

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

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

The 3<sup>rd</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 January 16<sup>th</sup> -18<sup>th</sup>, 2013. 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 2<sup>nd</sup> Meeting held during 19-21<sup>st</sup> December, 2012 were confirmed as circulated and corrected.

##### **1.2 Decision of EAC on Agenda No. 17 listed on 17<sup>th</sup> January 2013**

On 17<sup>th</sup> Morning, before commencing the deliberations on items listed for the day, Member Secretary of the EAC (Non Coal Mining) briefed the members on the unfortunate and shocking events of the previous evening, in which, a Dy Director of the Ministry and a Consultant representing the Project Proponent listed at Sl.No.1 of the Agenda Items for 17<sup>th</sup> Jan. 13, were apprehended by CBI, as reported in the News Papers. Member Secretary placed before the Committee the news clippings on the subject and submitted that the Committee may take a view on dealing with the Agenda Items from Orissa, particularly those in which the tainted consultant or the Project are involved. The Committee members felt deeply affected by the developments and they deliberated at length on the issues involved. The Committee unanimously felt that two of the items in which the project Proponent was a Public Undertaking of the State Govt. and none of the parties or individuals named in the News are involved, could be proceeded with in the normal course. It would be prudent however, to put on hold the Items which are subject matter of the serious developments of the previous

evening or relate to Consultant(s) implicated there in, till such time further directions from the Ministry are sought and received in the matter.

**2.1 Renewal and enhancement of Production of Soapstone and Dolomite to 2,20,000 (Soapstone 20,000 TPA and Dolomite 2,00,000 TPA) Mine of M/s S. Sohan Singh Joginder Singh & Co located at Village Semal Tehsil-Girwa, District-Udaipur, Rajasthan (Consultant: Apex Mintech Consultants)-EC**

The Proposal was considered by the EAC in its meeting held on December 22-24, 2010. The Proposal is for renewal of mine lease which fall due in 2011 and enhancement of production of soapstone and dolomite to 2,20,000 TPA. No forest land is involved. Mining lease having an area of 405.462 ha was granted w.e.f. 1.11.1971. This lease surrounds another lease of the same lessee i.e. Kalora mining lease from three sides. Presently, the working is in progress in both Semal and Kalora mines of the lessee. The major part of the mining activities is confined in one pit, though many other pits are existing in Semal mining lease. The main pit falls in both Kalora and Semal mines. All the infrastructure of both the leases like Office, Workshop, Staff Quarter, V.T. Centre, Magazine, ANFO mixing shed and other infrastructure falls in Semal mine. Ministry of Environment & Forests granted Environment Clearance for both the mining leases (Kalora & Semal) by a single order No. J-11015/163/2004 IA. II (M) dated 17.2.2005 for a combined production of 37,500 M.T. of Soapstone & 3,30,000 M.T. per year Dolomite. Consequently, on the present occasion of Mining Lease falling due for renewal, the lessee approached MoEF for a combined E.C. as it was granted earlier. The presentation for getting TOR was made on 17.9.2009, however the lessee was directed to apply for TOR for each of the two mines i.e. Kalora and Semal separately. The lessee acted accordingly and put up a separate application for E.C. of Kalora mines to the State Level Expert Appraisal Committee and completed all the prerequisites for E.C. of Kalora mine, which was granted by SEIAA, Rajasthan on 23.5.2010 vide letter no. F1 (4)/SEIAA/SEAC- Raj/Sectt./Project/Cat. 1(a) B1.(224)/10-11. They are seeking TOR and EC for the Semal M.L. renewal from MoEF, for which purpose, they have submitted the requisite Form I and Feasibility Reports. Ambient Air Quality data was carried for the month of March, April and May, 2011. It was recorded that the Ambient Air Quality data was within permissible limits. Public Hearing was conducted on 13.09.2011 and issues raised by public were addressed by the project proponent with commitment for implementation.

It was observed by the Committee that (i) the AAQ samples, especially SO<sub>x</sub> and NO<sub>x</sub> were analysed after 25 days of collection (ii) details on the CSR activities with budgetary provision was not provided (iii) details of outside lease area in between Western and Eastern side of the lease was not provided in Conceptual Plan. Committee asked Proponent to furnish this information within

two days after presentation. Vide letter dated 17.01.2013 PP submitted requisite clarification to MoEF. The letter clarifies the above issues as (i) a map on topo sheet was submitted showing core and buffer zone of 10 km radius showing western and eastern side barren without any habitation (ii) Details of CSR activities with budgetary provision was submitted (iii) clarification about analysis of AAQ was given in which PP stated that there was a typographical mistake which may please be rectified.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance.

## **2.2 Collection of Sand stone and Bajri Mining lease of M/s Devraj Stone Crusher, located at Village Newada, Tehsil Paonta Sahib, District Sirmour, Himachal Pradesh (9.668 ha)-EC**

The Proposal was first considered by the EAC in its meeting held during February 23-25, 2011. TOR were issued by MoEF vide letter No. J-11015/10/2011-IA.II (M) dated 28<sup>th</sup> March, 2011. The proposal is for production of 77,500 TPA of sand, stone and bajri put together from the bed of river Giri. The mine lease area is 9.668 ha. No forestland is involved. It has been considered as Category 'A' because of inter-state boundary with Uttarakhand at a distance of 5 km. Ultimate working depth will be 1 meter from river bed level. Mining will be manual without any drilling and blasting. The Mine lease is located between Longitude 77° 41' 06" - 77° 41' 15.8" and Latitude 30° 28' 56.1" – 30° 28' 59.4". M/s Dev Raj Stone Crusher have been granted mining lease for extraction of stone, bajri (cobbles) and sand by the State Government over an area of 9.6684 ha for a period of fifteen years. 51,600 metric tons of Stone and Bajri, per annum, shall be extracted for feeding the crusher. 25,800 metric tons of sand per annum shall be removed for free sale depending upon demand. 5,800 metric tons of waste silt and clay per annum would be left in the pits as back fill. Mining plan has been approved by the department of Industries vide letter dated 22/10/2011. Ambient air quality was monitored at 4 locations within a 10 km distance from the project site. The observed RSPM levels were in range of 20.5 to 55.4 µg/m<sup>3</sup>, while SPM was in range of 48.0 to 100.8 µg/m<sup>3</sup>. The range of SO<sub>2</sub> and NO<sub>x</sub> was 4.5 to 9.8 µg/m<sup>3</sup> and 5.4 to 19.8 µg/m<sup>3</sup> respectively. 2 Groundwater samples and 2 surface water samples were analyzed and concluded that the ground water at the site is safe for use as potable water. Public Hearing for the Project was conducted on 12.03.2012 and issues raised by public were addressed by the project proponent with commitment for implementation.

It was observed by the Committee that the air quality studies were carried out during January to March, 2011 which is deviation from the standard pattern given by IMD. Furthermore Project Proponent presented the data collected by someone else for other mine lease area. PP explained that the mine is very close and data could be same. It was also observed that the list of the Flora and Fauna

is not complete in respect to studies on smaller plants. Committee sought additional information as follows:

1. Project Proponent should collect the fresh data during up-coming summer season March-May and resubmit.
2. Data should be for Proponent's own mine lease area.
3. Primary survey of flora and fauna should be carried out and report 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 is furnished.

### **2.3 Kaguda Gypsum Mine of M/s RSMML located at Village Kaguda, District Jalore, Rajasthan-EC**

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

### **2.4 Jakharda Gypsum Mine of M/s RSMML located at Village Jkharda, District Barmer, Rajasthan-EC**

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

### **2.5 Limestone Mine of M/s Tata Chemicals Ltd., with production rate of 0.093 million tonnes/annum at Survey No. 207/ part, Village Aniali, Taluka Ranavav, District Porbandar, Gujarat (16.21 ha)-TOR**

The Proposed Limestone Mine Lease Area is located at Survey No. 207/part, Village: Aniali, Taluk: Ranavav, District – Porbander in Gujarat State between 21° 42' 18" to 21° 42' 31" N 69° 49' 13" to 69°49' 29" E. The project activity falls under category 'A' (Activity 1 A – Mining of Minerals) 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 land use of the mine lease area is government waste land (barren land). The original lease deed was executed on 29.10.1964 for a period of 20 years and thus, expired on 29.10.1984. The First renewal was executed on 21.08.1987 vide letter MCR-1583(T-4) GOI-184-CHH dated 09.09.1986 for 20 years and expired on 29.10.2004. The Tata Chemicals Ltd (TCL) has applied for 2<sup>nd</sup> renewal vide letter No AW/G/2558/ 2003 dated 21.10.2003 for 20 years and the lease renewal is pending with the Gujarat Govt. This mine has been worked during the years 1985-1994, when the maximum production during year

1987-88 was 55,065 metric tonnes. The mining scheme with progressive mine closure plan was approved by Indian Bureau of Mines, Udaipur vide letter no. 682(23) MS-228/2003 MCCM (N) UDP dated 29.01.2004 for period of 2003-04 to 2007-08. This Mining Scheme has expired on 31<sup>st</sup> March, 2008 without the mine being working and TCL has further submitted their next Mining scheme, which stands approved by the Regional Controller of Mines, Indian Bureau of Mines, Udaipur vide letter no. 682 (23) (MS-437/2008 MCCM (N) UDP Dated 21.10.2008 for period ending 2012-13. This mine is closed since 1994. The proposed rate of production is 0.093 million tonnes per annum. Total life of the mine is 5 years. The mine will be worked by fully mechanized opencast method. Water requirement for human consumption, plantation and dust suppression is 30 KLD, which shall be met from the ground water sources. Small amount of domestic waste water generation will be disposed in soak pits. The existing mine lease area is designated as government waste land and has no human settlements and hence, no R & R is envisaged.

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. 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 (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.
27. The mineralogical composition of PM<sub>10</sub> 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.

**2.6 Limestone mine of M/s Tata Chemicals Ltd with production rate of 0.043 million tonnes/ annum at Survey No. 207/part, Village Aniali, Taluka Rananav, District Porbandar, Gujarat State (21.04 ha) -TOR**

The Proposed Limestone mine is located at Survey No. 207/part, Village: Aniali, Taluk: Ranavav, District – Porbander, Gujarat between Latitude 21° 42' 22" to 21° 42' 33" N and Longitude 69° 49' 26" to 69° 49' 43" E. The land use of the mine lease area is government waste land (barren land). The project activity falls under category 'A' (Activity 1 A – Mining of Minerals) 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 original lease deed was executed by TCL on 23.12.1966 (Grant Order No. MCR-1565/13877/CHH, dated 07.07.1966). TCL has applied for 1<sup>st</sup> renewal on 09.09.1985. 1<sup>st</sup> renewal was granted vide order No. MCR-1585 – (T-44)-4267-CHH, dated 28.12.2004. The 1<sup>st</sup> renewal expired on 22.12.2006, therefore, TCL applied for 2<sup>nd</sup> renewal vide letter No. A/WG/1408/2005, dated 17.11.2005 and the lease renewal is pending with the Gujarat Govt. The Government of Gujarat has asked TCL in the meantime, to submit a fresh Mining Plan, duly approved by IBM, prior to getting the lease deed renewed. The mining operation was carried out during 1985-86 and 1987-88 when production of 13,322 and 712 tonne of Lime Stone respectively were achieved. Since 1988, the mine is not in operation. The proposed rate of production is 0.043 million tonnes per annum. Taking into consideration shape and nature of deposit and the targeted production, the mine will be worked by fully mechanized opencast method of mining. Total life of the mine is 11 years. Water requirement for human consumption, plantation and dust suppression is 10 KLD, which shall be met from the ground water sources. There will be no waste water generation from Mining activities. Small amount of domestic wastewater will be disposed in soak pits. The existing mine lease area is designated as government waste land and has no human settlements and hence, no R & R is envisaged.

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. 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.

## **2.7 Proposed Sachuli Sand Mine Project of M/s Krishan Pratap Singh with production rate of 40,000 Tonnes/Year at Village Sachuli, District Shravasti, Uttar Pradesh (12.86 ha) –TOR**

The proposed project of 12.86 ha area is of in-stream 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 Sohelwa Wildlife Sanctuary within 10 km radius of the project site. The mining lease area is located in Village Sachuli, Tehsil Bhinga, District Shravasti, Uttar Pradesh. The proposed project activity will be carried out in the bed of the Nepali Nalla between Latitude: 27°46' 39.35" N to 27°45' 30.30" N and Longitude: 82°2' 16.84" E to 82°1' 11.90" E. It has been proposed to collect approximately 40,000 Tonnes/Year sand. No mining activity will be undertaken during the monsoon season. The operation will be manual in which the material will be collected in its existing form. Sand Mining will be carried out only upto a depth of 1 m, using pole-bucket arrangement. The mining lease area falls in Survey of India 1:50,000 scale Toposheet No. 63L/01 (restricted). The proposed activity is to take place in the bed of the Nepali Nalla and hence there will be no change in land use. 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 nearby village by tankers. It was observed that PP had not filled Form-I properly. It was desired by the Committee to fill and submit the Form-I.

At the outset, the Committee noted that unlike the more prevalent conventional river-bed sand mining (confined to above water dry river bottom portions only), in-stream mining extracts sand from out of the flowing water stream, thereby creating turbidity downstream for indefinite distances depending on the rate and velocity of flow and gradient of the river. Prima facie, this type of mining has greater pollution potential and also impacts the flow characteristics of the stream. A policy prescription is called for as to whether in-stream mining should be permitted at all (especially for materials like sand) and if for compelling economic reasons or past practice, in the absence of alternative sources of sand in those locations, then it is imperative to predetermine the conditions to be imposed to minimize the adverse impacts of such in-stream mining. In response to Committee's pointed queries on the prevalence and impact assessment studies of in-stream mining, the Consultant of the PP quoted from International examples of such mining and how the pollution is kept under control. After further discussions on the subject, the Committee felt that it is

necessary to ascertain if CPCB has any guidelines on permissibility and regulation of in-stream mining. MoEF may also indicate if any such mining proposals have been granted EC in the past and if so, what were the conditions imposed? If any such policy or knowledge is not readily available at either end, the Committee feels that an independent site study by a sub-Committee of subject experts may precede prescription of any TOR for the instant Proposal.

Based on the information furnished and presentation made, the Committee decided to take up the issue with Central Pollution Control Board and ask CPCB's recommendation on the matter pertaining to in-stream mining. Meanwhile MoEF may explore its own policies pertaining to this issue. Proponent will be informed after receiving further advice in the matter.

**2.8 Expansion of Limestone Mine from 3.17 to 5.0 MTPA of M/s Emami Cement Ltd., Village Risda and Kukardih, Tehsil Baloda Bazar, District Raipur C.G. (395.05 ha) –TOR**

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

**2.9 Khasjamda Iron & Manganese ore mine with 0.50 MTPA Iron ore production of M/s Sri Ram Mineral Company, Village Khasjamda & Parambaljori, Tehsil Barajmda, District Singhbhum West, Jharkhand (265.878 ha) –TOR**

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

**2.10 Renewal of Mining of Ball Clay, white red and yellow Ochre (125000 TPA) of M/s Raw products plasters and fertilizers (Mines), Village Indo ka Bala & Chani, District Bikaner, Rajasthan (123.80 ha) -TOR**

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

**2.11 Expansion of Limestone Mining Lease from 3.75 MTPA to 9.10 MTPA of M/s Wonder Cement Ltd, at Village Bhatkotari, Lasrawan, Phalwa and Rasulpura, District Chittorgarh, Rajasthan (740.93 ha) -TOR**

This proposal is for expansion of Limestone Mining Lease from 3.75 MTPA to 9.10 MTPA at Villages–Bhatkotari, Lasrawan, Phalwa and Rasulpura, Tehsil–Nimbahera, District–Chittorgarh in Rajasthan, located between Latitude–

24°39'06" N & 24°40'20" N Longitude - 74°35'15" E & 74°38'06" E. This is an interlinked project with expansion of Integrated Cement Project - Clinker (2.0 to 6.0 MTPA), Cement (3.25 to 8.0 MTPA), CTPP (40 MW to 80 MW), D.G. Set (2.0 MW to 7.0 MW) & WHRB (2 x 9 MW). No Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserves etc.) within 10 km radius of the project site. 4 Protected Forest and 4 Reserved Forest falls at a distance of 3.0 to 9.0 km from mine site. WCL is proposing for capacity enhancement of existing limestone mine, cement plant, captive power plant, DG set and setting up of new Waste Heat Recovery Boiler (WHRB). The land measuring 191.064 ha is available for the expansion of the plant. The supply of limestone will be met from its existing captive limestone mine having mining lease area of 740.93 ha. WCL has obtained the environmental clearance for existing integrated cement project: cement production 3.75 MTPA, CPP 2x 40, DG set 1x 2 MW & limestone production of 3.75 MTPA in mine lease area of 740.93 ha. EC was granted vide MOEF letter no. J-11011/506/2007-IA II (I) dated 11 June 2008 & letter no. J-11011/437/2011-IA II (I) dated 19-6-2012. Amendment in EC regarding change in capacity of CPP (from 38 to 40 MW) & DG (6 to 2 MW) set has been obtained vide MOEF letter no. J-11011/506/2007-IA II (I) dated 4th Jan 2012. To keep pace with the growing demand of cement grade limestone the mining lease area was located by the department of Mines & Geology in Chittorgarh district and investigated during field season 2004-2005 and exploration was continued up to August 2006. The mining lease was granted vide Govt. order No. F5 (76) Khan /Gr.2/07 dated 23.08.08. The lease deed executed on 08.09.08 and registered on 09.09.08 for 30 years i.e, from 09.09.08 to 08.09.38. The lease area forms a part of the survey of India Toposheet No. 45 L/10. The mining plan has been approved by Indian Bureau of Mines, Ajmer, vide letter no 682(23) (755)/10-MCCM (N)-Udai dated 20-7-2011. Mining operations are carried out by fully mechanized opencast method, utilizing Heavy Earth Moving Equipment (HEME) Blasting is carried out to create fragmented material. Overburden & Waste rock will be used for filling low lying area and construction of haulage road. Top soil will be stacked at non mineralized area and will be utilized in green belt development. Total water requirement after proposed expansion of the project will be 112 KLD. Out of which 72 KLD water will be recycled and fresh water requirement for the project will be 40 KLD only. Fresh water will be used for drinking purpose. Total cost of the Project is Rs 10.36 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 (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.
28. The mineralogical composition of PM10 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.

## **2.12 Calcite Mine of M/s The A.P. Mineral Development Corporation Ltd., Village Karaiguda, Anathagiri Mandal, District Vishakhapatnam, Andhra Pradesh (16.463 ha) –TOR**

The proposed ML area is located at Karaiguda Village, Ananthagiri Mandal, Vishakhapatnam District located between Latitude - 18°18'22.8" and Longitude - 83°01'35.4". ML was issued vide Memo No. 17141 / MIII (2) / 2009 – 1, dated 16-09-2011. The present proposal aims at excavating Calcite at the rate of 30,000 TPA in an area of 16.463 Ha. As per the approved Mining Plan (Mining plan approval letter No. 4421 / MP – VSP / 204 dated 01-06-2012) life of the Mine is 25 years. Bondam Reserve Forest is at a distance of 1.4 Kms from the ML area. Other nine RF are within 10 km radius of the ML area. As proposed mine workings will be on the hilly area there will not be any intersection with Ground water. Total water requirement will be 2 KLD. Water is basically required for dust suppression & domestic purpose only. The water required for Domestic purpose and dust suppression will be met from the perennial streams passing on the north and east boundaries of the site. Mining operations will be carried out between 125MRL and 115MRL where the mineral calcite is proved to a maximum depth of 26m. The Mining operations will be carried out by Semi-mechanised opencast method by forming benches of 3.0m height. Waste water will be treated in septic tanks. Here the waste will be in the form of removal of OB and side burden while forming the development benches on either side of the mineral. This will be in the form of soil mixed lime concur and weathered granulite/clay and also the waste of 20% that is generated during the recovery

of mineral. The total of this waste will be around 51,265cum. This total waste will be stacked in a non-mining area by covering an area of 10250 m<sup>2</sup> to a height of 5.0m. This waste will be stabilized by putting plantations. There will not be any mineral rejects. No rehabilitation or resettlement plan is proposed as there are no habitations in the area. The project cost will be Rs.20 Lakhs.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study subject to submission of Tribal Clearance/Tribal People Resolution indicating their acceptance of the Project:-

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. 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.

### **2.13 Expansion of Captive Limestone Mine from 17.2 to 19.6 MTPA of M/s Shree Cement Ltd., at Village Nambeti, Jawangarh-ali, Rajasthan (750 ha) (Consultant: Enkay Enviro Services Pvt. Ltd) - TOR**

Shree cement Limited has been granted a Prospecting License over an area of 8.75 Sq Km near Village Nimbeti. Mining Lease was granted on 06.08.1996 over an area 7.5 Sq Km. The remaining area of 1.25 Sq km was left in ML because it was non- mineralized i.e. soil cover, nala, sand dunes etc. The Proposed expansion will be within existing ML area. Mining Lease was granted wide letter no. Pa.3165/ Khan/Group-1/91 dated 06.08.1996. Mining Operation at Nimbeti Mines started on 13 June 1997. Latest scheme of Mining is approved from 1st April 2012 – 13<sup>th</sup> November 2016 vide letter 584(6) (3) (400)/2011-

AJM, Controller of Mines (North) Indian Bureau of Mines. Initially Limestone from the mines was transported to Beawar Plant. In the year 2005, after commissioning of Unit III at Ras Site, this mining is feeding limestone to both Beawar and Ras Plants. There are nine Reserve Forests in the ML area. 5 RFs are within 10 km radius of the ML area. No National Park, Biosphere Reserve, Wild Life Sanctuary falls within 10 km radius the study area. Lilri River is 0.15 km from the ML area. Sukri River is 6.2 km from the ML area. The life of the mine is 27 years. Existing water consumption is 330 KLD and after proposed expansion it will be 380 KLD which will be sourced from the groundwater and rain water collected in mine pit. The total investment for the proposed expansion will be 7470 Lacs. Method of mining will be mechanized open cast with maximum bench height of 12 m and minimum bench width of 12 m. Controlled blasting and wet drilling technique will be used. The total waste generation in Quarry would be 254.658 million tones. Waste disposal is being done by end tipping method and will be continued in future also while forming terraces of 12m in height. The dump will be formed in advancing manner. Permission for 3800 KLD has already been granted by CGWA. Additional 500KLD water will be met from rain water collected in mine pit and earthen ponds.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 (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 predominant 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 PM10 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.

**2.14 Madkasur Manganese Ore Mine for production capacity of 15000 tonnes per annum of M/s Modern Minerals Village Madkasur, Tehsil Bichwa, District Chhindwara, Madhya Pradesh (10.00 ha) - TOR**

The proposed Mine Lease area over 10.00 ha is located in Forest land (Government Forest South Chhindwara Division, Part of Compartment no.: 1625) near village: Madkasur, Tahsil Bichwa, Dist. Chhindwara of M. P. State. The Mine Lease area is located between Latitude and Longitude 21°38' 7.067" 78°59' 53.53" 21°38' 2.167" 78°59' 53.078" 21°38' 3.35" 79°0' 13.875" 21°38' 8.281" 79°0'15.606". The interstate boundary Madhya Pradesh – Maharashtra lies at a distance of 2 Km and hence the project is categorized as Category 'A' project as per EIA Notification 2006. The proposed mine will be developed as opencast Manual Mine for the production of manganese @ 15,000 tonnes / annum (0.015 MTPA). The proposed area is located in forest land. Mining will be by opencast manual mine and there is no interlinked and interdependent project. Ground water from the nearest village Madkasur with permission to purchase water for drinking, dust suppression and plantation shall be sought. The waste consists of soil, Mica-Schist as overburden. There is useful topsoil reported from the area. This important resource in terms of top soil shall be reused for the plantation purpose. Mineralized rejects intermittently occurring with the manganese shall be proportionately mixed and optimally used. Rainwater collected in the pit shall also be used for dust suppression. The estimated project cost is Rs. 5.0 Crores.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 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 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.
  23. Estimation of the fines going into the washings and its management should be given.
  24. Details of the equipment, settling pond etc. should be provided.
  25. Detailed material balance should be provided.
  26. 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.
  27. Management and disposal of tailings and closure plan of the tailing pond, if any, after the project is over, should be provided.
  28. 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.
  29. Measures to manage the under size / over-size waste from the feed ore shall be provided.
  30. 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.
  31. 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.
  32. 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.
33. Impact of change of land use should be given.
  34. 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.
  35. 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.
  36. 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.
  37. 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.
  38. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  39. Details of water conservation measures proposed to be adopted in the project should be given.
  40. 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.
  41. 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.
42. 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.
  43. Details of rainwater harvesting proposed, if any, in the project should be provided.
  44. 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.
  45. 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).
  46. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  47. 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.
  48. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  49. 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.
  50. 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.
  51. Occupational health impact of project should be anticipated and preventive measures initiated. Health impacts of Manganese Poisoning to

- be considered at top priority. Preventive measures for Manganese Poisoning is followed as per the international standards. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
52. 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.
  53. 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.
  54. 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.
  55. 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.
  56. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  57. 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.

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.

### **2.15 Renewal of Bagdari Red Ochre Mine for targeted production of 2,00,000 MTPA of M/s Anil Construction Co. N/v Bagdari, Tehsil Chhoti Sadri, District Pratapgarh, Rajasthan (49.589512 ha) – TOR**

This project is for mining of mineral Red ochre near village Bagdari, Tehsil Chhoti Sadri District Pratapgarh (Rajasthan) over an area of 49.589512 ha of M/s Anil Construction Co. The Environment Clearance is required for renewal of Mining Lease for the targeted production of 2,00,000 MTPA of Red ochre. The lease was originally granted for a period of 20 years w.e.f. 19.01.1985 to 18.01.2005. Initially the lease was sanctioned in favour of M/s Anil Construction Co. for mineral Red ochre area of 263.632 ha. Vide govt. order no. P-1(65) Khan/group-2/84 dated 11/09/1984 for a period of 20 year from date of registration. The lease deed was executed on 17-11-1985 and registered on 19-01-1985 for 20 years (The lease period is 19-01-1985 to 18-1-2005). The renewal application was applied on 14-5-2004 which is pending. Later on lessee applied for partial surrender of 214.042488 ha area out of the total area of 263.632 ha. Partial surrender of 214.042488 ha area was accepted vide order no. SME/UdaiCir/CC-Pratap/ML/11/83/236 dated 15.7.2011 and presently

49.589512 ha area held and in such circumstances, this Modified mining plan with progressive mine closure plan of the lease area of 49.589512 ha is prepared. Modified Mining Scheme & Progressive Mine Closure has been submitted & approved by SME, Dept. of Mines & Geology, Udaipur vide letter no.SME/UD-CIR/MINE-PLAN/PRATAP/F-04/11/2173-79 dated 25.10.2011. The Mine Lease area is located between latitude 24°22'56" to 24°23'19" N and Longitudes 74°45'52" to 74°46'32" E. Proposed project is located within 10km from interstate boundary of Rajasthan & M.P. The water required (16KLD) at the mine for drinking and domestic purpose is being obtained from a tubewell located in the M.L. area. The water for other purpose will be obtained from sump developed in the mine. The waste material in this mine consists of soil, with red ochre scree removed as overburden from the top of the deposit and rejects amount to 10% of total production. The waste will be dumped on barren land as approved in mining scheme. Retaining wall will be made on the bottom side to prevent spreading of the waste material. It is a semi mechanized opencast mining project. There is no village within the lease area. There is no hutment in the lease area hence no R&R issues. Estimated cost of the Project is Rs. 150 Lakhs.

Based on the information furnished presentation made and discussions held, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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. 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. 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.
  13. 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.
  14. 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.
  15. Impact of change of land use should be given.
  16. 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.

17. 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. The mineralogical composition of PM<sub>10</sub> particularly for free silica should be given.
18. 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.
19. 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.
20. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
21. Details of water conservation measures proposed to be adopted in the project should be given.
22. 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.
23. 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.
24. 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.
25. Details of rainwater harvesting proposed, if any, in the project should be provided.
26. 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.
27. 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).
28. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  29. 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.
  30. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  31. 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.
  32. 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.
  33. 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.
  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.
  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.

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.

### **2.16 Renewal of Soniyana Laterite Mine with production rate of 50,000 MTPA of M/s Shri Shreelal Anjana N/v Soniyana, Tehsil Neemuch, District Neemuch, Madhya Pradesh (10.00 ha) –TOR**

The Soniyana Laterite Mine lease over an area of 10.0 ha is near village Soniyana, Tehsil & District Neemuch, was sanctioned in favour of Shri Shreelal Anjana for a period of 20 years from the date of registration w.e.f. 24.09.1998 to 23.09.2018. Modified Mining Scheme & Progressive Mine Closure Plan has been approved by IBM, Nagpur vide letter No. MND/LAT/MPLN-585/NGP dated 28.09.2007. The environment clearance is required for renewal of mining lease with the targeted production of 50,000 MT per year for Laterite Minerals. The Mine Lease area is located between the latitude 24°23'57" to 24°24'54" and Longitudes 74°49'54" to 74°49'58". Out of total area of 31410 ha 2576 ha is

forest land, 5841 is irrigated land, 10,589 ha is un-irrigated land, 4,596 ha is culturable waste land, and 7,808 ha is not available for cultivation. The water required (11 KLD) at the mine for drinking and domestic purpose is being obtained from a tube / dug well located near the M.L. area. The water for other purpose will be obtained from sump developed in mine. The Waste material in this mine consists of soil, with red ochre scree removed as overburden from the top of the deposit and rejects may amount to 10% of total production. The waste will be dumped on barren land as approved in mining scheme. Retaining wall will be made on the bottom side to prevent spreading of the waste material. The mining will be carried out by opencast semi-mechanized method by forming suitable benches of height 3 & 6 mts. and similar width. There is no hutment in the lease area, nor any displacement/R&R issues. Estimated cost of the Project will be Rs. 50 Lakhs. No court case is pending against the Project.

While appraising the Project it was observed that this is a violation case. Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:

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 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. The details of plantation already done should be given.
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.

### **2.17 Limestone mine of M/s Chariot Steel & Power located at Village Raiboga, District-Sundergarh, Odisha-EC**

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

### **2.18 Iron Ore Mine of M/s. K. Rajamohan Reddy and 0.3 MTPA**

**Beneficiation Plant (Production of 0.5 MTPA Iron Ore & Throughput of 0.3 MTPA) located at Village Pendlamarri, Mandal Kadapa, Andhra Pradesh (88.95 ha) (Consultant: Global Enviro Labs)-EC**

The Expert Appraisal Committee first considered the Project in its meeting held on September 22, 2011 and Terms of Reference were issued by MoEF, Vide Ir. No: J-11015/164/2011 – IA. II (M), Dated on 14<sup>th</sup> February 2011. Nearest River is at a distance of 1.8 km i.e. Papaghni. Gangannapalli R.F. is at a distance of 8.6km S. Mining will be semi mechanized opencast using drilling and blasting. Water requirement is 377 KLD from Bore wells (327 KLD - for Iron ore Beneficiation) for which PP has applied to CGWB for water withdrawal from ground water source. Ground water is at 50m below General ground level of 170m and the mining operations will extend to a depth of 20m from 180m R.L and will not intersect water table. Built up land is 2.1%, water bodies 8.1%, forest 3.9%, cropland 53.8% and wasteland 32.4%. Base line study was carried during December 2011 – February 2012. It was recorded that AAQ data is within permissible limit. Public Hearing was conducted on 05.07.2012 and issues raised by public were addressed by the project proponent with commitment for implementation. Total cost of the project is 39.4 Crores Rs. Out of this 2 Crore Rs are earmarked for CSR activities. Life of mine is 9 Years.

After detailed discussion on various issues, the Committee observed that further information/clarification are required on the following:

- a) Details of the tailing pond design may be furnished.
- b) The Environment Management cell set up needs to be strengthened with persons having qualifications/specialisation in environment protection.
- c) The budgetary provision for occupational health and safety/ may be enhanced.
- d) Details of plantation on wasteland may be given.
- e) Measures to prevent surface runoff and water conservation with due emphasis to raise water table may be provided.
- f) Details of land use, flora, fauna including endangered and endemic species may be furnished.
- g) Measures for proper utilization of wasteland for social purpose to be submitted.
- h) Compliance of TOR to 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 is furnished.

**2.19 Pandupani Quartz & Quartzite Mine with production of 36,340**

**MTPA Quartz of M/s. Lalit Kumar Dash located at Village Pandupani, Division Bamanghaty, District Mayurbhanj, Odisha (12.95 ha)(Consultant: Centre for Envo-Tech and Management Consultancy Pvt. Ltd) (Consultant: Centre for Envotech and Management Consultancy Pvt. Ltd)-EC**

This Mine was initially granted to Sri Raghmani Tripathy on 27.04.1983 for a period of 20 years over 13.05 hectares in village Pandupani in Tehsil - Tiring but earlier in Bahalda Tehsil in Mayurbhanj District of Odisha. The lease was transferred in favour of Sri L. K. Dash (present lessee) on 15.09.1998. The Original lease period expired on 26.04.03 and the Application for renewal was filed in due time i.e. 17.04.2002 to Collector & Dist. Magistrate Mayurbhanj. Conditional 1<sup>st</sup> RML was granted in favour of Sri L.K. Dash (vide letter No. 2027/III (C) SM.1/05/SM, Bhubaneswar dated 24/02/2007) after reduction of the Lease area from 13.05 hectares to 12.95 hectares subject to submission of a fresh approved Mining Plan. Mining plan was prepared & approved by Director of Mines, Govt. of Orissa vide letter no. 7734 dt. 26.06.2010. Kharkai River is 7 km towards south. Trolo River is 9 km towards South-West. Debradihi RF 7km towards SE. No ecologically sensitive area such as National Park, Sanctuaries, Biosphere Reserve and Migratory corridors of wild animals exist within 10km of the project site. Ground water table occurs at a depth greater than 10m bgl at Pandupani village where the measured RL is 231m. So the ground water table lies below the quarry floor level which is at 235m RL. A total 94,461 cum of waste will be generated during conceptual period of mining. As far as possible, waste materials will be compacted and stabilized by dumping the various sized materials in a mixture form. Baseline studies were carried out during December 2010 to February 2011. AAQ data was recorded within permissible limits. Total water requirement is 10<sup>3</sup>m/day. The Public Hearing in respect of the Project was held on 03.05.2012. Sri Muralidhara Mallik, Additional District Magistrate, Mayurbhanj and Sri P.C. Behera, Asst Environmental Scientist, Regional office, State Pollution Control Board, Odisha, Balasore were present. Issues raised by public were addressed by the project proponent with commitment for implementation.

While appraising the Proposal it was observed that this is a violation case. Two Villages are located close to the mine. One Village is at a distance of 0.5 km and another 2km. Grazing land is 70% in the lease area. It was suggested by the Committee to fence the grazing land and increase the productivity of this land by suitable means so that people/dairy animals dependent on this land will get benefitted. It was also suggested that green shield should be developed around the Villages. It was also observed that the insufficient budget allocated for occupational health especially Quartzite-Silicosis needs to be enhanced. No certification is obtained from the wildlife or forest division for flora and fauna. While appraising the project it was observed that this is a violation case.



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

1. Certified copy of flora and fauna of study area including endangered and endemic species from the State Government.
2. Details on budget allocation for occupational health especially Quartzite-Silicosis.
3. Measures to protect grazing land and development of plantation as one of village is only 0.5 km away.
4. Measures to be taken for improvement of groundwater quality.
5. Measures to minimize waste generation

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 Kathpal Chromite Mine of M/s FACOR located at Kathpal, Taluka-Kamakhyanagar, District Dhenkana, Odisha (113.312 ha)-EC**

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

### **2.21 Lohepar to Dubwali Sand Mine with production rate of 75,000 TPA (in-stream mining) of M/s SinghasanNishad, Village Lohepar & Dubwali, Tehsil Haata, District Kushinagar, Uttar Pradesh (58.27ha)(Consultant: Grassroots Research and Creations India (P) Ltd-TOR**

The proposed project of 58.27 ha area is of river bed sand mining and falls under Category- "A" as per EIA Notification 2006 of MoEF. The mining lease area is located in Village Lohepar & Dubwali, Tehsil Haata, District Kushinagar, Uttar Pradesh. The proposed project activity will be carried out in the bed of the Chhoti Gandak between Latitude: 26°48.974'N to 26°50.370'N and Longitude: 83°49.375'E to 83°46.535'E. It has been proposed to collect approximately 75,000 tonnes/year of sand. No mining activity will be undertaken during the monsoon season. In-stream Mining will be carried out at the centre of the river. The mining and allied activities involved in in-stream river mining are scraping of river bottom surface for sand accumulated below water. It has been considered that a maximum depth of mining through manual means will be limited to one meter, leaving a buffer zone (for bank protection) on either bank side or assuming that there may be region in the river bottom where sand deposit may not be there or it may contain deposition of silt and clay alone. Mining will be carried out only during the day time. Extraction of river bed material will be completely stopped during the monsoon season. The mining is confined to

extraction of Sand from the stream-bed. The operation will be manual in which the stream bed material will be collected through bamboo pole – bucket arrangement; bucket being mounted on the lower end of the bamboo pole. Sand will be scraped with improvised buckets with holes beneath and stacked on the platform, built out of planks on the boat. The deposits occur in the middle of the river. Normally 3 m<sup>3</sup> of sand is extracted at a time in one boat and daily two cycles of loading are done, thereby extracting about 6 m<sup>3</sup> or 10-12 tonnes per boat per day of wet sand. The water requirement for drinking and for dust suppression will be around 2.6 KLD. This water will be supplied from the nearby villages. The Total cost of project would be around Rs. 60 lakhs.

At the outset, the Committee noted that unlike the more prevalent conventional river-bed sand mining (confined to above water dry river bottom portions only), in-stream mining extracts sand from out of the flowing water stream, thereby creating turbidity downstream for indefinite distances depending on the rate and velocity of flow and gradient of the river. Prima facie, this type of mining has greater pollution potential and also impacts the flow characteristics of the stream. A policy prescription is called for as to whether in-stream mining should be permitted at all (especially for materials like sand) and if for compelling economic reasons or past practice, in the absence of alternative sources of sand in those locations, then it is imperative to predetermine the conditions to be imposed to minimize the adverse impacts of such in-stream mining. In response to Committee's pointed queries on the prevalence and impact assessment studies of in-stream mining, the Consultant of the PP quoted from International examples of such mining and how the pollution is kept under control. After further discussions on the subject, the Committee felt that it is necessary to ascertain if CPCB has any guidelines on permissibility and regulation of in-stream mining. MoEF may also indicate if any such mining proposals have been granted EC in the past and if so, what were the conditions imposed? If any such policy or knowledge is not readily available at either end, the Committee feels that an independent site study by a sub-Committee of subject experts may precede prescription of any TOR for the instant Proposal.

Based on the information furnished and presentation made, the Committee decided to take up the issue with Central Pollution Control Board and ask CPCB's recommendation on the matter pertaining to in-stream mining. Meanwhile MoEF may explore its own policies pertaining to this issue. Proponent will be informed after receiving further advice in the matter.

## **2.22 Felsite Mine of M/s Shri B.C. Muddumadappa, Village Sadnahalli, Taluk & District Mysore, Karnataka (M.L. No 2446) –TOR**

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

**2.23 Mining lease of Chandopola Limestone Mine of M/s The Industrial Development Corporation of Orissa Ltd, at Village Chandopala, Tehsil Komna, District Nuapada, Orissa (181.271 ha) –TOR**

The Chandopola mining lease was executed over 181.271 ha on 09.08.1996 for a period of 20 years. The commercial production from the mines was started during 1997-98. The discontinuation notice has been given on 23.12.2003. Fresh mining scheme has been submitted for the period 2012-13 to 2016-17. The area is situated at Chandopala village in District Nuapada, Odisha. The latitude and longitude of the area is 20°22'43" - 20°24'03" N and 82°41'19"-82°42'16" E respectively. This is a Mining Project and is supplying 100% of its production to the Cement Plant of Navdurga Industries Limited which is 30 Kms away from the Pit head by road. A total area of 16.050 hectares will be utilized for mining with a maximum production of 1.60 lakh tones annually. Water will be supplied from mine dewatering for washing, dust suppression and green belt in mine by a tanker and drinking water shall be met from ground water source. A total of 5,22,950 cum of waste to be generated in the plan period. 40% of the waste i.e. 2,09,180 cum will be used for road making etc. and balance 3,13,770 cum of waste will be dumped in the dump yard. No national park/wildlife sanctuary falls within 10 km radius of the project area. There is no forest land within 5 Km of the proposed project. The land in the project falls under agricultural and non agricultural (barren) land which is partly Government and partly private land. R&R is not applicable as the mining project will not affect any villages. The nearest village is at a distance of more than 2 km. Estimated cost of the project is about 700 lakhs.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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. 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 pre-placement 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.

## **2.24 Mining lease of Rohenpadar Limestone Mines of M/s The Industrial Development Corporation of Orissa Ltd, at Village Rohenpadar, Tehsil Khariar, District Nuapada, Orissa (109.583 ha) (Consultant: Geomin Consultants (P) Ltd -TOR**

The Rohenpadar mining lease was executed over 109.583 ha on 03.08.1988 for a period of 20 years. The lease was expired on 02.08.2008. RML Application was filed on 18.06.2007. The mine was not in operation since 23.12.2003 in response to the discontinuation notice given on the same date. Now the fresh mining Plan has been submitted for the period 2012-13 to 2016-17. The area is situated at Rohenpadar village in District Nuapada, Odisha. The latitude and longitude of the area is 20°20'37"-20°21'18"N and 82°44'18"-82°45'24" E respectively. A total area of 32.012 ha will be utilized for mining with a maximum production of 6.4 lakh tones annually. Water will be supplied from mine dewatering for washing, dust suppression and green belt in mine by a tanker and drinking water shall be met from ground water source. A total of 9,35,050 cum of waste will be generated in the plan period. 40% of the waste i.e. 3,74,020 cum will be used for road making etc. and balance 5,61,030 cum of waste will be dumped in the dump yard. The ownership of the land in question is owned by State Government and Private individuals. Non mineralized area inside Mining Lease and along haul road will be utilized for developing green belt. Land use for Mining will be 32.012 ha. The rest area will be used for road and plantation etc. 74.583 ha of land will remain as unutilised. R&R is not applicable as the mining project will not affect any villages. The nearest village is at a distance of more than 2 km. Estimated cost of the project is about 1800 lakhs.

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. 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.

**2.25 Soniyana Laterite Mine with production rate of 50,000 MTPA of M/s PurnamalAnjan, N/v Soniyana, Tehsil Neemuch, District Neemuch, Madhya Pradesh (10.00 ha) (Consultant: Apex Min Tech Consultants) –TOR**

The Soniyana Laterite Mining lease over an area of 10.0 ha near village Soniyana, Tehsil and District Neemuch, was sanctioned in favour of Shri Shreelal Anjna for a period of 20 years from the date of registration w.e.f. 24.09.1998 to 23.09.2018. The Mine Lease area is located between the latitude 24°23'57" to 24°24'54" and Longitudes 74°49'54" to 74°49'58". Modified Mining Scheme & Progressive Mine Closure Plan has been approved by IBM, Nagpur vide letter No. MND/LAT/MPLN-585/NGP dated 28.09.2007. The environment clearance is required for renewal of mining lease with the targeted production of 50,000 MT per year for Laterite Minerals. The Mine Lease is located within 10km from Inter State Boundary of Rajasthan & M.P. 11 KLD water will be required. The area under reference has been used for extraction of Laterite by opencast semi mechanized mining method by removing overburden & side burden. The Waste material in this mine consists of soil, with red ochre scree removed as overburden from the top of the deposit and rejects 10% of total production. The waste will be dumped on barren land as approved in mining scheme. Retaining wall will be made on the bottom side to prevent spreading of the waste material. There is no hutment in the study area hence no R&R issues. Estimated cost of the project is Rs. 50 Lakhs.

While appraising the Project it was observed that this is a violation case. Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 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. The details of plantation already done should be given.
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.

**2.26 River Bed Mining in Ravsan-1 ( a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation Village Ravsan, Mitiveri, District Haridwar, Uttarakhand (99.79ha) (Consultant: Greencindia Consulting Private Ltd)–TOR**

The proposed riverbed mining site is located in Ravasan-1 (a rivulet of river Ganga) near Ravasan and Mitiveri Villages of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Ravasan-1 (a rivulet of Ganga river) measuring 99.79 ha. The site is located from latitude 29° 46' 58.73" N to 29°48' 12.71" N and longitude 78° 12' 26.33" E to 78° 14' 31.34" E. The elevation of the proposed site ranges from 245m to 260m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain

replenishment potential of the river stretch, where the projects are located.

- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

**2.27 River Bed Mining in Shyampur (a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation, Village Shyampur, District Haridwar, Uttarakhand (219.44ha) (Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Shyampur (a rivulet of river Ganga) at Village Shyampur of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Ganga River measuring 219.44 ha. The site is located from latitude 29° 50' 41.36" N to 29°53' 38.99" N and longitude 78° 10' 41.36" E to 78° 10' 04.05" E. The elevation of the proposed site ranges from

255m to 270m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the

Committee, which was agreed to.

**2.28 River Bed Mining in Chidyapur (a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation at Village Chidyapur, District Haridwar, Uttarakhand (325.75ha) (Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Chidyapur (a rivulet of river Ganga) at Village Chidyapur of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Ganga River measuring 325.75 ha. The site is located from latitude 29° 26' 59.50" N to 29° 50' 00.33" N and longitude 78° 12' 24.21" E to 78° 10' 35.69" E. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The elevation of the proposed site ranges from 245m to 260m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The water required for drinking purpose and toilet needs of @ 10 workers for which toilet with septic tank is provided at stone crusher site. Water required for domestic purpose is 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.

- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

**2.29 River Bed Mining in Pili Nadi ( a tributary of river Ganga) of M/s Uttarakhand Forest Development Corporation, Village Pili Nadi, District Haridwar, Uttarakhand (131.31 ha)(Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Pili Nadi (a tributary of river Ganga) near Pili Village of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Pili Nadi measuring 131.31 ha at village Pili, Tehsil Haridwar, District Haridwar, Uttarakhand. The site is located from latitude 29° 50' 11.41" N to 29° 51' 47.95" N and longitude 78° 10' 52.69" E to 78° 14' 28.30" E. The elevation of the proposed site ranges from 260m to 306m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,



- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

### **2.30 River Bed Mining in Bhogpur (a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation at Village Bhogpur, District Haridwar, Uttarakhand (237.92ha)(Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Bhogpur (a rivulet of river Ganga) near Bhogpur and Tatwala Villages of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Bhogpur (a rivulet of Ganga river) measuring 190.57 ha near villages Bhogpur and Tatwala. The site is located from latitude 29° 47' 32.61" N to 29°50' 41.20" N and longitude 78° 10' 31.26" E

to 78° 09' 25.12" E. The elevation of the proposed site ranges from 246m to 258m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct

the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

**2.31 River Bed Mining in Bishanpur (a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation at Village Bishanpur, District Haridwar, Uttarakhand (100.59ha)(Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Bishanpur (a rivulet of river Ganga) near Bishanpur village of Haridwar District, Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Bishanpur (a rivulet of Ganga river) measuring 237.92 ha near Village Bishanpur. The site is located from latitude 29° 50' 36.17" N to 29°51' 35.58" N and longitude 78° 09' 54.28" E to 78° 09' 15.13" E. The elevation of the proposed site ranges from 257m to 262m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and

- preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
  - h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

### **2.32 River Bed Mining in Ravasan-2 (a tributary of river Ganga) of M/s Uttarakhand Forest Development Corporation at Village Ravsan, Mitiveri, District Haridwar, Uttarakhand (100.59ha)(Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Ravasan-2 (a rivulet of river Ganga) near Ravasan and Mitiveri Villages of Haridwar District; Uttarakhand. The proposed site comes under Forest Division of Haridwar. The material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The mine will be operating in surface bed of Ravasan-1 (a rivulet of Ganga river) measuring 100.59 ha near villages Ravasan and Mitiveri. The site is located from latitude 29° 48' 37.42" N to 29°49' 33.87" N and longitude 78° 14' 37.04" E to 78° 16' 31.21" E. The elevation of the proposed site ranges from 245m to 260m above from sea level. There is a National Park named Rajaji National Park located within 10 km study area of the project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of

likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- a) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- b) Capacity of sand production/annum is also not mentioned
- c) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- d) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- e) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- f) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- g) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- h) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

**2.33 River Bed Mining in Kotavali (a rivulet of river Ganga) of M/s Uttarakhand Forest Development Corporation, at Village Kotavali, Chidyapur, District Haridwar, Uttarakhand (74.66 ha)(Consultant: Greencindia Consulting Private Ltd)-TOR**

The proposed riverbed mining site is located in Kotavali (a rivulet of river Ganga) near Kotavali and Chidyapur Villages of Haridwar District; Uttarakhand. The proposed site comes under Forest Division of Haridwar. The target material is removed every year for the last ten years under the direction of Ministry of Environment and Forest vide letter no 8-16/2000-FC dated 28-10-2002. The

mine will be operating in surface bed of Kotavali measuring 74.66 ha near Villages Kotavali and Chidyapur. The site is located from latitude 29° 44' 18.86" N to 29°45' 29.06" N and longitude 78° 15' 45.92" E to 78° 17' 03.96" E. The elevation of the proposed site ranges from 245m to 260m above from sea level. The Rajaji National Park is located within 10 km from the study area of the Project. The mining will involve collection of material by simple hand tool, sorting, and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The water required is only for drinking purpose and toilet needs of 10 workers for which toilet with septic tank is provided at stone crusher site. The water is further required for sprinkling on haulage road. Water required for domestic purpose will be 240 Liters/Day.

It was observed by the Committee that the Project Proponent has not paid proper attention to the filling up of the Form-I, nor has the Pre-feasibility Report followed the prescribed format. The primary scoping exercise and anticipation of likely impacts of riverbed mining and material transport through forest areas have been indifferent to ground realities of the eco-sensitivity surrounding the project sites. In particular,

- i) There is no reference to any Sedimentation Studies to justify the proposed extraction of sand from the river bed, nor any intentions to undertake any such collective exercise to ascertain replenishment potential of the river stretch, where the projects are located.
- j) Capacity of sand production/annum is also not mentioned
- k) Being in Seismic Zone-V, need for precautionary measures to protect people in the study area should have been acknowledged.
- l) Presence of breeding grounds of birds and other animals should be admitted as also the need to prepare conservation Plans for the same
- m) Basic provisions for drinking water and sanitation facilities in the study area for labour should also form part of the 'scoping'.
- n) Possibilities of entry of invasive alien species should not be denied and preparedness for protection against them should form part of the EIA/EMP.
- o) Awareness about the flow characteristics, flooding potential or associate Risks from Flash Floods etc. should have been indicated instead of the typical 'No' 'Not Applicable' entries against concerned items in Form I.
- p) Even the basic necessity to get forest and NBWL clearance in view of 'Rajaji National Park' being about 9km from the study area finds the indifferent entry of 'Not Applicable' in relevant column of Form-I.

On the face of such an erroneous and negligent approach to environment issues, the Committee felt that the present Proposal, as reflected in the filled in Form I and Feasibility Report do not deserve to get any TOR, unless they thoroughly understand what they have contended and rectify/ recast the documents to

factually respond to the queries in Form I, and also to reflect the required salient features in the 'Pre-feasibility Report'. The Project Proponent wished to correct the deficiencies and resubmit their Applications for consideration of the Committee, which was agreed to.

**2.34 Collection of Sand stone and bajri Mining lease of M/s Diamond Enterprises, located at Mauza-Lodhwan, Tehsil-Narpur, District Kangra, Himachal Pradesh (8.5555 ha)(Consultant: Shivalik Solid Waste Management Ltd)-EC**

The Proposal was first considered by the EAC in its meeting held during 23-25 March, 2011. The proposal is for renewal of mine lease which fell due in August, 2010 and enhancement of production of sand, stone and bajri put together to 1,00,000 TPA (Terrace Mining). It is a violation case as the mine has been in operation without obtaining requisite prior environment clearance after the renewal fell due in 2010. Mine lease area is 8.5555 ha. It has been considered as Category 'A' because of inter-state boundary with Punjab within 10 km of the mine lease. No forestland is involved. It being a terrace mining, will be outside the river at a distance of about 100 m. Mine working will be opencast manual. Ultimate working depth of mine will be 6 m from surface level. Mineral transportation will be by road. Baseline studies were conducted during March-May, 2011. It was recorded that the AAQ data is beyond permissible limits. Public Hearing was conducted on 09.07.2012 and issues raised by public were addressed by the project proponent with commitment for implementation.

While appraising the Proposal, it was observed that this is a violation case. Committee observed that Project Proponent had not done primary survey of flora and fauna. No plan is prepared for conservation of Scheduled –I species, especially peacock, chill, python and panther The Project is in Seismic Zone-V but Proponent has not furnished detailed 'Disaster Management' measures to protect people from possible impacts of seismicity.

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

- (i) Details on the land use of the study area
- (ii) Primary survey of flora and fauna
- (iii) Conservation plan for Scheduled-I species
- (iv) Plan to protect people from seismicity.
- (v) Detailed studies on the tribal people and their dependency on the natural resources of the study area.

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.

### **2.35 Bauxite Mine of M/s Orient Abrasives Ltd at Village Ran, Taluk-Kalyanpur, District Jamnagar, Gujarat (63.4164 ha) (Consultant: Kadam Environment Consultants)-EC**

TOR for this project were prescribed on 26.10.2010. The Proposal was considered for EC by the EAC in its meeting held during 20-22 June, 2012.

The proposal is for opening of a new mine for production of 27,000 TPA of bauxite. Mine lease area is 63.4164 ha. No forestland is involved. Public hearing has been held on 3.2.2012. Mine working will be opencast manual involving drilling and blasting. Water requirement is estimated as 28 kld, which will be obtained by tankers. It was observed that the complete documents as were required to be submitted by the proponent namely; (i) Filled in Questionnaire for Environmental Appraisal of Mining Projects and (ii) Approved Mine Plan has neither been submitted to the Ministry nor circulated to the Members of EAC. Further, prima-facie it was observed that the baseline AAQ data is not distinctly for one season, rather there has been mixing of season for the air quality data so collected. Further, there is no monitoring station in the eastern direction, the pre-dominant downwind direction. The AAQ data is not representative of the entire study area. Although, marine national park is reported at 9 km from the mine lease, however, there was no monitoring station in the marine national park. Authentication by Chief Wildlife Warden regarding the distance of marine national park w.r.t. the mine lease was also not furnished by the proponent.

In the absence of the requisite basic information / documents, consideration of the proposal was deferred. It was decided in the aforesaid meeting of June 2012, that the proposal will be considered in detail after the requisite information has been submitted.

With reference to the above mentioned queries, PP has submitted point wise clarification to MoEF on 5<sup>th</sup> September, 2012. Based on the presentation made and discussion held, the Committee sought additional information as follows;

- (i) Copy of analysis report of limestone
- (ii) Certification that there is no endangered and endemic species in the study area
- (iii) Details on the measures to protect the grazing land
- (iv) Details on school diversion/protection (dust and acoustic shielding) proposal
- (v) Budgetary provision for occupational health
- (vi) Commitment of company with budgetary provisions for action on issues raised during Public Hearing.



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.

**2.36 Augmentation of Limestone production from 3,80,000 TPA to 7,80,000 TPA of M/s Rashtriya Ispat Nigam Ltd, located at Tehsil Jaggayapeta, District Krishna, Andhra Pradesh (1295 ha)(Consultant: M.N. Dastur and Company Pvt. Ltd)-EC**

The Proposal was first considered by the EAC in its meeting held during 25-26 February, 2010. TOR were issued by MoEF vide letter No. J-11015/28/2010 IA-II(M) dated 9<sup>th</sup> March 2010. The limestone Mine at Jaggayapeta (JLM) is a captive mine of Rashtriya Ispat Nigam Limited (RINL) for their Visakhapatnam Steel Plant (VSP). The mine with acquired ML area of 1295 ha (3199 acres) is in operation since 1989. RINL has obtained the 1st renewal of ML area for 20 years with effect from 8th September 2000 from the Directorate of Mines & Geology, Govt. of AP. Mining Scheme was approved by Regl. Controller of Mines & Incharge (South Zone), Bangalore of Indian Bureau of Mines in October 2010. The final EIA/EMP Report has been prepared in accordance with the aforesaid TOR and based on the Proceedings of Public Hearing (PH) conducted by APPCB on 04.04. 2012. Issues raised by the Public during Public hearing were addressed by the Project Proponent with commitment for implementation. AAQ data was collected from April to June 2010. The AAQ data is seen to be within permissible limits. VSP is presently undergoing expansion programme of liquid steel production to 6.3 MTPA from 3.4 MTPA. In view of VSP expansion, RINL proposes to increase the limestone production at Jaggayapeta to 0.78 MTPA from the present production level of 0.38 MTPA. Present consumption of water is 330 KLD which will be increased by 200 KLD. The proposed augmentation would be confined within the existing ML area. Estimated cost of the Project is Rs. 32.87 Crores.

During their Appraisal, it was observed by the Committee that

- a) There are number of mines surrounding this mine lease area and cumulative impact of the study area needs to be studied and reported.
- b) Complete list of flora and fauna is required to be provided by PP
- c) Air quality data at the crushing plant show very high air pollution the reasons for which need to be ascertained and appropriate control measures need to be put in place. Proposed special Action Plans in this regard may be spelt out.
- d) The Questionnaire needs to be revised appropriately and resubmitted.
- e) A complete list of flora and fauna including endangered and endemic species needs to be submitted

The Committee 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.

**2.37 Bhimgoda Limestone Mine of M/s Smt Satya Tomar located at Village Kamraoo, District Sirmour, Himachal Pradesh (8.50 ha)(Consultant: Udaipur Min Tech Pvt. Ltd)-EC**

The Proposal was first considered by the EAC in its meeting held during 18-20 August, 2008. TOR were issued by MoEF vide letter No. J-11015/77/2008-IA.II(M) dated 23<sup>rd</sup> September, 2008. The Proposal is for enhancement of production of limestone to 60.000 TPA. The mine lease area is 8.5ha; however, because of its location, within 10 km of interstate boundary, the Proposal has been considered as category "A". No forestland is involved. This is a Government Land. The life of mine is 115 years. The waste will be dumped outside the mine lease on private land in an area of 1.5 ha, which is reported to be owned by Proponent. Working will be opencast semi-mechanised involving drilling and blasting. Baseline studies were conducted from December 2009-February 2010. AAQ parameters were reported within permissible limits. Public Hearing was conducted on 8.12.2011 under the Chairmanship of Additional District Magistrate, Sirmour. Issues raised by the public were addressed by the Project Proponent with commitment for implementation. Final EIA/EMP report was submitted to MoEF on 09.10.2012.

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 for dealing with cases of violation.

**2.38 Chippilangsu Silimanite Mines with production rate of 1,50,000 TPA (ROM) of M/s Spectrum Meghalaya Cement Co. Pvt. Ltd at Village Chippilangsu & Hapjan, District Karbi Anglong, Assam (100.00 ha) (Consultant: Udaipur Mintech Pvt. Ltd)-TOR**

The company applied for a mining lease of mineral Sillimanite over an area of 100 hectares near village Hapjan Chippilangsu (Sippi Juri), District Karbi Anglong, Assam, for a period of thirty years. Govt. of Assam granted the lease over the applied area vide letter no. PEM. 6/2010/70 dt. 02.03.2012. In the grant order the Government demanded an approved Mining Plan under rule 22 of MCR 1960 to be submitted within six months of issue of the letter. The applicant was also requested to submit E. C. under Environment Protection Act 1986. The applied area lies within Latitude 26°11'34"- 26°12'01" N & Longitude 93°13'31"- 93°14'03" E. The water requirement for the proposed project will be met from

the Dug wells / Tube wells situated outside the applied area. The daily water requirement is about 10 KLD. Rainwater harvesting is proposed in the project to conserve water. The applied area is undulating and hilly. Agriculture is the main stay of the tribal population of the districts. The traditional method of cultivation is the slash & burn one, commonly known as Jhuming. The applied area is a Government barren land. There is no reserves forest or protected forest land within the applied area. There is no village or hutments within the applied area. The applicant has obtained the NOC from the District Council. Neither, National Park, Archaeological monument, etc. or other private land is within the applied area or in nearby area. Solid waste will be disposed at proposed site. Domestic Effluent will be treated in soak pits and overflow used for gardening. R&R is not applicable to this project. Estimated Project Cost for the proposed project is 45 lakhs.

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 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.

**2.39 Limestone Mine of M/s Jai Bhole Cement Combine Pvt. Ltd at Village Velabai and Keshawanagar, Taluka Wani, District Yavatmal, Maharashtra (1007.25 ha) (3MTPA)-TOR**

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

**2.40 Mining of Minor Minerals (Stone, Sand & Bajri) River Bed Mining of M/s Sanjay Butail at Village Garli, P.O. Puragpur, Tehsil Dehra, District Kangra, Himachal Pradesh (13.3786 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.

**2.41 Quartz Mine of M/s Shri P. Abdul Rawoof Khan, Hatti Belgal, Village, Alur Mandal, Kurnol District, Andhra Pradesh (69.474 ha)(Consultant: Global Enviro Labs)-Reconsideration of EC**

The proposal was for opening of a new mine for production of 50,000 TPA of quartz. Mine lease area is 69.474 ha. No forestland is involved. No National Park / Sanctuary is reported within 10 km of the mine lease. Mine working will be opencast manual. Ultimate working depth will be 60 m bgl. Life of the mine is 300 years. TOR for this project were prescribed on 26.9.2008.

The Proposal was first considered by the EAC for EC in its meeting held during July 26-28, 2010 wherein the Committee had sought additional information/clarifications on various related issues. In particular, it was observed that the data contained in the EIA report was confined to only five years. The mine plan as submitted also lacked projections for the conceptual period. The Committee had therefore, desired that the EIA report should be revised to provide data for entire lease period and the mine plan should also provide necessary information on conceptual period and progressive mine closure. It was also desired that the Form-I should be filled up properly and submitted.

The Proposal was further considered by the EAC in its meeting held during 20-22 October, 2010 based on the additional information/clarification submitted by Proponent. It was observed that the deficiencies in the project document pointed out earlier, have not been addressed satisfactorily. The Proponent were asked to submit revised documents for further considerations.

The Proposal with revised and additional material was considered by the EAC in its meeting held during 19-21 March, 2012. It is reported that 6,50,000 tonnes of waste will be generated at the conceptual stage. The baseline AAQ data showed the levels within permissible limits. Public Hearing was held on 21.7.2009. The issues raised during public hearing were also considered and discussed during the meeting. It was felt necessary to have a time bound Action Plan with due budgetary provisions. Greater attention was also called for about the Public Road in the vicinity. It was observed that the Questionnaire has not been filled up properly. The EIA report was not linked to the baseline data collected; rather the EIA/EMP report appeared too generic like in a text book.

During their appraisal in the aforesaid March 19-21, 2012 Meeting, the Committee had sought information on the following:-

- (i) The Questionnaire for environmental appraisal of projects should be filled in properly providing relevant information against the respective Questions. The data in the Questionnaire and EIA report should be mutually consistent. Specific mention in this regard may be made to Question no. 6 (ix), 9, 21, 34, 39 etc.
- (ii) The maps submitted should be duly signed and cross referenced with the text.
- (iii) Compliance of the court order should be shown. In this regard, the



- 10 ha area which is not part of the lease, should be shown on a map.
- (iv) Mineralogical composition of dust showing the percentage of free silica may be given.
  - (v) Details of primary survey of flora and fauna should be given.
  - (vi) Details of occupational health impacts and the proposed safeguard measures and the plan for their monitoring and mitigation should be given.
  - (vii) Compliance of TORs should be given along with an undertaking that all the TORs have been complied with.
  - (viii) Action plan to address the issues raised during public hearing should be given especially relating to the road in public property.
  - (ix) Data furnished should cover the conceptual period, clearly demarcating the current lease period and the planned life of the mine to which progressive Closure Report relates in the approved Mine Plan.
  - (x) EIA should utilize the baseline data collected and the EMP should address the same.

In this meeting, it was agreed that the Proponent will submit the response / information on the above-mentioned points by 5<sup>th</sup> April, 2012 and simultaneously circulate the same to the Members of the EAC so that the proposal can be considered by the EAC during its meeting to be held in April, 2012. However, vide letter dated 27.03.2012, the Proponent wanted to have more time to submit the information sought. Vide letter dated 20.07.2012, the Proponent has submitted point wise clarification sought by the Committee, which was perused and found to broadly cover the points raised.

Based on the information furnished, discussions held and clarifications given by the Proponent, the Committee recommended the Project for environmental clearance.

#### **2.42 Limestone Mine of M/s ADA Enterprises & Ventures Pvt. Ltd at Village Deori, Salaiya, Baroh and Kubri, Tehsil and District Satna, Madhya Pradesh (459.566 ha) )(Consultant: GIS ENABLED ENVIRONMEN AND NEOGRAPHIC CENTER)--Reconsideration of EC**

The Proposal was first considered by the EAC in its meeting held during 20-22 October, 2010. The Proposal was for opening of a new mine for production of 2.0 MTPA of limestone. The mine lease area is 459.566 ha. No forestland is involved. Mine working will be opencast involving drilling and blasting. No National Park/ Sanctuary is reported within 10 km radius of the mine lease. Life of mine is 25 years. Water requirement is 100 kld. Ultimate working

depth will be 12m and ground water table is at 15-20m. Ground water table will not be intersected. Water requirement is 100m<sup>3</sup>/day which will be sourced from ground water. It was estimated that 0.216925 Million m<sup>3</sup> of waste will be generated. Backfilling is proposed. Mine lease area is 459.566 ha which includes 384.489 ha of Pvt land and 75.077 Govt land. TOR were issued by MoEF vide letter No. J-11015/276/2010-IA.II(M) dated 29<sup>th</sup> November, 2010. Public hearing was held on 9.9.2011. The issues raised during public hearing included wildlife conservation, adoption of villages, employment to one person from each PAP, blasting impact on villages, maintenance of drainage of the mine area etc. It was reported that there is no court case pending against the project.

The Proposal was appraised by the EAC in its meeting held during 22-23, July 2012 for EC. Based on the presentation made and discussions held, the Committee had sought information on the following:-

- (i) Permission from competent authority in the State Govt for using grazing land (48.617 ha) shall be submitted.
- (ii) A copy of ground water withdrawal from the competent authority shall be given.
- (iii) Copy of approved mine plan from the competent authority shall be provided.
- (iv) An undertaking that all TORs have been included in the EIA report for the project shall be furnished.
- (v) Baseline AAQ data shall be rechecked and submitted as per TOR No.3 (10).
- (vi) A confirmation from PCCF (Forest), M.P. that no forest land is involved, if involved, then a copy of Stage-I forestry clearance for forest land involved shall be submitted.
- (vii) Biological study of core zone of the project shall be done and details provided.
- (viii) Details of R&R plan with financial details for all PAPs shall be submitted.
- (ix) Response on the issues rose during public hearing with financial details and time schedule shall be submitted.
- (x) Details of ground water quality shall be given.
- (xi) Details of evaporation of water shall be given.
- (xii) A fresh watershed map shall be submitted.
- (xiii) Details of runoff data be given correctly.
- (xiv) Transport mode of material from Salaiya mine to Sodhana mine shall be provided.

- (xv) The difference in land use details as given in mine plan and EIA report may be clarified.
- (xvi) Cumulative impact assessment of both mines shall be given.
- (xvii) Details of Cement plant ownership with supporting documents be provided.

The proposal was to be brought back before the Committee for its further consideration after the requisite information as mentioned above, was received. Vide letter dated 27.11.2012 Project Proponent has submitted point wise reply/clarifications to MoEF. This was deliberated by the Committee. It was decided that the PP should bring a letter of confirmation from the Head Quarters of Forest Department.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to submission of above mentioned confirmation letter to MoEF.

**2.43 Limestone Mining Project of M/s Reliance Cementation Pvt. Ltd at Village Badhi-Ghorwai, Tehsil Maihar, District Satna, Madhya Pradesh (129.802 ha)(Consultant: GIS ENABLED ENVIRONMEN AND NEOGRAPHIC CENTER)-Reconsideration of EC**

The Proposal was first considered by the EAC in its meeting held during 24-26 November, 2010. TOR were issued by MoEF vide letter No. J-11015/304/2010-IA.II(M) dated 21<sup>st</sup> December, 2010. The Proposal is for opening of a new mine for production of 1.0 million TPA of limestone. The mine lease area is 129.802 ha. No forestland is involved. Mine working will be opencast involving drilling and blasting. No National Park/ Sanctuary is reported within 10 km radius of the mine lease. Life of mine is 15 years. Water requirement is 100 kld, which will be obtained from groundwater. Backfilling is proposed. Ultimate working depth will be 12m and ground water table is at 15-20m depth. Ground water table will not be intersected. It is estimated that 0.2135 Million m<sup>3</sup> of waste will be generated. Baseline studies were conducted during October-December 2008. The AAQ parameters were reported within permissible limits. Public hearing was held on 7.9.2011. The issues raised during public hearing inter-alia, included wildlife conservation, adoption of villages, employment to one person from each PAP, blasting impact on villages, maintenance of drainage of the mine area etc. It was reported that there is no court case pending against the project.

The Proposal was considered by the EAC for EC during its meeting held on 25-27 July, 2012. During their appraisal, the Committee had sought information on the following:-

- (i) Permission from competent authority in the State Govt for using grazing land (48.617 ha) shall be submitted.
- (ii) A copy of ground water withdrawal from the competent authority shall be given.
- (iii) Copy of approved mine plan from the competent authority shall be provided.
- (iv) An undertaking that all TORs have been included in the EIA report for the project shall be furnished.
- (v) Baseline AAQ data shall be rechecked and submitted as per TOR No.3 (10).
- (vi) A confirmation from PCCF (Forest), M.P. that no forest land is involved, if involved, then a copy of Stage-I forestry clearance for forest land involved shall be submitted.
- (vii) Biological study of core zone of the project shall be done and details provided.
- (viii) Details of R&R plan with financial details for all PAPs shall be submitted.
- (ix) Response on the issues raised during public hearing with financial details and time schedule shall be submitted.
- (x) Details of ground water quality shall be given.
- (xi) Details of evaporation of water shall be given.
- (xii) A fresh watershed map shall be submitted.
- (xiii) Details of runoff data be given correctly.
- (xiv) Transport mode of material from Salaiya mine to Sodhana mine shall be provided.
- (xv) The difference in land use details as given in mine plan and EIA report may be clarified.
- (xvi) Cumulative impact assessment of both mines shall be given.
- (xvii) Details of Cement plant ownership with supporting documents be provided.

The proposal was to be brought back before the Committee for its further consideration after the requisite information as mentioned above, was received. Vide letter dated 27<sup>th</sup> November, 2012, Project Proponent has submitted point wise clarification on the above issues to MoEF. This was deliberated by the Committee. It was decided that the PP should bring a letter of confirmation from the Head Quarters of Forest Department.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to submission of above mentioned confirmation letter to MoEF.

**2.44 Jhakol Sehnwa Soapstone Mine of M/s Deepak Sharma at Village Jhakol, Tehsil & District Durgapur, Rajasthan (193.531 ha) (M.L. No. 12/99) (Consultant: Udaipur Min-tech Pvt. Ltd)-Reconsideration of EC**

The Proposal was considered by the EAC during its meeting held on 16-18 April, 2012, for renewal of mine lease, which fell due in July, 2000 and for enhancement of production of soapstone from 1890 to 17755 TPA. It is a violation case as the mine has operated after it fell due for renewal. Mine is reported to be closed since 31.3.2004. TOR for this project were prescribed on 11.9.2009. Public hearing was held on 3.11.2011. Mine lease area is 193.531 ha. No forestland is involved. No National Park / Sanctuary is reported within 10 km of the mine lease. Mine working will be opencast semi-mechanised. Gangri river and Som river are at a distance of about 1.0 km from mine lease. Life of mine is 20 years. Ultimate working depth will be 32 m bgl (233 mRL).

During its appraisal for EC in April 2012, it was seen that the monitoring locations for the baseline AAQ data have not been properly selected keeping in view the pre-dominant downwind directions and the sensitive receptors including habitation. The monitoring stations did not cover the whole study area. The issues raised during public hearing were also considered and discussed during the meeting which inter-alia included job opportunities, peripheral development such as road development, impact due to blasting etc. 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 the following:-

- (i) Baseline AAQ data should be collected afresh for a period of one month other than monsoon season by proper selection of monitoring stations based on pre-dominant downwind direction, location of sensitive receptors covering the whole study area.
- (ii) Baseline data on water quality should also be furnished.
- (iii) Letter from the Competent Authority in the State Govt. should be furnished 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.

- (iv) Action Plan with time frame and budget provisions to fulfil the commitments made to address the issues raised during Public Hearing.

The proposal was to be brought back before the Committee for its further consideration after the requisite information as mentioned above, has been submitted. Vide letter dated 14.09.2012 Project Proponent has submitted point wise clarification on the issues raised by the Committee. However it was observed that baseline AAQ data was collected from 15 May-16 June 2012 resulting into overlapping of two seasons (summer and monsoon) and hence the data cannot be considered. It was desired by the Committee to collect one month data for February or March 2013 and submit.

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.

**2.45 Renewal of Captive Rawan Jhipan Limestone Mine with existing production capacity of 7.5 MTPA of M/s UltraTech Cement Ltd (Rawan Cement Works) at Village Rawan, Tehsil Simga, District Raipur, Chattisgarh (722.834 ha) (Consultant: J.M. EnviroNet Pvt. Ltd)-TOR**

The Proposal is for renewal of Captive limestone mine. Environmental Clearance was obtained for the existing capacity vides MOEF Letter no. J-1105/17/2009-IA.II (M) dated 29.06.2011. The total lease area is 722.834 ha covering 563.317 ha of private agricultural land and 159.517 ha of government barren land. About 350 kld Water is used for mining operations including drinking, dust suppression along haul road /faces and crusher hoppers, cleaning and washing and plantation. Water will be drawn from mine sump. Only 6 kld drinking water is sourced from ground water. Total Limestone production is 7.5 MTPA. Mining is done by fully mechanized open cast method by formation of vertical benches. Environmental Clearance for expansion of Cement Plant has been obtained vide MOEF letter dated 17.03.11. Total 77.77 million tons OB/Mineral Rejects will be generated up to the life of the mine. OB/rejects will be partly used for backfilling purpose & rest will be dumped in 40.32 ha land within the lease area. Dumps will be stabilized followed by plantation after maturation of dumps. No National Park/ Sanctuary is reported within 10 km radius of the Project area.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 (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.
  28. The mineralogical composition of PM10 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 pre-placement 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.

#### **2.46 Mining of stone & Bajri of M/s Krishna Stone Crushing Co at Village & PO Paragpur, Tehsil Dehra, District Kangara, Himachal Pradesh (18.6875 ha)-Reconsideration of TOR**

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

#### **2.47 Varada-II, Bauxite Mine of M/s Orient Abrasives Ltd at Village Mewasa, Taluka Kalyanpur, District Jamnagar, Gujarat (25.8798 ha) (Consultant: Kadam Environmental Consultants)-Reconsideration of TOR**

The Proposal was considered by the EAC in its meeting held during 28-30 June, 2010. It was observed by the Committee that the mine is at a distance of about 3.7 km from Marine National Park, the consideration of the Proposal was deferred in view of the resolution of the State Government no. VPS-102008-399-C (1) dated 2.4.2008, which requires NOC to be obtained from Forest Department to carry out mining within 5 km of the National Park/Sanctuary. Project Proponent submitted a Resolution of the State Government of Gujarat

which states that as per MoEF letter dated 15.3.2011, any Project located in Eco-sensitive Zone or within 10 km of Sanctuary/National Park in case Eco-sensitive Zone is not declared; prior consent will have to be obtained from Standing Committee of NBWL. Consequently, The aforesaid Resolution passed by the State Govt. (Department of E&F) dated 2.4.2008, on the issue of NOC has been cancelled. Mine Lease area is 25.8798 ha, mining capacity is 9514.9 TPA bauxite ROM. Method of mining will be manual opencast. 9.1 KLD water will be required. Total lease area is Government wasteland. No litigation is pending against Project. This is a violation case.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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.

**2.48 Yecharam Mining Zone of M/s The A.P. Mineral Development Corporation Ltd, at Village Yecharam, Yecharam Mandal, District Ranga Reddy, Andhra Pradesh (266 ha) (Consultant: Environmental Protection Training & Research Institute (EPTRI)- Re-validation of TOR**

The Proposal was considered by the EAC in its meeting held during 24-26

November, 2010. TOR were issued by MoEF vide letter No. J-11015/305/2010-IA.II(M) dated 21<sup>st</sup> December, 2010. The validity period of TOR prescribed for this Project is getting expired on 20.12.2012. Vide letter dated 08.11.2012, Project Proponent has requested MoEF to extend the validity of the TOR. It was mentioned that the Proposal for conducting Public Hearing was submitted to AP Pollution Control Board on 02.07.2012. The matter is closely pursued with AP Pollution Board for conduct of Public Hearing. Keeping the progress of project in view, Proponent requested extension of TOR.

Based on the information furnished, presentation made and discussions held, the Committee decided to recommend extension of the validity of TOR for additional one year from the due date of expiry of its two year validity; i.e from 21<sup>st</sup> Dec.2012 to 20<sup>th</sup> Dec 2013

**2.49 Pillipalli Mining Zone of M/s The A.P. Mineral Development Corporation Ltd, at Village Pillipalli, Yecharam Mandal, District Ranga Reddy, Andhra Pradesh (97.13 ha) (Consultant: Environmental Protection Training & Research Institute)- Revalidation of TOR**

The Proposal was considered by the EAC in its meeting held during 24-26 November, 2010. TOR were issued by MoEF vide letter No. J-11015/305/2010-IA.II(M) dated 21<sup>st</sup> December, 2010. The validity period of TOR prescribed for this Project is getting expired on 20.12.2012. Vide letter dated 08.11.2012 Project Proponent has requested MoEF to extend the validity of TOR. It was mentioned that the Proposal for conducting Public Hearing was submitted to AP Pollution Control Board on 02.07.2012. The matter is closely pursued with AP Pollution Board for conduct of Public Hearing. Keeping the progress of project in view, the Project Proponent has requested extension of TOR.

Based on the information furnished, presentation made and discussions held, the Committee decided to recommend extension of the validity of TOR for additional one year from the due date of expiry of its two year validity; i.e from 21<sup>st</sup> Dec.2012 to 20<sup>th</sup> Dec 2013

**2.50 Expansion of Uranium Project of M/s Uranium Corporation of India Ltd, Tummalapalle, Andhra Pradesh (Re-validation of TOR)**

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-11015/199/2010-IA.II(M) dated 30<sup>th</sup> July 2010. Corrigendum to this letter was issued on 11<sup>th</sup> March, 2011. Vide letter dated 09.08.2012, Project Proponent has requested for extension of the validity of the TOR, interalia on account of the problems being faced to get the Public Hearing conducted till date owing to the local situation.

Based on the information furnished, presentation made and discussions held, the Committee decided to recommend extension of the validity of TOR for additional one year from the due date of expiry of its two year validity (i.e. from 11<sup>th</sup> March 2013 to 10<sup>th</sup> March 2014).

The Meeting concluded with a vote of thanks to the Chair. It was decided that the next meeting would be held on 20-22 February, 2013.

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


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1.	Sri M.S. Nagar	-	Chairman
2.	Dr. S. Subramaniyan	18 <sup>th</sup> & 19 <sup>th</sup> Jan	Vice-Chairman
3.	Dr. L Ajay Kumar	-	Member
4.	Dr. S.K. Peshin	-	Member
5.	Dr. Ranjan Sahai	17 <sup>th</sup> Jan	Member
6.	Dr. D. Mohamed Kizhar Irshath	-	Member
7.	Prof. G.S. Roonwall	-	Member
8.	Prof. A.K. Bhatnagar	-	Member
9.	Sri P.K. Verdia	-	Member
10.	Director (Non-coal Mining), MoEF -		Member Secretary
11.	Shri Neeraj Khatri, Dy. Director, MoEF	16 <sup>th</sup> Jan	
12.	Representative of M/s S. Sohan Singh Joginder Singh & Co.		
13.	Representative of M/s Devraj Stone Crusher		
14.	Representative of M/s Tata Chemicals Ltd.		
15.	Representative of M/s Krishan Pratap Singh		
16.	Representative of M/s Wonder Cements Ltd		
17.	Representative of M/s The A.P. Mineral Development Corp. Ltd.		
18.	Representative of M/s Shree Cement Ltd.		
19.	Representative of M/s Modern Minerals		
20.	Representative of M/s Anil Construction Company		
21.	Representative of M/s Shri ShreelalAnjana		
22.	Representative of M/s K. Rajamohan Reddy		
23.	Representative of M/s Lalit Kumar Dash		
24.	Representative of M/s. PuranmalAnjana		
25.	Representative of M/s SinghanasadNishad		
26.	Representative of M/s Uttarakhand Forest Development Corporation		
27.	Representative of M/s The Industrial Development Corp. of Orissa Ltd.		
28.	Representative of M/s Diamond Enterprises		
29.	Representative of M/s Orient Abrasives Ltd		
30.	Representative of M/S Rashtriya Ispat Nigam Ltd		
31.	Representative of M/S Smt Satya Tomar		
32.	Representative of M/S Spectrum Meghalaya Cement Co. Pvt. Ltd.		
33.	Representative of M/S Sanjay Butail		
34.	Representative of M/S Sri P. Abdul Rawoof Khan		
35.	Representative of M/S ADA Enterprises & Ventures Pvt. Ltd.		
36.	Representative of M/S Reliance Cementation Pvt. Ltd.		
37.	Representative of M/S Deepak Sharma		
38.	Representative of M/S UltraTech Cement Ltd.		
39.	Representative of M/S Uranium Corporation of India Ltd.		

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