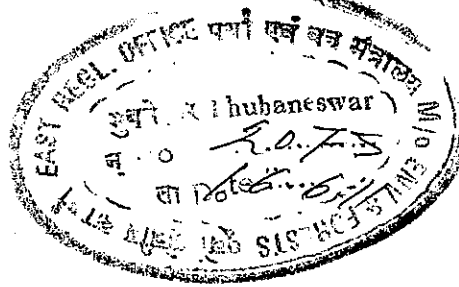


**F. No. J-11011/17/2010-IA II (I)**  
**Government of India**  
**Ministry of Environment and Forests**  
**(I.A. Division)**

Paryavaran Bhawan  
 CGO Complex, Lodhi Road  
 New Delhi - 110 003.  
 E-mail: [plahujarai@yahoo.com](mailto:plahujarai@yahoo.com)  
 Tele/fax: 011-24363973  
 Dated: 17<sup>th</sup> January, 2011

To,

The Sr. Vice President (Works)  
 M/s Ramco Industries Ltd  
 Auras Corporate Centre, VI Floor,  
 98A, Dr. Radhakrishnan Road  
 Post Box No. 2949, Mylapore,  
 Chennai-600 004.



**Sub: Asbestos Fiber Cement Sheet Plant (1,20,000 TPA) at Plot No. A1, Industrial Area, Village & Taluk Bihiya, District Bhojpur, Bihar by M/s Ramco Industries Limited – regarding Environmental Clearance**

Sir,

This has reference to your letter no. nil dated 29<sup>th</sup> November, 2010 along with copies of final EIA / EMP and public hearing reports 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 Ramco Industries Ltd. have proposed for the Asbestos Fibre Cement Sheet Plant (1,20,000 TPA) at Village & Taluk Bihiya, District Bhojpur, Bihar. Total land available is 20.0 acres which has been allotted by the Bihar Industrial Area Development Authority (BIADA), Patna. Out of 20 acres of total land, green belt will be developed in 8 acres i.e. 40 % of total plant area. No rehabilitation and resettlement is involved. No national parks/wild life sanctuary/reserve forests are located within 10 km radius. No forest land is involved. Raw asbestos fiber (10,200 TPA), Cement (54,000 TPA), Fly Ash (31,800 TPA) and Paper pulp (600 TPA) will be used as raw materials. Raw material will be transported by covered trucks. Chrysotile Asbestos fibre received in the polythene bags will be mechanically opened in an automatic bag opening device. Total cost of the project is Rs. 30.0 Crores. Rs. 50.0 Lakhs and Rs 10.0 Lakhs are earmarked towards capital cost and recurring cost/annum for environmental pollution control measures. Rs. 1.5 Crores is allocated towards Corporate Social Responsibility (CSR) activities.

3. It is noted that water requirement of 80 m<sup>3</sup>/day will be sourced from own bore wells. Permission for ground water withdrawal from Directorate of Under ground Water Resources, Bihar, has been obtained on 22.02.2010. No wastewater will be generated from process. The settling solids in slurry form the recuperating tank will be collected in a clarifier and reused in the process. Service water will be passed through oil separator to remove oil content in the effluent. Domestic effluent will be

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treated in septic tank followed by dispersion in underground strata through dispersion trenches. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. Acoustic enclosures will be provided to D.G. sets. 750 KVA of Power will be required for the project and sourced from BSEB Grid. However, to meet the emergency power requirement during the grid failure, a diesel generator with capacity of 750 KVA will be installed.

4. All the solid waste generated will be recycled in the manufacturing process. HDPE fiber bags will be shredded in the shredder unit attached to the bag opening device and sent along with the fiber into fiber mill through conveyor.

5. The Asbestos Fibre Sheet Manufacturing Cement Plants have been listed at Sl. No. 4(c) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised by the Expert Appraisal Committee in the Ministry.

6. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 17<sup>th</sup> meeting held during 13<sup>th</sup> & 14<sup>th</sup>, 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 22.11.2010.

7. Based on the information submitted by you, presentation made by you and consultant, M/s Vimta Labs, Hyderabad, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS :**

- i. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in impermeable bags and under compressed condition.
- ii. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.
- iii. There shall be no manual handling/opening of asbestos fiber bags. The company shall install fully automatic asbestos fiber debagging system before commissioning the unit.
- iv. Fugitive emissions shall be controlled by bringing cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle it into the process. Fugitive

emissions generated from hopper of Jaw crusher and Pulverizer shall be channelized through hood with proper suction arrangement, bag filter and stack.

- v. The Company shall comply with total dust emission limit of  $2 \text{ mg/Nm}^3$  as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
- vi. Bags containing asbestos fibre shall be stored in enclosed area to avoid fugitive emissions of asbestos fibre from damaged bags, if any.
- vii. Proper house keeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better house keeping practices shall be adopted for improvement of the environment within the work environment also. These include:
  - (a) All monitoring transfer points shall be connected to dust extraction system.
  - (b) Leakages or dust from machines and ducts shall be plugged.
  - (c) Floor shall be cleaned by vacuum cleaner only.
  - (d) Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises.
- viii. Quarterly monitoring of pollutant ( $\text{PM}_{10}$ , asbestos fibre count) in the work zone area and stack(s) shall be undertaken by the Project proponents. In addition, the asbestos fibre count in the work zone area shall be monitored by an Independent monitoring agency like NIOH / ITRC / NCB or any other approved agency and reports submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- ix. Total water requirement from ground water shall not exceed  $80 \text{ m}^3/\text{day}$ . All the recommendations of the State Ground Water Department, Govt. of Bihar shall be implemented in time bound manner.
- x. After the 5 years operation of plant, no ground water shall be used and only rain water shall be used.
- xi. As reflected in the Environmental Management Plan, all the treated effluent shall be recycled and reused in the manufacturing process. No process water shall be discharged outside the premises and 'zero' discharge shall be maintained. All the domestic wastewater shall be treated in septic tank followed by soak pit and used for green belt development.
- xii. The Company shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. Process sludge shall be 100% recycled and reused in the process. Hazardous waste shall be ground in

dust proof pulverizer with integrated bag filter and recycled back to the process. Asbestos fibres which can not be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.

- xiii. The cut and damaged fibre bags shall immediately be repaired. Empty fibre bags will be shredded into fine particles in a bag shredder and recycled into the process. Piling of AC sheets shall be done in wet condition only.
- xiv. The Company shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment and Forests.
- xv. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for sugar and albumen, blood tests for TLC, DLC, ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court.
- xvi. To educate the workers, all the work places where asbestos dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- xvii. The company shall also undertake rain water harvesting measures and plan of action shall be submitted to the Ministry of Environment and Forests within three months.
- xviii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 22<sup>nd</sup> November 2010 shall 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.
- xix. Green belt shall be developed in at least 33 % of plant area as per the CPCB guidelines in consultation with the DFO.
- xx. 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.

- xxi. 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 Bihar 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 19<sup>th</sup> 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 PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> 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 19<sup>th</sup> May, 1993 and 31<sup>st</sup> 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 shall 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 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 SPCB. The criteria pollutant levels namely; PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub>, (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 31<sup>st</sup> 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>.

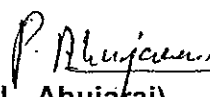
This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office 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.
8. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
9. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10. 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. Ahujarai)  
Scientist 'F'

**Copy to:**

1. Secretary, State Department of Environment, Government of Bihar, Mantralaya, Patna.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Bihar State Pollution Control Board, Beltron Bhavan, 2<sup>nd</sup> Floor, Lal Bahadur Shastri Nagar, Patna- 800023
4. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests -A-3, Chandrashekharpur, Bhubaneswar ? 751 023, Orissa
5. Additional Director, Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
6. Guard file.
7. Record file.
8. Monitoring file.

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