

**F. No. J-11011/500/2009- IA II (I)**  
**Government of India**  
**Ministry of Environment and Forests**  
**(I.A. Division)**

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**CGO Complex, Lodhi Road**  
**New Delhi – 110 003**  
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**Dated: October 26<sup>th</sup>, 2010**

To,  
The Director,  
M/s Shree Shakambari Ferro Alloys Pvt. Limited  
C/o Mortex India, 1A, East India House  
20/B, British Indian Street, Kolkata- 700 001,  
West Bengal

**E-mail: [nk@mortex.in](mailto:nk@mortex.in)**

**Sub: Ferro Alloy Plant (Fe-Si, 8,490 MTPA) along with Captive Power Plant (10 MW) at Village Riwiang, BPO Seinduly, Near Riango, via Nongstoin, West Khasi Hills, Meghalaya by M/s Shree Shakambari Ferro Alloys Pvt. Limited regarding Environmental Clearance**

Sir,

This has reference to your letter no. SSFAPL/Riw/Env./2010-11/04 dated nil received in the Ministry on 28.6.2010 along with a copy of EIA/EMP and public hearing reports seeking environment clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the application for the above project. It is noted that M/s Shree Shakambari Ferro Alloys Pvt. Ltd. have proposed to install a Ferro Alloy Plant (Fe-Si, 8,940) along with Captive Power Plant (10 MW) at Village Riwiang, BPO Seinduly, Near Riango, Via Nongstoin, West Khasi Hills, Meghalaya. River Riwiang flows at a distance of 1 km from the project site. Total land requirement is 11.47 acres which is already acquired and Green belt will be developed in 3.65 acres. No R & R is involved. No national park / wild life sanctuary / reserve forest is located within 10 km radius of the project site. Total cost of the project is Rs. 2997 Crores.

3. Fume extraction with bag filters will be provided to ferro alloy plant to control the particulate emission Electrostatic precipitator will be installed for captive power plant to mitigate the SPM Levels within 50 mg/Nm<sup>3</sup>. The SO<sub>2</sub> emission will be controlled by using lying in boiler. Ash handling plant will be installed for fly ash management. Fugitive emissions will be minimized by providing water sprinklers. Dust extraction and dust suppression system will be provided to control the fugitive emission at the coal handling plant. The dry fog system will be provided to control the fugitive emissions at coal crusher house, ash & coal unloading and coal storage area.



4. Total water requirement will be 5016m<sup>3</sup>/day which will be met from River Riwiang. About 4766 m<sup>3</sup>/day of water requirement will be met due to water recycling. The make up water requirement will be 250m<sup>3</sup>/day. It is proposed to harvest the rain water from the Roof top and surface which will be stored in reservoir. The water will be used after treatment. No process wastewater will be generated from ferro alloy plant. All the domestic and industrial effluent will be treated and reused in the plant and plantation and activities. Blow down water from cooling tower will be neutralized and the residual water after dilution will be used for dust suppression, gardening, washing, cleaning of toilets etc. The effluent from the septic tank will be disposed in soil by providing disposing trenches. Silencers will be provided to modulate noise from machines. Power requirement of ferro alloy plant will be met from captive power plant (10 MW). DG sets (325 KW) will be used as stand-by arrangement.

5. The solid waste will be generated in the form of bottom ash which will be used for refilling of bed material. Ferro-Silicon slag will be used for road making. Fly ash will be sold to cement plants, used for road construction and land filling. There will be no industrial sludge generated.

6. All the Ferro alloy plants are listed at S.N. 3(a) under Primary Metallurgy Industry under Category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

7. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 14<sup>th</sup> meeting held during 23<sup>rd</sup> - 25<sup>th</sup> September, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing of the project was held on 28<sup>th</sup> April, 2010.

8. Based on the information submitted by you, presentation made by you and consultant, M/s Ecomen Laboratories Pvt. Ltd., Lucknow, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS :**

- i. No charcoal shall be used as fuel. Pet coke shall be used as fuel instead of charcoal from unknown sources.
- ii. Continuous monitoring facilities for all the stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/Nm<sup>3</sup>.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.



- iv. Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- v. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.
- vi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Shillong, SPCB and CPCB.
- vii. The total water requirement shall not exceed 5016m<sup>3</sup>/day. Permission from the State Irrigation Department / Central Ground Water Board for drawl of water shall be obtained as may be applicable in this case.
- viii. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.
- ix. All the ferro alloy slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.
- x. At the design stage, protection of the plant from the flood hazard shall be taken and preventive measures shall be taken at the construction stage.
- xi. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Shillong, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xii. As proposed, green belt should be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 28<sup>th</sup> April, 2010 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Shillong.
- xiv. At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound



action plan (need based) should be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.

- xv. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

**B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Meghalaya Pollution Control Board (MPCB) and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the MPCB including one ambient air quality monitoring station in the downwind direction. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Shillong and the MPCB / CPCB once in six months.
- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP



report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

- ix. As proposed, Rs. 163.00 Lakhs and Rs. 60.00 Lakhs shall be earmarked towards the capital cost and recurring cost/annum for environmental protection measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the **MPCB**. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF at Shillong, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Shillong / CPCB / **MPCB** shall monitor the stipulated conditions.
- xiii. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.
- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the MPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the



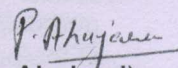
clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Shillong.

- xv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

9. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.


10. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

11. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

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

**Copy to:**

1. The Secretary, Forests and Environment Department, Sylvan House, Lower Lachumiere Shillong -793 001.
2. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office (NEZ), Upland Road, Laitumkhrah, Shillong - 793 003, Meghalaya.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Meghalaya State Pollution Control Board, 'Arden' Phase-III, Lumpynggad, Shillong - 793 014, Meghalaya
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File.
7. Monitoring File.
8. Record File.

  
(Dr. P. L. Ahujarai)  
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