

F. No. J-11011/724/2007- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
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Dated 1st August, 2008

To,

The Director
M/s Sova Ispat Ltd.
Hahnemaun Sarai, Angadpur
Durgapur-15
West Bengal

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E-mail : sial@sancharnet.in ; Fax No. : 0343-259069/ 033-22428432, 03241-250527

Subject: Expansion of Integrated Iron & Steel Plant at J.L. No. 11, Jemua Mouza, Mejia Block, District Bankura, West Bengal by M/s Sova Ispat Ltd. - Environmental clearance reg.

Sir,

Kindly refer your letter no. SIL/Pollution/MEF/2007/01 & 02 dated 18th July, 2007 alongwith project documents including Form I, Feasibility Report and draft Terms of Reference, EIA/EMP and subsequent clarifications furnished vide communications dated 20th July, 2007, 23rd August, 2007, 5th September, 2007, 15th February, 2008, 20th February, 2008 and 30th April, 2008 regarding 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 Integrated Iron & Steel Plant at J.L. No. 11, Jemua Mouza, Mejia Block, District Bankura, West Bengal by M/s Sova Ispat Ltd. Total project area is 150 acres instead of 100 acres. Total cost of the project is Rs. 754.00 Crores. Sponge iron plant (300 TPD) exists since June, 2005. Finally, following will be manufactured during expansion :

Particulars	Existing	Proposed	Total
1. Sponge Iron (Use in house & Sister concern)	90,000	2,70,000	3,60,000
2. Sponge Iron Briquette		60,000	60,000
3. Coal/Coke/Chrome fines Briquette		90,000	90,000
4. Mini Blast Furnace		1,20,000	1,20,000
5. Sinter Plant (Captive use in MBF) (MTPA)		80,000	80,000
6. Oxygen Plant (Captive use in AOD (SMS+))		4,000	4,000
7. Steel Melting Shop (Captive use in Rolling Mills)		3,56,000	3,56,000
8. Captive Power Plant (Captive use in Ferro Alloy & SMS)		52 MW	52 MW
9. Ferro Alloy		55,000	55,000
10. Cement plant (MTPA)		75,000	75,000
11. Hot Rolled TMT / Structural / Cold Rolled Bars		3,15,000	3,15,000

3.0 Sponge Iron Plant (4x300 TPD), Ferro Alloy Plant (3x9 MVA submerged EAF), Mini Blast Furnace (MBF), Steel Melt Shop (SMS), Pig Casting Machine, Sinter Plant, Oxygen Plant, Rolling Mills, Cement Plant will be installed. Iron ore, Manganese Ore, coal etc. will be used as raw material. All the sponge iron generated (3,60,000 TPA) will be fully utilized in the sister plant at Durgapur. Clinker for the cement plant will be purchased from outside and slag, limestone, fly ash, coal will be used as raw material in Cement Plant.

4.0 Electrostatic precipitator (ESP), bag filters, cyclone, atomized water spray system will be provided to control emissions. All the gas generated from rotary kiln will be used in Waste Heat Recovery Boiler (WHRB) and Atmospheric Fluidized Bed Combustion Boilers (AFBC). Total water requirement from Damodar River will be 5,928 m³/day and sanction from Damodar Valley River Regulation Committee is obtained for 1.3 MG drawl of water. Re-circulating condenser cooler will be provided. Ash water will be recycled and re-used for different purposes at the project site. Char/Dolochar will be used in AFBC boiler (20 MW). Slag will be granulated in the slag granulation plant and used in the in-house cement plant. Iron ore fines, coke fines and flux will be used in sinter plant. Fly ash will be provided to brick manufacturers and bottom ash to other users. Dust from BF and Sinter plant will be used in Sinter plant. Ferro-Mn slag will be used in Silico-Mn manufacturing.

5.0 Public Hearing / Public Consultation meeting was held on 26th March, 2008.

6.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification, 2006 as amended subsequently 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 stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided and limit of SPM shall be controlled within 50 mg/Nm³ from the cement plant and 100 mg/Nm³ from all other sources including captive power plant by installing adequate air pollution control system. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, CPCB and W. B. Pollution Control Board (WBPCB) once in six months.
- ii) As proposed, electrostatic precipitator (ESP) shall be provided to DRI kilns and cement plant to control emissions within 100 mg/Nm³. The waste gases from the DRI kiln shall be passed through the After Burning Chamber (ABC) and Dust Settling Chamber (DSC) to settle the dust particles and hot gases from ABC shall be taken to gas cleaning plant to burn the combustibles and cleaned in ESP. DRI kiln shall be provided with waste heat recovery boiler (WHRB) to make use of flue gases generated during the process.
- iii) The Environment Standards for Sponge Iron Plants notified by the Ministry of Environment & Forests in May, 2008 shall be strictly implemented.
- iv) In-plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials/coal handlings etc. shall be provided. Bag filters shall be provided at the stock house, product house, cooler discharge area and

transfer points to control fugitive emissions. Atomized water spray shall be provided to control secondary fugitive emissions from the DRI units. Cyclones shall be provided to sinter plant. Dust generated shall be transported by pneumatic conveyors and used for brick manufacturing. Ventury scrubbers and cyclones shall be provided to blast furnace. Dust suppression system shall be provided to control dust from raw material handling and storage area.

- v) Secondary fugitive emissions from blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued in this regard by the CPCB shall be followed.
- vi) Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
- vii) Total water requirement from Damodar River shall not exceed 5,928 m³/day. Re-circulating condenser cooler shall be provided. Effluent treatment plant (ETP) shall be installed and all the treated wastewater including blow down water from Blast furnace, Sinter plant, Oxygen plant, SMS, Caster etc. shall be recycled and reused in the process, dust suppression and green belt development. Ash water shall also be recycled and re-used for different purposes at the project site. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- viii) Prior permission for the drawl of 5,928 m³/day water from Damodar River shall be obtained from the concerned department. No ground water shall be utilized.
- ix) All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else. Ferro-Mn slag shall be used in Silico-Mn manufacturing. The slag from the ferro alloy plant shall be used for road construction only after passing through Toxic Chemical Leachability Potential (TCLP) test. Iron ore fines, coke fines and flux shall be used in sinter plant. Dust from blast furnace and sinter plant shall be used in sinter plant. All the blast furnace (BF) slag shall be granulated and used in the in-house cement plant. SMS slag shall also be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- x) All the blast furnace slag shall be granulated. Granulated slag and sludge shall be used in-house cement manufacturing. All the dust from the air pollution control equipments shall be recycled and reused in the sinter and cement plant. Coal and coke fines shall be recycled and reused in the process. Iron ore, fluxes, Mill scale etc. shall be recycled to sinter plant to produce sinter. Waste oil shall be sold to authorized recyclers/reprocessors.
- xi) An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly.
- xii) A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

- xiii) All the fly ash shall be utilized as per Fly Ash Notification, 1999 as amended in 2003. Fly ash shall be provided to brick manufacturers and bottom ash to other users for further proper utilization.
- xiv) Permission and recommendations of the State Forest Department regarding impact of the proposed plant on the surrounding Gangajalghati protected forest (3 Km.) shall be obtained and recommendations, if any, shall be implemented.
- xv) As proposed, green belt shall be developed in 50 acres (33%) out of 150 acres land available in and around the plant as per the CPCB guidelines within and around the plant premises as per the CPCB guidelines in consultation with DFO.
- xvi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be strictly implemented.

B. GENERAL CONDITIONS :

- i. The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board (WBPCB) 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 WBPCB 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. The Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- ✓ In-plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials/coal handlings etc. shall be provided. Further, specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc. shall be installed at material transfer points and other raw material handling areas. Centralized de-dusting system i.e. collection of fugitive emissions through suction hood and subsequent treatment through bag filter or any other device and finally emitted through a stack of appropriately designed height conforming to the standards. Fugitive emissions shall be regularly monitored and records maintained.
- ✓ At least, four ambient air quality-monitoring stations should 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 WBPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, WBPCB and CPCB once in six months.
- vi. 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.

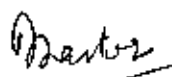
- vii. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed 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 company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- x. 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.
- xi. The project authorities shall earmark Rs. 25.00 Crores and Rs. 1.55 Crores towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Ministry's Regional Office at Bhubaneswar. The funds so provided should not be diverted for any other purpose.
- xii. The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- xiii. 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 WBPCB 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 should be forwarded to the Regional office.
- xiv. 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.

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

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

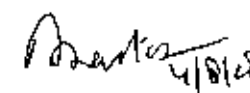
8.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

9.0. 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.


(Dr. P. B. Rastogi)
Director

Copy to :-

1. The Secretary, Department of Environment, Govt. of West Bengal, Kolkata, West Bengal.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, West Bengal Pollution Control Board, Parivesh Bhawan, 10A Block-LA, Sector-III, Salt Lake, Kolkata - 700091, West Bengal.
4. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests A-3, Chandrashekharapur, 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. Guard File.
8. Monitoring File.
9. Record File.


(Dr. P. B. Rastogi)
Director