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F. No. J-11011/128/2010-IA-II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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New Delhi – 110 003
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Tele/fax: 011 – 2436 3973
Dated: 14th January, 2011

To,
The Director,
M/s. Sundaram Steels Pvt. Ltd
Flat No. 1C, The Empire Building,
Opp. Hazra Nursing Home,
Telephone Exchange Road,
Dhanbad- 826001

Tele/fax: 0326- 2301196
E-mail: sundaramsteels@gmail.com

Sub: Proposed Sponge Iron Plant (2x90 TPD) along with 8 MW Captive Power Plant at B-7, Phase-III, Bokaro Industrial Area, Balidih, Bokaro, Jharkhand by M/s Sundaram Steels Pvt. Limited – regarding Environmental Clearance

Sir,

This has reference to your letter no. SSPL/MOEF/EC/03 dated 4.10.2010 along with a copy of EIA/EMP report 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 Sundaram Steels Pvt. Ltd have proposed for setting up of Sponge Iron Plant (2x90 TPD) along with 8 MW Captive Power Plant at B-7, Phase-III, Bokaro Industrial Area, Balidih, Bokaro, Jharkhand. Total land requirement will be 25 acres and green belt will be developed in 8.25 acres out of 25 acres of plant area. No litigation/ court case is pending against project. No National Park and Wild life sanctuary are present within 10 km radius of the project site. Distance from Sindri is 47.0 Km, which has been designated as critically polluted area. Iron ore (86,400 TPA from Joda Barbil, Odisha), Coal & Coal fines (94,500 TPA from Mahanadi Coal Field Ltd., Odisha) through e-auction and Dolomite (1,800 TPA from Rajgangpur, Odisha) will be used as raw materials. Total project cost is Rs. 64.0 Crores. Rs. 3.3 Crores and Rs. 0.6 Crores will be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures.

3. ESP & bag filters will be installed for control of particulate emission. Adequate stack height will be provided to the DG set. Bag filters will be installed to control emissions at the product house, coal handling and iron ore handling area. Dry fog and water sprinkler will be provided to suppress the fugitive emissions at roads.

4. The water requirement will be $46\text{m}^3/\text{hr}$ which will be met from ground water source. No effluent will be generated from process. Cooling water will be completely recycled and Zero discharge concept will be adopted. Sewage ($0.5\text{m}^3/\text{hr}$) will be treated in Septic tank and discharged to soak pit.
5. Char and coal fine will be generated from DRI Kiln, which will be used in FBC boiler. Fly ash generated from power plant will be sold to brick & cement manufacturers and balance will be stored in ash mound. About 4.0 acres of land area has been earmarked for solid waste disposal and ash pond.
6. All the Sponge Iron plants with capacity < 200 TPD are listed at S.No. 3(a) in Primary Metallurgical Industries under category 'B' of the Schedule of EIA Notification, 2006 and should have been appraised by the State Environment Appraisal Committee. Due to the absence of State Level Appraisal Committee in Jharkhand, the said project has been appraised by the EAC (Industry) in the Ministry. Public hearing is exempted, since the project is located in Notified Industrial Area.
7. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 17th meeting held during 13th - 14th December, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. It is noted that no public hearing/consultation is required due to project being located in the notified Bokaro Industrial Area as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006.
8. Based on the information submitted by you, presentation made by you and consultant, M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar, 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. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 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 should be followed.
- iii. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.

- iv. Dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points. De - congestion plant to prevent heavy movement of trucks shall be prepared and submitted.
- v. Hot gases from the 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 dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.
- vi. Total water requirement shall not exceed $46\text{m}^3/\text{hr}$. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants. Water storage reservoir capacity shall be increased with a minimum capacity for 2 months.
- vii. 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.
- viii. All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else. AFBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning. Mill accretions shall be used for bricks manufacturing.
- ix. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and its subsequent amendments. All the fly ash should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office at Bhubaneswar.
- x. Management plan As, Hg and Se shall be submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of environment clearance.
- 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 Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance.
- xii. As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the

DFO. In the NS and SE of the plant area, width of the green belt shall be enhanced to 15-20 m.

- xiii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Sponge Iron Plants should be implemented.
- 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 should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. 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 Jharkhand State Pollution Control Board 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. 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 should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/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).

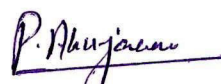
- vii. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- viii. The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- 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. Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment 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 Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.
- xi. 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.
- xii. 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 at Bhubaneswar the respective Zonal Office of CPCB and the CECB. The criteria pollutant levels namely; PM₁₀, 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.
- xiii. 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, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB / SPCB shall monitor the stipulated conditions.

- xiv. 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 Office of the MOEF at Bhubaneswar by e-mail.
- xv. 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 SPCB 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 at Bhubaneswar.
- xvi. 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. Ahujara)
Scientist -F

Copy to:-

1. The Secretary, Department of Forest, Govt. of Jharkhand, Nepal House, Ranchi.
2. The Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office, (EZ) A-3, Chandrashekharpur, Bhubaneswar-715023.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi – 110 032.
4. The Chairman, Jharkhand State Pollution Control Board, T.A Division Building (Ground Floor) HEC Campus, Dhurwa, Ranchi -834004.
5. The Director (Monitoring Cell), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.

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