

F. No. J-11011/330/2008- 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 : pb.rastogi@nic.in
Telefax : 011: 2436 7668
Dated 19th October, 2009

To,

The Chief Executive Officer
M/s Shyam Century Ferrous
[A Division of Century Plyboards (I) Ltd.]
EPIP, Rajabagan, Byrnihat, Meghalaya

E-mail : ykc@cmcl.co.in ; Fax No. : 033-2448 4169 / 2248 3539

Subject : Expansion of Ferro Alloy Plant (18 MVA to 27 MVA) at Export Promotion Industrial Park (EPIP), Rajabagan, Byrnihat, Taluka Nongpoh, District Ri-Bhoi, Meghalaya by M/s Shyam Century Ferrous [A Division of Century Plyboards (I) Ltd.] – Environment clearance req.

Ref. : Your letter no. nil dated 17th July, 2009.

Sir,

This has reference to your no. nil dated 17th July, 2009 alongwith application in Form I, draft Terms of Reference and EIA/EMP and subsequent clarifications furnished by you vide your letters dated 31st August, 2009 and 3rd September, 2009 for environmental clearance on the above mentioned project.

2 0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for the expansion of Ferro Alloy Plant (18 MVA to 27 MVA) at Export Promotion Industrial Park (EPIP), Rajabagan, Byrnihat, Taluka Nongpoh, District Ri-Bhoi, Meghalaya by M/s Shyam Century Ferrous [A Division of Century Plyboards (I) Ltd.]. Project is located in Export Promotion Industrial Park (EPIP).

km radius of the proposed project. Total cost of the proposed expansion will be Rs 13.00 Crores. Following are the details of existing and proposed facilities:

S.N	Facility	Existing	Proposed expansion	After expansion
1	Submerged Arc Furnace	18 MVA (2x 9 MVA)	9 MVA (1x 9 MVA)	27 MVA
2	Captive Power Plant	13.8 MW	-	13.8 MW

The production capacities of Ferro Silicon and Silico-Manganese from the proposed plant will be as follows:

S.N	Product	Existing capacity	Capacity after proposed expansion
1	Ferro-Silicon	5,310 MTPA	21,600 MTPA
		and	or
2	Silico-Manganese	11,985 MTPA	43,200 MTPA

3.0 Silico-Manganese and Ferro-Silicon will be smelted in submerged arc furnace. Raw material mix is charged into the furnace. Reactions take place at high temperatures in the furnace. The liquid product will be tapped into a ladle or Cast Iron (C.I.) moulds or on the sand beds. Raw materials required for manufacture of Silico-Manganese will be Manganese ore, coke, quartz, dolomite. Charcoal, quartz and mill scale will be used for Ferro-Silicon manufacture. Carbon paste, lancing pipe, MS rods, H R sheets will be used as consumables.

4.0 Fume extraction system with smoke collection hood and water based scrubbing dust suppression system will be provided to the proposed arc furnace. Bag filters, dust suppression / dust extraction system will be provided to control fugitive emissions. Total make-up water requirement for proposed expansion from Umtru River will be 72 m³/day. No liquid effluent will be generated since closed circuit system is adopted. Process effluent will be neutralized in neutralization pit and the treated water will be used for ash slurry making/sprinkling/green belt development. Ferro-Silicon slag will be sold to foundries. Silico-Manganese slag will be disposed of in low-lying areas or used for road making. Fly ash from the existing captive power plant is used for cement manufacturing. Green belt will be developed in 9,000 m², out of total 26,714 m².

5.0 Public hearing/public consultation is exempted due to location of the project in notified Export Promotion Industrial Park (EPIP) as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006.

6.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

- i) 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, I D fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 100 mg/Nm³. The Meghalaya Pollution Control Board (MPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.

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In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust extraction system with bag filters shall be provided to control fugitive emissions from material handling, conveying and screening operations by evacuating in closed systems. Dust suppression system including water sprinkling shall be provided to control fugitive emissions from storage; transportation of raw material. Ash conditioners shall be installed at loading and transport points to control dust pollution. Bag filters and de-dusting units shall be provided at crushers, transfer points of conveyors, raw material and product handling areas to meet the MPCB norms. Asphalting or concreting of the roads shall be done to control fugitive emissions.

- 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) Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product. Fugitive emissions from all the sources shall be monitored and records maintained.
- vi) Total water requirement from Umtru River shall not exceed $72 \text{ m}^3/\text{day}$. Closed cycle water re-circulation system shall be adopted to reduce the water consumption. All the process effluent from all the sources including existing captive power plant shall be neutralized in neutralization pit and the treated water shall be used for ash slurry making/sprinkling/green belt development. The effluent shall be treated to meet the norms specified by CPCB and MPCB. Oil and grease shall be removed by means of oil traps and skimming devices. No effluent shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Domestic wastewater shall be treated in septic tank followed by soak pit and used for green belt development.
- vii) Prior permission for the drawl of $72 \text{ m}^3/\text{day}$ water from Umtru River shall be obtained from the concerned department and a copy submitted to the Ministry's Regional Office at Shillong within 3 months of the issue of environment clearance.
- viii) 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- ix) 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 shall also be regularly carried out and report submitted to the Ministry's Regional Office at Shillong, Meghalaya SPCB and CPCB.
- x) 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. Ferro-Silicon slag shall be sold to foundries for further utilization. All the other solid waste shall be properly disposed off in environment-friendly manner. No hazardous materials shall be spilled out and good house keeping practices shall be adopted. Used oil/lubricants shall be sold to authorized recyclers / reprocessors.
- xi) All the fly ash from the existing captive power plant should be utilized as per Fly Ash Notification, 1989 subsequently amended in 2003. Fly ash should be provided to cement

- xii) No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.
- xiii) Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Shillong, Meghalaya SPCB and CPCB
- xiv) A Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office at Shillong, Meghalaya SPCB and CPCB within 3 months of issue of environment clearance letter.
- xv) As proposed, green belt shall be developed in 9,000 m² (33 %) out of total 26,714 m² area within and around the plant premises as per the CPCB guidelines in consultation with DFO.
- xvi) Prior permission from the State Forest Department shall be taken regarding likely impact of the expansion of the proposed steel plant on the reserve forests. Measures shall be taken to prevent impact of particulate emissions / fugitive emissions, if any from the proposed plant on the surrounding reserve forests viz. Myllem RF and Markodola RF located within 10 km radius of the project. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.
- xvii) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro Alloy Units shall be strictly implemented.
- xviii) 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, SO₂ and NO_x are anticipated in consultation with the MPCB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Shillong, MPCB and CPCB once in six months.
- iv. Fume and dust extraction system with bag filters shall be provided at the transfer and discharge points to control fugitive emissions. Further, specific measures like water sprinkling around the raw material storage areas and asphaltting or concreting of the roads shall be done to control fugitive emissions.
- v. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1992 or as amended from time to time. The treated wastewater shall be utilized for

- vi. 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.
- vii. 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).
- viii. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- x. 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.
- xi. As proposed, Rs. 40.00 Lakhs and Rs. 10.00 Lakhs shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures shall be 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.
- xii. 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.
- xiii. 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, SO₂, NO_x (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.
- xiv. 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 respective Regional Office of MOEF, the respective Zonal Office of CPCB and the MPCB. The Regional Office of this Ministry at Shillong / CPCB / MPCB shall monitor the stipulated conditions.
- xv. The environmental statement for each financial year ending 31st 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.

with the OPCB 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.

xvii. 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.

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

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

9.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

10.0 The above conditions will 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 and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

(Dr. P. B. Rastogi)
Director

Copy to:

1. The Chairman, Meghalaya State Pollution Control Board, Arden, Phase-III, Lumpyhnggad, Shillong - 793 014, Meghalaya.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032.
3. Chief Conservator of Forests (Central), Ministry of Environment and Forests, (North-eastern Region, Upland Road, Laitumkhrah, Shillong - 793 003, Meghalaya.
4. Adviser I/II (I), Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Guard File.
7. Monitoring File.
8. Record File.

(Dr. P. B. Rastogi)
Director