

F. No. J-11011/84/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: 23rd May, 2011

To,

The Managing Director,
M/s Shiva Cement Limited
P-25, Civil Township,
Rourkela - 769 064, Orissa

Fax: 033 - 40074010

E-mail: shivacem@dataone.in

Sub: Expansion of Steel Plant at Village Telighana, Tehsil Rajgangpur, District Sundergarh in Orissa by M/s Shiva Cement Limited- regarding Environmental Clearance

Sir,

This has reference to your letter no. Expansion/ MoEF/5 dated 14.02.2011 and subsequent communication dated 22.02.2011 along with copies of EIA/EMP and public hearing reports seeking environmental clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined your application. It is noted that M/s Shiva Cement Limited have proposed for expansion of Cement Plant (Clinker – from 0.115 MTPA to 0.825 MTPA and Cement - from 0.132 MTPA to 1.05 MTPA) at Village Telighana, Tehsil Rajgangpur, District Sundergarh in Orissa. Existing plant is spread over 45.16 acres of land area. The proposed expansion requires an additional area of 25.69 acres. The total land area for the project is 70.85 acres. The Govt. of Orissa has already allotted 25.69 acres of land to M/s SCL through the Nodal Agency i.e. IDCO. Green belt has been developed in an area of 6.45 acres. Additional area of 25.42 acres will be brought under green belt. The study area comprises Protected forest and Reserve forests like Udarama R.F, Khatang R.F, Rajabasa R.F, Mahabir R.F, Mundalasa R.F, Luhuraberni R.F, Dahijira R.F, Amirchua R.F, Panchra R.F, Lampi R.F, Bangala Paharh R.F & Mahalmunda R.F. Flora & fauna study has been carried out in the core and buffer zone separately. There are no endangered & endemic flora and fauna species in the study area. There is no wildlife sanctuary or national park and elephant corridor in the study area. Total estimated cost of the project is Rs 400.00 Crores and Rs. 20.10 Crores & Rs. 5.22 Crores will be earmarked towards capital cost & recurring cost/annum for environmental pollution control measures.

3. It is noted that the proposed plant will be provided with necessary air pollution control devices like Electrostatic Precipitators (ESP), bag filters, dust catchers, etc. to control dust and limit emissions within the prescribed standards. The gases emissions will be dispersed through stacks.

4. The existing plant including colony requires about 100 m³/day of water which is met from the existing three tube wells. Proposed expansion requires additional 600 m³/day of water. In total, the water demand will be 700m³/ day after expansion which will be met from the ground water source. The permission for withdrawal of 750 m³/day of ground water has been obtained. The wastewater treatment and management plan is developed with zero discharge concept.

5. The project is based on dry process of cement production. With the bag filter and other effective pollution control measures, the dust generated will be re-used in the process in different stages. The solid waste generated from the Sewage Treatment Plant will be used for green belt development. The existing power requirement is 3.5 MVA and an additional power of 16.5 MVA is required for the proposed expansion. The power will be sourced from the State Electricity Board. DG sets of 3.67 MVA will be used as power back up.

6. The cement plants (≥ 1.0 MTPA) have been kept at S.No. 3(b) under category 'A' of the Schedule of EIA Notification 2006 and appraised at the Central level.

7. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 19th meeting held during 22nd - 23rd February, 2011. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing for the project was held on 5.10.2010.

8. Based on the information submitted by you, presentation made by you and consultant, M/s *S.S Environics (I) 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. Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, particulate emissions shall be controlled within 50 mg/Nm³ by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill.
- ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report should be prepared and submitted to the Ministry and its Regional Office at Bhubaneswar within 3 months from the date of issue of the letter.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be followed.
- iv. Secondary fugitive emissions should be controlled and maintained within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed.

- v. Efforts shall 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 should not be overloaded. The company should have separate truck parking area. Vehicular emissions should be regularly monitored.
- vi. Total water requirement should not exceed 700m³/day. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.
- vii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water should 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 should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- ix. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries should be sold to authorized recyclers / reprocessors only.
- x. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xi. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.
- xii. As proposed, green belt should be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xiii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.
- xiv. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 5th October, 2010 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.

- xv. At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment based on Public Hearing & 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.
- xvi. 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.
- xvii. The company shall adopt well laid down corporate environment policy and identified and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with environmental clearance, environmental laws and regulations.

B. GENERAL CONDITIONS:

- i. The project authority shall adhere to the stipulations made by Orissa Environment Conservation Board (OECB) and State Government.
- ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
- iii. At least four ambient air quality monitoring stations shall be established in the down wind 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 emissions shall be regularly submitted to this Ministry including its Regional Office and SPCB / CPCB once in six months.
- iv. Industrial wastewater shall be properly collected and 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.
- v. 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 Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme shall include lung function and sputum analysis tests once

in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.

- vii. The company shall undertake eco-development measures including community welfare measures in the project area.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP.
- ix. A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- x. Adequate funds shall be allocated to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.
- xi. The Regional Office of this Ministry / CPCB / ASPCB shall monitor the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.
- xii. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the CECB.
- xiii. The 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.
- xiv. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear pluggs/ muffs.
- xv. Industrial waste water (workshop and waste water from the mine) 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. Oil and grease trap shall be installed before discharge of workshop effluents.
- xvi. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the

workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

- xvii. The project authorities shall inform to the Regional Office located regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
 - xviii. A copy of clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom suggestion/representation, if any, was received while processing the proposal.
 - xix. 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 put up on the website of the Company by the proponent.
 - xx. The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the Orissa Environment Conservation Board and also at web site of the Ministry of Environment and Forests at "<http://envfor.nic.in> and a copy of the same shall be forwarded to the Regional Office of this Ministry.
 - xxi. 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 EC conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.
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) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules

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

Copy to:-

1. The Secretary, State Department of Environment, Govt. of Orissa, Bhubaneswar, Orissa.
2. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. Chairman, Orissa Bengal Pollution Control Board, Parivesh Bhawan, A/118, Neelkanthhanagar, Unit-8, Bhubaneswar - 751 012, Orissa.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar - 751 023, Orissa.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Guard File / Record File.

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Scientist -F

