

F. No. J-11011/891/2007- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: June 18, 2010

To,

M/s Shah Sponge and Power Pvt. Ltd.
Sadar Bazar, P.O. Chaibasa-833201
District West Singhbhoom,
Jharkhand

E mail shahbros-1982@sify.com

Sub: Sponge Iron (60,000 TPA), Pig Iron Plant (36,000 TPA and Captive Power Plant (8 MW) at Village Bhumri (Juri), P. O. Hata, District East Singhbhum, Jharkhand by M/s Shah Sponge and Power Pvt. Ltd.- reg environmental clearance

Sir,

This has reference to your letter no. nil dated 7th July, 2009 along with copies of final EIA report and public hearing report seeking environment clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the proposal. It is noted that M/s Shah Sponge & Power Pvt. Ltd. have proposed to set up Steel Plant [Sponge Iron (60,000 TPA) and Pig Iron (36,000 TPA) and Captive Power Plant (8 MW)] at Bhumri, Singhbhum East, Jharkhand. Total land required for the plant is 33 Acres. Dholadih P.F., Morchgora Kudada P.F., Nundup P.F., Jojodih P.F., and Tiring P.F. are situated within 15 Km periphery of the plant. Gara River (3.5 Km, SE) and Bhangabanga nadi (7 Km, NW) are located. Orissa state boundary is also within 15 Km periphery of the plant. The products and production capacity of the plant will be Sponge Iron (60,000 TPA) and Pig Iron (36,000 TPA). Capacity of captive power plant [WHRB (4 MW) and AFBC (4 MW)] will be 8 MW. The coal based rotary kiln-DRI process will be used for production of sponge iron and Mini blast furnace technology will be used for production of Pig iron. Iron ore (96,000 TPA), Non-coking coal (78,000 TPA) and Dolomite/Limestone will be required as raw materials for Sponge Iron plant. Iron ore, coke, Dolomite, Limestone, Dolomite, Manganese and Quartzite will be required as raw materials for Pig iron (Blast Furnace). Total cost of project is Rs. 80.17 Crores.

3. It is noted that total ground water requirement will be 1,020 m³/day and permission for drawl of 3600 m³/day has been obtained from Central Ground Water Authority, Ministry of Water Resources vide letter no. SSPL/GW/01/08-09 dated 8th November 2008. Ground water will be required for the cooling and domestic purposes. No industrial waste water will be generated. Rain water harvesting structure will be installed. About 13.6m³/d of waste water from the process and

5.5m³/d of waste water from the domestic source will be generated. The process waste water generated due to cooling tower and boiler blow down and DM regeneration back wash will be used for green belt after primary treatment. The domestic waste water will be disposed through septic tank/soak pit.

4. The dust emissions generated from the rotary kiln stack will be controlled by installing Electrostatic Precipitator (ESP) with stack height (40 m) to keep the particulate emission below 50 mg/Nm³. Fume extraction system attached with multi-cyclone air pollution control system or bag filter (house) system will be provided to Product house, Intermediate Bin, Cooler Discharge Circuit, Stock House, Coal Circuit, Coal Injector Area to curb the spreading of dust into atmosphere. Emissions from the mini blast furnace will be controlled by providing dust catcher, cyclone separator and bag filters. The clean gas from the bag filters will be used as fuel in the BF stoves. Water sprinkling will be done in loading/stocking area.

5. Dolochar generated from the sponge iron plant will be used as fuel mix AFBC boiler for power generation. Fly Ash will be used for brick manufacturing or provided to the cement plants. Dust from WHRB will be sent to landfill. Dust from bag filter will be used for land filling and partly in power plant. Accretions will be used for road making. Bottom ash from power plant will be used as coarse aggregate for fly ash brick/ for land filling. Slag generated from the pig iron plant will be granulated and sold to cement plants.

6. Green belt will be developed in 11.20 acres out of 33.0 acres. Power requirement will be met from captive generation/JSEB. DG sets (100KVA, 725KVA and 250KVA) will be installed for emergency purposes. Low noise generating equipments with vibration isolators will be installed. Ear muffs/ear plugs will be provided to workers in noise prone areas. Acoustic enclosures will be provided to DG sets. Regular lubrication and maintenance will be done to reduce noise generation.

7. The primary metallurgy industries are listed at S. N. 3 (a) of EIA Notification, 2006 and will be appraised at Central level.

8. The proposal was considered by the Expert Appraisal Committee -1 (Industry) in its meeting held on 17th -18th May, 2010, and recommended the proposal for environmental clearance. Public hearing / Public consultation meeting was held on 30.08.2009.

9. Based on the information submitted by you, presentation made by you and consultant, Eco Care, Asansol, West Bengal, 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), cyclone and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology. 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.

- ii) In plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials 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, stock house and other enclosed raw material handling areas. All the internal roads shall be asphalted. Fugitive emissions shall be regularly monitored and records maintained.
- iii) 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. Efforts shall also be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored and records kept.
- iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v) Secondary fugitive emissions from all the sources should be controlled as per Ministry vide G.S.R. 414(E) dated 30th May, 2008 within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.
- vi) 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.
- vii) The water consumption shall not exceed as per the standards prescribed for the steel plants.

- viii) Total ground water requirement shall not exceed 1,020 m³/day although permission for the drawl of 3,600 m³/day ground water is obtained from Central Ground Water Authority, Ministry of Water Resources vide letter no. SSPL/GW/01/08-09 dated 8th November 2008.
- ix) Zero effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- x) Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- xi) 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 Bhubaneswar, SPCB and CPCB.
- xii) 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 alongwith the DRI plant to ensure full utilization of char from the beginning. All the BF slag shall be properly utilized.
- xiii) Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2010. The fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional office at Bhubaneswar.
- xiv) Permission/ recommendations 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. Dholadih P.F., Morchgora Kudada P.F., Nundup P.F., Jojodih P.F., and Tiring P.F. located within 10 km radius of the project. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department should be prepared and implemented.
- xv) Recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.

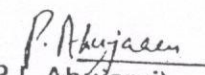
- xvi) All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 14th March, 2009 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.
- xvii) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details alongwith 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.
- xviii) Risk and Disaster Management Plan alongwith the mitigation measures shall 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 letter.
- xix) As proposed, green belt shall be developed in 11.20 acres out of total 33 acres within and around the plant premises to mitigate the effects of air emissions as per the CPCB guidelines in consultation with DFO.
- xx) 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/VEMP 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. 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.
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, 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. Secretary, Department of Forest, Govt. of Jharkhand, Nepal House, Ranchi.
2. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office, (EZ) A-3, Chandrashekharapur, Bhubaneswar-715023.
3. Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
4. Chairman, Jharkhand State Pollution Control Board, T.A Division Building (Ground Floor) HEC Campus, Dhurwa, Ranchi -834004.
5. 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'