  33. 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. 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.
  34. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  35. Details of rainwater harvesting proposed, if any, in the project should be provided.
  36. 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.
  37. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total

- waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
38. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  39. Impact on local transport infrastructure due to the project should be indicated.
  40. 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 increased 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 infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  42. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
  43. Phase-wise plan of greenbelt development, 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.
  44. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  45. Public health implication 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 allocation.
  46. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  47. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  48. 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.



49. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
50. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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 process again with the revised documentation.

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.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.44 Limestone Mine of M/s. Tata Chemicals Ltd. with annual production rate of 0.05 million metric tonnes at Survey No. 21/part, Village Aniali, Tahsil Rananav, District Porbandar, Gujarat State (15.99 ha)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

Aniali Limestone mining lease, measuring 15.99 hectares (ha.), is a captive mine of TCL, and is in survey no. 21 part, of Aniali village in Ranavav Taluka of Porbandar district, Gujarat. The original lease deed was executed by TCL on 25.05.1987 (Grant Order No. MCR-1582(T-149)-GOI-235-CHH Dated 25.11.1986). TCL has applied for the 1st lease renewal vide TCL letter No W/G/568/2006, dated 28.04.2006, which is pending with the Government of Gujarat. The project activity falls under category 'A' because the lease area is located within 10 km from the boundary of Barda Wildlife Sanctuary, notified under the Wild Life (Protection) Act, 1972 as per General Condition 1 of the Environmental Clearance notification 2006, as amended from time to time. The proposed rate of production is 0.053 million tonnes per annum. The area falls within the boundary of the village Aniali. It is located at about 0.79 km to the south of Aniali village between Latitude 21° 40' 54.15" to 21° 41' 7.97" N and Longitude 69° 50' 46.42" to 69° 51' 13.94"E. The project has been proposed for an annual production of 0.053 Million Tonne Per Annum of lime stone of chemical grade by open cast mechanized method. The lease area is government waste land. No forest land is involved. There is practically no soil cover as well as overburden on lime stone, however, if some soil is available it will be removed and carefully stored for use in plantation purpose. As no overburden waste is envisaged and since no other waste material is available in the nearby areas, backfilling of mined out area is not possible. When the pit reaches the ultimate depth at the end of mine life, In accordance with the approved mine closure plan, the pit area will be converted into water reservoir and the rehabilitation/reclamation of the remaining mined out area will be done by way of tree plantation along lease boundary, as per CPCB guidelines. Green barriers will be created by plantation as per CPCB Guidelines. Water requirement for the proposed project for domestic use, dust suppression and plantation, will be 30

KLD, which will be met from ground water resource. Domestic waste water will be disposed in to soak pit. Central Ground Water Board has already granted NOC for withdrawal of ground water. The existing mine lease area is designated as government waste land and has no human settlements and hence, no R & R is envisaged. The cost of project is Rs. 0.39 crores. Total life of the mine is 15 years.

Based on the information furnished, presentation made and discussions held, the Committee intimated Proponent to obtain necessary wildlife clearance from Standing Committee OF National Board of Wildlife. Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards should be given clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 coming into force w.r.t. the highest production achieved prior to 1994.
2. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
3. All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
4. All corner coordinates of the mine lease area superimposed on High Resolution
5. Imagery/toposheet should be provided.
6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard 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 and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.
14. Details of the land for OB 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.
15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
16. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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.
17. 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). A copy of the forestry clearance should also be furnished.
18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
19. 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.
20. The vegetation in the RF / PF area with necessary details should be given.
21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
22. 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, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above should be obtained from the State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
23. A detailed biological study for 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, duly authenticated, separately for core and buffer zone should be furnished based on 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 and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  24. Impact, if any, of change of land use should be given.
  25. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  26. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  27. The mineralogical composition of PM10 particularly for free silica should be given.
  28. 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.
  29. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.

30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
31. Details of water conservation measures proposed to be adopted in the project should be given.
32. 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.
33. 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. 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.
34. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
35. Details of rainwater harvesting proposed, if any, in the project should be provided.
36. 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.
37. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
38. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
39. Impact on local transport infrastructure due to the project should be indicated.
40. 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 increased 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 infrastructure facilities to be provided for the mine workers should be included in the EIA report.

42. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
43. Phase-wise plan of greenbelt development, 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.
44. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
45. Public health implication 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 allocation.
46. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
47. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
48. 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.
49. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
50. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) 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 prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF 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 process again with the revised documentation.

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.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.45 Guma Limestone Mine with Production Capacity of 3.2 MTPA of M/s Grasim Industries Ltd at Village Guma, Distt Raipur, Chattisgarh (157.122 ha)-TOR Reconsideration**

The Proposal was considered by the EAC in its meeting held on 25-26 March, 2010. TOR were issued by MoEF vide letter dated 6<sup>th</sup> April, 2010. Guma limestone mine (157.122 ha) with Limestone Production Capacity of 3.2 MTPA is located at Village - Guma, Tehsil – Palari, District – Baloda Bazar, State – Chhattisgarh. With reference to the application for the Project for obtaining EC on 16<sup>th</sup> February, 2010, ToRs were prescribed in the name of M/s. Grasim Industries Ltd. Grasim Industries Limited demerged in to Samruddhi Cement Ltd,



which further amalgamated with UltraTech Cement Ltd. on 15<sup>th</sup> July 2010. Revised Letter of Intent (LoI) obtained by State Govt. of Chhattisgarh (in the name of M/s. UltraTech Cement Ltd.) dated 29<sup>th</sup> Dec, 2010. In this connection, Proponent submitted request for amendment in ToR letter (regarding name change from Grasim Industries Ltd to UltraTech Cement Ltd on 12<sup>th</sup> Dec 2011 followed by letter dated 1<sup>st</sup> may 2012. The validity of ToR was up to April 2012. The correspondence in this regard made to MoEF vide letter No. 18<sup>th</sup> July 2012 along with Chronological Sequence of events that took place during the execution of project. The Proposal was considered by the EAC in its meeting held in March 2010 and suggested to submit complete documents i.e. copy of order of Hon'ble High Court of Bombay and Gujarat, Resolution of the M/s Grasim Industries for amalgamation into M/s. UltraTech Cement Ltd and the copy of the dissolution certificate of M/s Grasim Industries issued by Registrar of Companies. Company submitted requisite documents to MoEF along with request for extension of validity of TOR vide letter dated 12.7.2012.

Based on the documents submitted, information furnished and discussions held the Committee recommended changing the name of the Company from Grasim Industries Ltd to UltraTech Cement Ltd. Committee also recommended the extension of validity of the TOR for one more year.

#### **2.46 Donkhera Dolomite and Baryte Mining Project of M/s Shri Satveer Singh at Village Donkhera Tahsil Narnaul, Distt Mohindergarh, Haryana (24.30 ha)-TOR Reconsideration for Public Hearing Exemption**

The Proposed Donkhera Dolomite & Baryte Mining (24.30 ha) is in Village Donkhera, Tahsil Narnaul, Haryana. The Proposal was considered in EAC Meeting held during 22-24<sup>th</sup> August, 2007. The Proponent was informed to get the approval of the competent authority under Forest (Conservation) Act, 1980. Accordingly Proponent submitted NOC from the Distt. Forest Officer, Mohindergarh, Haryana dated 20.3.2012. The Proposal was re considered by the EAC in its meeting held during August 29<sup>th</sup> -31<sup>st</sup> 2012. TOR letter was issued by MoEF vide letter dated 2<sup>nd</sup> November, 2012. Vide letter dated October 22<sup>nd</sup> 2012 Proponent requested MoEF for Public Hearing exemption. The proponent mentioned that they had already conducted Public Hearing on 9<sup>th</sup> August 2006. Proceedings of Public Hearing were submitted to MoEF in August 2007. Vide letter dated 22<sup>nd</sup> October, 2012 Proponent noted that they had been called for the interaction by MoEF. MoEF advised to update the EIA report based on the fresh monitoring which they agreed.

Based on the, information furnished and discussions held, the Committee was of the view that as the PH was held before the EIA Notification, 2006, it would not be advisable to exempt the Public Hearing.

**2.47 Expansion of Narwapahar Mine of M/s Uranium Corporation of India Pvt. Ltd. Distt. East Singhbhum, Jharkhand (1000 TPD to 1500 TPD) (456.62 ha)-Consultant: Mecon Ltd.-TOR Reconsideration**

The Proposal was considered by the EAC in its meeting held on January, 19-21, 2009. TOR were issued by MoEF vide letter dated 23<sup>rd</sup> February, 2009. The Proposal is for enhancement of production of uranium ore from 0.3 million TPA to 0.45 million TPA. The earlier clearance was granted on 12.11.1987. The mine lease area is 456.62 ha, which includes 25.56 ha of forestland. Working will be underground mechanized by horizontal cut and fill method. The water requirement is 1860 kld. The ore will be transported to Uranium Mill AT Jaduguda at a distance of about 10 km. The ultimate working depth will be 450 m bgl (-325 Mrl). Groundwater table is 1t 140Mrl. Vide lettr No. UCIL/CMD/26/2012 dated 9<sup>th</sup> August, 2012, the Company requested MoEF to extend the TOR for one more year. They have also noted that Public Hearing is required for the Project. Though EIA/EMP report was ready in December 2011, application could not be made for Public Hearing till date owing to the local situation. As per MoEF O.M. dated 22<sup>nd</sup> March, 2010, validity of TOR for the Project will expire on 22.2.2013 and the primary data collected during March-May, 2009 is now older than three years. In these circumstances Proponent requested extension of TOR for one more year.

Based on the presentation made, information furnished and discussions held, the Committee recommended extension of the validity period of TOR for one more year.

**2.48 Enhancement of Ore Processing/Beneficiation capacity in Rajhara Hill (719.60 ha) of M/s SAIL Distt Durg, Chattisgarh (9.55 MTPA to 14 MTPA)-Reconsideration of EC**

The Proposal is for enhancement of Ore Processing Capacity in Rajhara Hill Lease (719.60 ha) from 9.55 MTPA to 14.0 MTPA of Bhilai Steel Plant of Steel Authority of India Limited. Lease is renewed up to 31.05.2023. Forest area is 283.60 ha, revenue area is 436.00 ha. Forestry Clearance was obtained up to 31.05.2023. Nearest location is 98 km from Durg Railway Station. The Mine Lease area is located between Latitude 20° 33' 00" to 20° 35' 00" and Longitude 81° 00' 45" to 81° 07' 00". TOR for this Project was issued by MoEF on 13.01.2010. Baseline studies were conducted by NEERI from January 2010 to March 2010 and December 2011. Public Hearing was conducted on 05.05.2011. PH report was submitted to MoEF by 09.06.2011. Final EIA/EMP was submitted to MoEF by 25.07.2011. The Proposal was considered by the EAC in its meeting held on October 19-21, 2011. The Beneficiation Plant will be located within the

existing mine lease in Rahjhara Hill. The total lease area is 719.60 ha, which includes 283.60 ha of forestland. The enhancement of capacity of ore beneficiation is proposed to be achieved by installing new beneficiation plant in Jhardandalli Mines in Rahjhara Hill. It was also stated that the proposed beneficiation plant will receive iron ore from Raoghat mine located at a distance of about 95 km, besides the iron ore from Rahjhara Hill lease consisting of Dalli and Jhardandalli mines. It was observed during the presentation that the proposal of beneficiation plant involves setting up of a pelletization unit as well. It was further observed that neither the TORs prescribed by MoEF nor the Public Hearing report has made any specific reference to pelletization. It was also reported that the said mine and beneficiation plant has not been subjected to any environmental clearance in the past. It was observed that the EIA report for the project has been prepared based on data collected during January, 2010 – March, 2010. The Committee therefore pointed out that the data contained in the EIA is not representative of a single season but inter mixing of seasons has taken place, which is not as per the normal practice of EIA. The land requirement for the project is 132.0 ha and does not involve any forestland. The issues raised during Public Hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project. Based on the presentation made and discussions held, the Committee sought additional information. Proponent submitted requisite information to MoEF by 30.5.2012.

The Proposal was considered by the EAC in its meeting held during 25-27 July, 2012. It was clarified by the project proponent that Pelletization is not part of the project. The Beneficiation Plant is in replacement of the existing plant. It was reported that the raw material will be fed from Rawghat mine for which, environmental clearance was obtained on 4.6.2009. Forestry clearance for 283.60 ha was obtained on 6.4.2004 vide letter no. F.No. 8- 57/2003- FC dt 6.4.2004. The Oxidation pond is divided into two components. Capacity of the pond is 450 m<sup>3</sup> and total discharge rate is 250 m<sup>3</sup>/day. Greenbelt area will be 33 ha. AAQ data for Dec 2011 was collected and found to be within limits. The proposed new tailings pond is 24.00 ha and will be lined with clay. Rajhara Hills mine lease fell due for renewal on 1.6.2003, but operated without a fresh prior environmental clearance, thereby violating E(P) Act,1986. The Committee observed some deficiencies in baseline data on water quality, land requirement, source of lining material, budget etc.

Based on the presentation made and discussions held, the Committee had sought information on (i) Land requirement shall be given correctly including all inside and outside activities. (ii) Raw data (time series) for Manganese in ground water shall be provided. (iii) Source of Clay to be used in lining of Tailings Pond may be indicated. (iv) Breakup of financial allocation of pollution control measures should be furnished. (v) Details of project cost, EMP cost (recurring as

well as capital) may be given. It was decided that the proposal may be brought back before the EAC for its further consideration after the information as mentioned above, has been submitted by the proponent.

Project Proponent has now submitted requisite information point-wise to MoEF by 29.10.2012. Approved Modified Mining Plan was also submitted to MoEF by 17.12.2012. Based on the information furnished, presentation made and discussions held, the Committee recommended the Project for environmental clearance.

**2.49 Turamdih Uranium Expansion project of M/s Uranium Corporation of India Ltd for enhancement of production of Uranium from 750 TPD to 1500 TPD and ore processing plant from 3000 TPD to 4500 TPD and increase in lease area by 12.857 ha located at Distt. East Singhbhum, Jharkhand (238.344 ha) - Consultant: Central Institute of Mining & Fuel Research, Dhanbad Reconsideration of EC**

The Proposal was considered by the EAC in its meeting held on July 22-24, 2008 to determine the TOR. The Proposal is for enhancement of production of uranium ore from 750 TPD to 1500 TPD and ore processing plant from 3,000 TPD to 4,500 TPD and increase in area by 12.857 ha so as to make the lease area to 238.344 ha. The additional lease area of 12.857 ha is a forest land for which diversion had applied. MoEF have granted forestry clearance for 109.865 ha ( 35.415 ha + 74.450 ha) in two phases vide letter No. 8-204/85-FC dated 11<sup>th</sup> June 1987 & No. 8-136/2003-FC dated 07.04.2005. Proposal for diversion of forest land 31.77acre (12.857 ha) has been applied to the Nodal Officer, Dept. of Forest, Government of Jharkhand vide letter No. UCIL/ML/Forest/02 dated 21.09.2006. Divisional Forest Officer (DFO) had asked for submission of No Objection Certificate (NOC) for 0.66 acre of Govt. land from the district authority as the proposal involves small village road. The Dy. Commissioner, East Singhbhum has issued the required NOC vide letter no. 923, dated 23<sup>rd</sup> May 2012. UCIL has submitted the above NOC for 0.66 acre (0.266 ha) of Govt. land to office of Divisional forest officer, Jamshedpur for needful diversion and clearance of the forest land as required. Proposal has been processed by Jharkhand Government. In addition, an area of 47 ha has been acquired for tailing pond. The mine working will be underground by cut and fill method. TOR letter was issued by MoEF vide letter dated 4<sup>th</sup> September, 2008. Public Hearing was held on 23<sup>rd</sup> September, 2011. The compliance of the earlier EC conditions was presented and discussed in the EAC meeting held on 23-25 May, 2012. The earlier environment clearance was obtained on 22<sup>nd</sup> September, 1987 for the Turamdih mine and for ore processing on 30<sup>th</sup> April, 1987. The mine lease area after expansion will be 238.344 ha which will include 48.272 ha of forestland. In addition, an area of 135.27 ha outside the mine lease also forms part of the

project which include 74.45 ha of forestland. No National Park / Sanctuary is reported within 10 km of the mine lease. Mine working will be semi-mechanized underground by cut and fill method. The water requirement is estimated as 13,087 kld, out of which 8,500 kld will be fresh water from Kharkai River and 1,637 kld will be recycled water. Effluent from the ore processing plant will be treated in ETP having a capacity of 460 m<sup>3</sup>/hr. The mine discharge water is treated in mine water treatment plant for removal of silt and reused. Sewage is treated in septic tank and reuse for greenbelt irrigation. The baseline AAQ data showed that the RSPM levels are high. It was also observed that there was no AAQ monitoring station in west to east direction. The groundwater quality also showed higher content of iron and aluminum. It was observed that the fuel oil is being used in the boiler houses instead of LSHS as stipulated. The compliance status did not give data / figures relating to various parameters. The Committee desired that the proponent should present the compliance duly supported by data. Wherever there are variations from the stipulated conditions such as used of FO in place of LSHS, necessary permission from the Ministry may be obtained in this regard. It was also observed that as part of the earlier project, the proponent had proposed for installation of Sulphuric Acid Plant. However, the proponent is obtaining sulphuric acid from outside and thus there is a change in scope of the project for which EC was obtained. The issues raised during public hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project.

Based on the presentation made and discussions held, the Committee had sought information on (i) Year-wise production details (ii) A copy of the lease document (iii) Status of forestry clearance for the forestland involved in the project with supporting documents. (iv) A note clearly bringing out the changes made in the project profile with respect to the scope of project for which EC was obtained. Necessary modification in the EC conditions as may be required should be got done. Details in this regard should be submitted. (v) The stack height should be justified based on sulphur content. (vi) Details regarding handling and storage of sulphuric acid should be provided along with risk assessment for worst case scenario. (vii) Details of chemical safety in the mine and plant should be provided along with risk contours superimposed on the surface plan showing location of various activities. (viii) The noise levels should be rechecked and reconfirmed. (ix) In view of the observed high levels of RSPM, the proposed control measures should be given. (x) It was observed that there was no AAQ monitoring station from west to east, the pre-dominant downwind directions. The baseline AAQ data should be supplemented by collecting additional one month data representative of study area and taking into account the pre-dominant downwind direction and other sensitive receptors. (xi) Conservation plan for nesting sites of Monitor Lizard and Python should be prepared and submitted. (xii) Diesel exhaust values in underground mine should be given. (xiii) Impact of diesel on health should be discussed particularly keeping in view that

besides diesel there is presence of silica and radon in the area. (xiv) Selection of species for plantation should be justified. (xv) Details of R&R should be furnished. (xvi) Action plan to address the issues raised during public hearing should be provided. It was decided that the proposal may be brought back before the Committee for its further consideration after the requisite information has mentioned above has been submitted.

With reference to the above mentioned issues raised by the EAC, the Proponent has now submitted point wise reply to MoEF vide Reference No. UCIL/D(T)TMD/157/2012 Dated 8.12.2012. Accordingly the Proposal was re-considered by the EAC.

Based on the presentation made, information furnished and discussions held, the Committee recommended the Project for environmental clearance.

**2.50 Parsoda Manganese Mine with production capacity of 40,000 TPA of M/s Manganese Ore (India) Ltd at Village Parsoda, Tahsil Ramtek, Distt. Nagpur, Maharashtra (53.75 ha) Consultant: Bhagwati Ana Labs Ltd.- Reconsideration of EC**

The proposal is for opening of a new mine for production of 40,000TPA of manganese ore (ROM). The TOR for this project were prescribed on 30.04.2009. The Public Hearing of the project was held on 06.02.2010. The mine lease area of the project is 53.75 ha. No forestland is involved. No national park/wildlife sanctuary/ biosphere reserve/corridor of animals etc. reported within core and buffer zone of the mine. The Ghuskhri Reserve Forest is in the buffer zone of the mine at a distance of 2.7 km from the mine lease. The Kindsi reservoir is reported to be located at a distance of 6 km from the mine lease. The mine working will be opencast by semi-mechanized method involving drilling and blasting. The life of the mine is 10 years. The mine working will intersect the groundwater table. The proponent has provided hydro-geological report. The water requirement of the project is estimated as 17m<sup>3</sup> / day, which will be sourced from bore well and mine pit water. It has been reported that an ITI and an Engineering College are located at a distance of 500m (NW) and 800m (NE) respectively. The issues raised during Public Hearing were also considered and discussed during the meeting. It was observed that the public hearing was chaired at the level of SDO, Ramtek. It was reported that there is no court case pending against the project.

The Proposal was considered in its meeting held on 20<sup>th</sup>-22<sup>nd</sup> July, 2011. Based on the presentation made and discussions held, the Committee sought information on (i) A copy of valid LOI issued by the State Government should be provided. (ii) It may be ascertained from the State Pollution Control Board that the SDO, who chaired the public hearing was in the rank of ADM or above as is

required under the EIA Notification, 2006. (iii) Coordinate and location of mine lease site indicating location of ITI and Engineering colleges and other ecological features including habitations, should be provided on the toposheet (iv) Permission from the Competent Authority for drawl of ground water should be provided (v) Details regarding mine discharge (quantity) indicating discharge point/ source should be provided. (vi) Primary survey of flora and fauna including aquatic flora and fauna should be carried out and report furnished. (vi) Details of water bodies within core and buffer zone should be provided. (viii) Details of first order and second order streams emanating/ passing through the mine lease should be provided along with their diversion plan, if any and their impact on downstream users. (ix) Occupational health impact of project including manganese poisoning and preventive measures should be provided. (x) R&R details for land oustees with compensation details should be provided. (xi) In view of the proximity of railway track, NOC from Competent Authority in the Department of Railways should be provided. (xii) An undertaking on letter head stating that no court case relating to the project or related activities are pending in any Court of Law. (xiii) 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. (xiv) The Questionnaire for environmental appraisal of mining projects should be revised incorporating the above details and submitted. It may be ensured that the Questionnaire should be self explanatory.

Project Proponent submitted the requisite information to the MoEF vide Reference No. 99/469/EC-Parsoda/2011-12/304 dated 28<sup>th</sup> December, 2011. Accordingly, the Proposal was re-considered by the EAC. Based on the information furnished, presentation made and discussions held, the Committee recommended the Project for environmental clearance.

**2.51 Shirale Bauxite Mine of M/s Anand Mines located at Village Panundre and Mhalaswade, Ditt. Kolhapur, Maharashtra (278.85 ha) (Consultant: M/s Perfact Enviro Solutions Pvt. Ltd) - Reconsideration of EC**

The proposal is for opening of a new mine for production of 0.25million TPA of bauxite. The mine lease area is 278.85ha. No forestland is involved. However, it was observed that the mine lease area is surrounded by forest. The mine working will be opencast mechanized with jack hammer. Ultimate working is 1.5m bgl. Ground water table is reported to vary between 80-100m bgl. The mine working will not intersect the ground water table. Life of mine is 7 years. Water requirement is 47 kld which will be obtained from ground water. The baseline AAQ data showed the levels to be within permissible limits. TOR for this project were prescribed on 09.11.2009. Public hearing has been held on 02.12.2010. The issues raised during public hearing were also considered and

discussed during the meeting. It was reported that there is no court case pending against the project. The proposal was considered by the Expert Appraisal Committee in its meeting held on 28<sup>th</sup> -30<sup>th</sup> November, 2011. Based on the presentation made and discussions held, the Committee sought information on:

- a) Confirmation should be furnished from the Competent Authority in the State Forest Department that no forestland is involved in the project;
- b) Permission from the Forest Department for transportation of mineral through the forest area should be obtained;
- c) Large critical endangered and endemic plants and animals are reported in the core zone. However, no detailed study on critical habitats of flora and fauna has been provided, nor a conservation plan worked out. This study should be undertaken and detailed report along with conservation plan should be furnished;
- d) Confirmation from the CWLW as well as from National Tiger Conservation Authority should be obtained and furnished regarding the impact of the proposed project on Wildlife Habitat in the surrounding area and critical habitats including Tiger
- e) The public hearing is seen to be chaired by Deputy Collector however, as per EIA Notification, 2006, the public hearing has to be supervised and presided over by District Magistrate/District Collector/Deputy Commissioner or his or her representative not below the rank of and additional District Magistrate. Necessary clarification from the State Pollution Control Board should be submitted in this regard. Document in support of the reported postponement of PH should also be submitted.

It was decided that the proposal may be brought back before the committee for its further consideration after the requisite information as mentioned above has been submitted by the proponent. Vide letter dated 17<sup>th</sup> April, 2012, MoEF sought clarification from the Proponent on the above mentioned issues. Project Proponent vide letter dated November 6<sup>th</sup>, 2012 submitted additional requisite information to MoEF.

Based on the information furnished, presentation made and discussions held, the Committee recommended the Project for environmental clearance.

## **2.52 Chrome Ore Beneficiation Plant of M/s Rohit Ferro-Tech Ltd Distt Jajpur, Orissa- Reconsideration of EC**

The Proposal was earlier re-considered by the EAC in its meeting held on 21<sup>st</sup> -23<sup>rd</sup> November, 2012. The original Proposal of M/s Rohit Ferro Tech Limited



was for setting up of a Chrome Ore Beneficiation Plant at Kalinganarag Industrial Growth Centre Jakhapura, District Jajpur, Orissa with a throughput capacity of 1,55,000 TPA to yield 70,000TPA of Chrome Concentrates. The life of the mine was estimated as 10 years. The capital cost of the project was Rs.350 Lakhs. This Proposal, received in the Ministry vide letter dated 10.07.2008, was appraised by the EAC during its meeting held on 19-21<sup>st</sup> November, 2008 and TOR for this project were prescribed on 22.12.2008. The Project Proponent submitted their Application for environmental clearance on 15.06.2010 and the Proposal was considered by the Expert Appraisal Committee during its meeting held on 25-27<sup>th</sup> August, 2010. The baseline AAQ data was reported to be within prescribed limits; however, RSPM levels were seen to be relatively high. The Public Hearing for this project was held on 12.01.2010 as per EIA Notification, 2006 for throughput capacity of 1,55,000TPA. The issues raised during Public Hearing were considered and discussed during the meeting of the EAC. No National Park/ Sanctuary/Wildlife Reserve is reported within 10 km of the project site. No forest land is involved. Authentic list of flora and fauna was provided through DFO Cuttak. It was stated by the Project Proponent that there is no court case against the Project. EC was accorded vide letter no J-11015/322/2008-IA.II (M) dated 20<sup>th</sup> December2010, for the COB Plant at Kalinganagar Industrial Growth Centre, Jakhapura, District Jajpur, Odisha.

In the EAC meeting held in November 2012, the proposal was reconsidered in response to PP's request (vide letter dated 21<sup>st</sup> April, 2012) for permission to shift the COB Plant from its present location to a nearby plot allotted by IDCO (Government of Odisha), which is again coming under the same Kalinganagar Industrial Growth Centre, Jakhapura, District Jajpur, Odisha. However, the EAC sought additional information with regards to:

- (i) Authentic plotting of the present and proposed location of the COB vis a vis the Project area on a Toposheet with description of the chosen plots;
- (ii) The need/feasibility and possible impacts of the proposed shifting of location on human health and local environment.

It was decided that the proposal may be brought back before the Committee for its further consideration after the requisite information as mentioned above is submitted.

Based on the additional information submitted/clarification provided by the Proponent and discussions held, the EAC recommended the project for Environment Clearance.

\*\*\*\*\*

**Annexure****List of Participants**


---

1.	Sri M.S. Nagar	-	Chairman
2.	Dr. S. Subramanian	-	Vice-Chairman
3.	Dr. L Ajay Kumar	-	Member
4.	Dr. S.K. Peshin	-	Member
5.	Prof. Asha Rajbanshi	-	Member
6.	Prof. G.S. Roonwall	-	Member
7.	Sri P.K. Verdia	-	Member
8.	Director (Non-coal Mining), MoEF	-	Member Secretary
9.	Shri Neeraj Khatri, Dy. Director, MoEF		
10.	Representative of M/s Associated Soapstone Dist. Co. Pvt. Ltd		
11.	Representative of M/s Jaiprakash Associates Ltd		
12.	Representative of M/s Jindal Steel and Power Ltd		
13.	Representative of M/s Orient Cement		
14.	Representative of M/s MW Mines Pvt. Ltd		
15.	Representative of M/s Virendra Singh		
16.	Representative of M/s Anil Gupta		
17.	Representative of M/s Dilip Singh		
18.	Representative of M/s Hindustan Zinc Ltd		
19.	Representative of M/s Vivek Kalia		
20.	Representative of M/s Environics (India) Pvt. Ltd		
21.	Representative of M/s Venkata Narayana Reddy		
22.	Representative of M/s KJS Cement Ltd		
23.	Representative of M/s Stone International Pvt. Ltd.		
24.	Representative of M/s. H.P. Thanki		
25.	Representative of M/s Saurashtra Minerals Pvt. Ltd		
26.	Representative of M/s Nirmala Devi Khemka		
27.	Representative of M/s FCI Gypsum & Minerals India Ltd.		
28.	Representative of M/s Chandra Bhushan Singh		
29.	Representative of M/s Chemical Limes Mundwa Pvt. Ltd		
30.	Representative of M/S NSL Mining Resources India Ltd		
31.	Representative of M/s New India Mining Corp. Pvt. Ltd.		
32.	Representative of M/s A.P. Development Corp. Ltd		
33.	Representative of M/s Shivalik stone crusher		
34.	Representative of M/s Tata Chemicals Ltd		
35.	Representative of M/s Grasim India Ltd		
36.	Representative of M/s Satveer Singh		
37.	Representative of M/s Uranium Corp of India Ltd		
38.	Representative of M/s SAIL		
39.	Representative of M/s Manganese Ore (India) Ltd		
40.	Representative of M/s Anand Mines		
41.	Representative of M/s Rohit Ferro-Tech		

\*\*\*\*\*