

F. No. J-11011/365/2009- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: October 29th, 2010

To,
The Director,
M/s Shivam Iron & Steel Co. Limited
Kalyani Apartment, 1st Floor,
Gandhi Chowk, Giridih- 815301,
Jharkhand

E-mail: shivam@shivamirm.com
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Sub: Expansion of existing steel plant at Plot no. 666, 708, 494, 672, 673, 674, 706, 710-712, Jambad, P.O. Udnabad, Mouza Routgadi, P.S. Giridh in Jharkhand by M/s Shivam Iron & Steel Co. Limited - regarding Environmental Clearance

Sir,

This has reference to your letter no. SISCO/MOEF/36(I)/2009-10 dated 9th July, 2009 along with copies of EIA/EMP/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 Shivam Iron & Steel Co. Ltd. have proposed for the expansion of existing steel plant at Giridh in Jharkhand. The existing plant is located in 10 acres. The expansion will be carried in additional land area of 27 acres just adjacent to the existing plant. No R&R is involved. Green belt will be developed in 33% of total plant area. 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. 154.92 Crores. Rs. 11.62 Crores and Rs. 1.74 Crores will be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures.

3. Following are the details of existing and proposed facilities and production capacity:

S.N.	Units	Products	Facility	Production (TPA)
A	Existing			
1	Ferro Alloy Plant	Silico Manganese, Ferro Manganese	2x6 MVA	18,700
B	Proposed			
1	DRI Plants	Sponge Iron	4x100 TPD	1,20,000
2	Ferro Alloy Plant	Silico Manganese, Ferro Manganese	1x6 MVA	9,350
3	Captive Power Plant WHRB AFBC	Power	8 MW 12 MW	20 MW

4. To control the particulate emissions like ESP, bag filters and dust extraction system will be provided in sponge iron plant. ESP will be provided to captive power plant and the clean gases will be discharged through a stack of adequate height. Fume extraction system comprising hood / convoy, duct, bag filter and chimney etc. will be provided to submerge arc furnace (SAF). Dust extraction/suppression systems will be installed at all the locations of dust generation. Water sprinkling system will be used to control fugitive emissions during handling of coal and other raw material handling.

5. It is noted that make up water requirement of 475 m³/d will be met from the Usri River. Effluent Treatment Plant (ETP) will be installed for the treatment of wastewater and treated in neutralization pit. All the effluent will be treated and used for dust suppression and green belt development. No effluent will be discharged and 'zero' discharge will be adopted. Domestic effluent will be treated in septic tank followed by soak pit.

6. The solid waste will be generated in the form of Dolochar from DRI Plant which will be used in captive power plant (CPP). Fly ash from the AFBC boiler of CPP will be sold to cement/brick manufacturers. Slag from ferro alloy plant and bottom ash will be used for land filling. Ferro manganese slag will be used as raw material for silico manganese production. Total power requirement of 23 MW will be met from the CPP (20 MW) and from DVC State Grid (3 MW).

7. All the steel plants have been kept at S.No. 3(a) under primary metallurgical industry under category 'A' and appraised at Central level.

8. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 14th meeting held during 23rd - 25th 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 6th March, 2010

9. Based on the information submitted by you, presentation made by you and consultant, M/s Envirotech East Pvt. Ltd., Kolkata, 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. Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iii. Gaseous emission levels including 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. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 should be followed.
- iv. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in

waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.

- v. Total water requirement shall not exceed 475 m³/d. Permission for drawl of water from the state government shall be obtained. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- vi. Regular monitoring of influent and effluent surface, sub-surface and ground water (including chromite) shall be ensured and treated wastewater should 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 Bhubaneswar, JSPCB and CPCB.
- vii. All the coal fines and char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be used for briquette making or disposed off anywhere else. AFBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning.
- viii. Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- ix. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
- x. 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 should be submitted to the Ministry's Regional Office at Bhubaneswar, JSPCB and CPCB.
- xi. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- xii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB within 3 months of issue of environment clearance letter.
- xiii. As proposed, green belt shall be developed in 33 % of plant area as per the CPCB guidelines in consultation with the DFO.
- xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xv. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 6th March, 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 Bhubaneswar.

- xvi. 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 should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.
- xvii. 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 Jharkhand Pollution Control Board (JPCB) and the State Government.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
- iii. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.
- iv. 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 Jharkhand PCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the Jharkhand PCB/CPCB once in six months.
- 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, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
- vi. 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).
- vii. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- viii. The company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.
- ix. 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.

- x. As proposed, Rs. 4.51 Crores and Rs. 1.10 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control 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.
- xi. The Regional Office of this Ministry at Bhubaneswar / CPCB / Jharkhand SPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- xii. 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 JSPCB 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.
- xiii. 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.
- xiv. 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 JPCB. 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.
- xv. 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 Bhubaneswar, the respective Zonal Office of CPCB and the JPCB. The Regional Office of this Ministry at Bangalore / CPCB / JPCB shall monitor the stipulated conditions.
- xvi. 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.

- 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.
10. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
12. 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 and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

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

Copy to:-

1. The Secretary, Department of Environment, Govt. of Jharkhand, Jharkhand.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi ? 110 032.
3. Chairman, Jharkhand Pollution Control Board, Jharkhand, Town Administrative Building, H.E.C., Dhruwa, Raanchi - 824004, Jharkhand.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar - 751 023, Orissa.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell
8. Guard File.
9. Record File.

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(Dr. P. L. Ahujara)
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