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**State Level Environment Impact Assessment Authority,  
Jharkhand.**

C - 170, Road No. 4, Ashok Nagar, Ranchi, Jharkhand. 834 002.

Tel #: 0651-2243488; Fax #: 0651-2243487.

E-mail: [info@jseiaa.com](mailto:info@jseiaa.com); website: [www.jseiaa.org](http://www.jseiaa.org)

Letter No. **107.**

Ranchi, Date: **14/08/2013**

To:

**M/s Madan Mohan Prasad Singh,  
P.O.-Palmerganj, Dist-Lohardaga,  
Jharkhand-835302.**

**Sub.: Chirodih Bauxite Mine of M/s Sri Madan Mohan Prasad Singh, Khata No.-131, Plot No.-1275, 1420, 1426, 1430, 1434, 1436, 1437, 1442, 1447, 1475, 1482, 1488, 1455, Khata No.- 132, Plot No.-1476, Khata No.- 116, Plot No.-1425, Khata No.- 64, Plot No.-1427, 1441, 1485, 1438, 1491, Khata No.- 115, Plot No.-1428, Khata No.- 33, Plot No.-1429, Khata No.- 22, Plot No.-1431, Khata No.- 128, Plot No.-1432, 1433, 1439, 1451, 1471, 1472, 1473, 1474, 1478, 1470, Khata No.-106, Plot No. 1435, 1440, 1489, 1490, 1492, 1493, 1494, 1495, Khata No.- 48, Plot No.-1448, 1452, 1499, Khata No.- 47, Plot No.-1450, Khata No.- 93, Plot No.-1449, 1483, 1484, 1477, Khata No.- 24, Plot No.-1487, Khata No.- 58, Plot No.-1496, Vill.-Chirodih, Taluka-Bishunpur, Dist-Gumla, Jharkhand. (31.417 Ha) -Prescribing of TOR- Regarding. (File No. EC/ SEIAA / 2013-14/5/2013)**

**Ref:** 1. Your application & Letter dated: 24-05-2013.

Reference is invited to your letter along with the application in the prescribed format (Form-I) and a copy of the pre-feasibility report to prescribe the TORs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project:-

2. This is a Bauxite Mining Project having a lease area of 31.417 Ha which includes 9.5Ha of Forest Land. In Form I PP has stated that he has applied for Diversion of Forest. The lease was sanctioned on 24th March 1984 for a period of 20 years for an area of 31.4158 Ha They have applied for extension of Mining Lease for a further period of 20 years on 17th March 2003. As per renewal application they had proposed to mine 20,000 tonnes of Bauxite in the First year (2002-03) and raise the production to 25,000 tonnes from 2nd year (2003-04). The Committee also noted that the PP had applied to MOEF on 19.5.2009 based on production figure of 13,000 tonnes per annum and TORs were issued. However the PP had on 20.7.2012 again applied to MOEF for issue of TOR. In the Executive Summary submitted along with the new application they have shown a production figure of 66,067 tonnes per year. As per Executive Summary the total Geological reserves are 2.033 Mt and mineable reserves are 1.32 Mt. The life of mine has been indicated as 17 years based on 297 working days per year. This project falls under 'B1' Category MOEF, GoI, New Delhi forwarded the application to SEIAA, Jharkhand for its consideration for issuance of TORs. The mine is located between 84°17'27" to 84°17'46" E and 23°18'1" to 23°18'35"N.

The Proposal is for renewal of lease and was considered by the State Expert Appraisal ,Committee (SEAC) in its meeting held on 17,18 June 2013, to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report. The committee observed that this is a case of violation. The committee (SEAC) asked the PP to comply with the following:

1. Submit a certificate from concerned DMO about the year-wise production details since 1994 and the highest production achieved in any one year prior to 1994.



- II. PP has to submit an undertaking from its Board that there will be no violation in future.

Based on the information furnished and presentation made, SEAC suggested TORs to SEIAA, undertaking detailed EIA study.

SEIAA, Jharkhand has approved the TORs suggested by SEAC in its meeting held on 25.07.2013.

**The TORs prescribed for undertaking detailed EIA study 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 violation of Environmental Protection Act 1986 and 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. 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 judgment of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any claim by the project proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

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 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. In case, there is no such Eco-sensitive area within 10 km, the boundary of the nearest Eco-sensitive area with its distance shall be marked in a drawing and included in EIA / EMP Report.
21. 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.
22. Impact, if any, of change of land use should be given.
23. 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.
24. One month (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 (twice a week for 4 weeks) presented date-wise in the EIA and EMP report. The committee agreed that the data generated in past one year (non – monsoon) at Chirodih, Kujam, Amtipani and new Amtipani could be used. The location of the air monitoring stations (3) should be at 120 degrees. Data in respect of water quality, noise level, soil should be collected once during the proposed monitoring month. The entire data including the old data should 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. The mineralogical composition of PM10 particularly for free silica should be given.
25. Air quality modeling should be carried out for prediction of impact of the project on the a 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.
  26. 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.
  27. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  28. Details of water conservation measures proposed to be adopted in the project should be given.
  29. Impact of the project on the water quality both surface and groundwater should be assessed and necessary safeguard measures, if any required should be provided.
  30. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed hydro geological study should be undertaken and report furnished. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
  31. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  32. Details of rainwater harvesting in the project should be provided. The same should be got approved from Ground Water Directorate Government of Jharkhand.
  33. 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.
  34. 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).
  35. The reclamation plan, mine closure plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  36. 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.
  37. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.



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38. 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.
  39. 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.
  40. 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.
  41. 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.
  42. 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.
  43. 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.
  44. 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.
  45. Details of litigation pending against the project, if any, with direction / order passed by any Court of Law against the project should be given.
  46. 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.



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- 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 SEIAA, Jharkhand 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.

3. 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.

4. 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.

Sd/-  
Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand.

Memo No. 107.

Dated: 14/08/2013

Copy to:

1. Principal Secretary, Department of Forest & Environment, Jharkhand.
2. Deputy Commissioner, District- Gumla, Jharkhand.
3. Divisional Forest Officer, Gumla Division, Gumla, Jharkhand.
4. Director IA Division, Monitoring Cell, MOEF, GoI, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi - 110003
5. District Mining Officer, District- Gumla, Jharkhand.
6. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
7. Guard file.

  
14/8/13  
Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand