

**F. No. J-11011/208/2010-IA-II (I)**  
**Government of India**  
**Ministry of Environment and Forests**  
**(I.A. Division)**

**Paryavaran Bhawan**  
**CGO Complex, Lodhi Road**  
**New Delhi – 110 003**  
**E-mail: ms.industry-mef@nic.in**  
**Tele/fax: 011 – 2436 3973**  
**Dated: 13<sup>th</sup> July, 2010**

To,

Shri S. Madhva Reddy  
**M/s Shri Ramakrishna Ferro Alloys (India) Pvt. Limited**  
# 115, 5<sup>th</sup> Cross, 5<sup>th</sup> Main, NGEF Layout,  
RMV IInd Stage,  
Bangalore- 560 094

Cell: 09845208923

**Sub:** Proposed for Ferro Alloys Plant at Village-Gollapuram, Mandal-Hindupur, Dist-Ananthapur, Andhra Pradesh by **M/s Shri Ramakrishna Ferro Alloys (India) Pvt. Ltd.- (TOR)**

Sir,

Kindly refer to your letter no. nil dated 10<sup>th</sup> February, 2010 along with Form-I and proposed TORs as per the EIA Notification, 2006.

2. The above proposal was considered by the Expert Appraisal Committee-1 (Industry) in its 11<sup>th</sup> meeting held on 24-26<sup>th</sup> June, 2010 for prescribing TORs for undertaking detailed EIA /EMP study. Based on the information furnished and presentation made by you and your consultant, the Committee prescribed the following TORs for preparation of EIA/EMP Report as per the following TORs:

1. Executive summary of the project.
2. Photographs of plant area.
3. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
4. A copy of Gazette Notification showing that the unit is located in the Notified Industrial Area.
5. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
6. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like

quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.

7. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing landuse/landcover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
8. A list of industries within 10 km radius of the plant area.
9. Details and classification of total land (identified and acquired) should be included.
10. Project site layout plan showing raw materials and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
11. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
12. Quantification & Characterization of solid /hazardous waste & its action plan for management should be included.
13. Mass balance for the raw material and products should be included.
14. Energy balance data for all the components of ferro alloy plant should be incorporated.
15. Design details of Ferro Alloy Plant and manufacturing process details should be included.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
18. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
19. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
20. Air quality modeling for ferro alloy plant for specific pollutants needs to be done. APCS for the control of emissions should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
21. Ambient air quality as per National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
22. Air Quality Impact Predication Modelling based on ISCST-3 or the latest models.
23. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
24. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.

25. Presence of aquifer/aquifers within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
26. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
27. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
28. 'Permission' for the drawl of 24 m<sup>3</sup>/day from APIIC . Water balance data must be provided.
29. A note on the impact of drawl of water on the nearby River during lean season.
30. Action plan for rainwater harvesting measures.
31. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
32. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
33. Pretreatment of raw water, treatment plant for waste water should be described in detail. Design specifications may be included.
34. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
35. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources should also be included.
36. Identification and details of land to be used for all type of slag disposal in the secured land fill as per CPCB guidelines should be included.
37. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
38. Provision of Toxic Chemical Leachability Potential (TCLP) test for the slag and its end use should be included.
39. Commitment that no Ferro chrome will be manufactured without prior approval of the Ministry.
40. Acton plan for the green belt development plan in 33 % area should be included.
41. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
42. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
43. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and



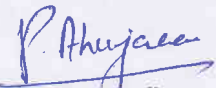
- plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
44. At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details alongwith time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
  45. Total capital cost and recurring cost/annum for environmental pollution control measures should also be included.
  46. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- (v) The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- (vii) 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.
- (viii) The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

3. It was decided that 'TORs' prescribed by the Expert Appraisal Committee-1 (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. It is noted that no public hearing/consultation is required due to project being located in notified industrial area as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006. The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP.

Yours faithfully,

  
(Dr. P.L. Ahujarai)  
Scientist 'F'

**Copy to:** The Chairman, Andhra Pradesh State Pollution Control Board, 2<sup>nd</sup> Floor, HUDA Complex, Maitrivaram, S.R.Nagar, Hyderabad- 500 038.

  
(Dr. P.L. Ahujarai)  
Scientist 'F'