

F. No. J-11011/22/2011-IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003

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Dated: 10th May, 2013

To

The Sr. General Manager
M/s Ramco Industries Limited
Village Dewanmaro Ayma,
Block Kharagpur (Local),
District West Medinipur-721301
West Bengal,

Email : vsk@ril.co.in; Fax No. 03222 - 233256

Subject: Expansion of Fibre Cement Sheet manufacturing plant at Village Dewanmaro Ayma, Block Kharagpur (Local), District West Medinipur, West Bengal by **M/s Ramco Industries Limited - regarding Environmental Clearance**

Sir,

This has reference to your letter no. Nil dated 7.11.2012 along with copies 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. Ramco Industries Limited have proposed to expand the Asbestos Fibre Cement Sheet Plant located at Dewanmaro Ayma village, PO- Hariatara, P.S.- Kharagpur (Local), West Medinipur District, West Bengal from the existing production capacity of 72,000 TPA to 1,00,000 TPA. The proposed expansion will be carried out within the existing plant area of 12.65 acres (5.06 ha) itself and no additional land is required for the expansion project. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. The water bodies located in the study area are rivers (Kaliaghai and Cossye). Rs. 10 Lakhs is earmarked towards to upgrade the efficiency of dust collecting system in fibre mill, fly ash/cement circuit and pulverizer plant dust collectors. Rs.7 lakhs has been earmarked towards the CSR related activities. In the existing plant, green belt is developed in an area of 7.65 acres, which is about 60% of the total area of the plant.

3. It is noted that the proposed expansion of the plant will be achieved by optimization of production by removing the existing bottlenecks, increasing the speed of the equipment to the maximum extent possible through Variable Frequency Drive (VFD) and utilizing the maximum production hours available. There will not be any new machinery and change in the process technology. The total raw materials requirement after the proposed expansion are Asbestos Fibre – 745 Tons Per Month (TPM), Cement – 4200 TPM, Fly ash – 2400 TPM and Pulp – 45 TPM. The power requirement for the proposed expansion is 700 KVA, which will be met from the State Electricity Board.

4. It is noted that to control the air emissions automatic bag open device followed by shredder for fibre handling and pneumatic bulk handling system for cement and fly ash will be provided. High efficiency pulsejet type bag filters for Fibre circuit, cement & fly ash circuit and solid waste management device – pulverizer, bin filter for cement silo and fly ash silo will be provided to limit the particulate matter emissions. Adequate stack height will be provided for wider dispersion of emissions. Further, bag filters will also be provided with appropriate suction devices to control the fugitive emissions. Water spraying arrangements will be made, particularly raw material storage area, wagon tippler and truck tippler. The usage of respiratory protective equipment by all employees will be ensured and the fugitive emission level is monitored as per the CPCB guidelines.

5. The existing water requirement is 100 m³/day and no additional water will be required for the proposed expansion. The water used in the milling section, cement/fly ash section and slurry mixer comes along with the slurry, from which, the vacuum system sucks the water. The sucked water is then pumped to the water tanks, which will be reused in the process operations. No wastewater will be discharged outside the plant premises as the entire wastewater is reused in the process itself.

6. Discarded fibre cement sheets and other solid wastes (500 TPA) will be pulverized and reused in process. The dust from dust collector (8.50 TPA) and used oil (1100 LPA) will be recycled. There will be no solid waste disposal outside the plant premises.

7. All the Asbestos milling and asbestos based products have been listed at Sl. No. 4(c) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised at the Central level.

8. The proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 5th meeting held during 31st January, 2013 to 1st February, 2013. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public Hearing / Public Consultation meeting conducted by the West Bengal Pollution Control Board on 5.10.2012.

9. Based on the information submitted by you, presentation made by you and your 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 14th 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 fibre bags. The company shall install fully automatic asbestos fibre debagging system.

- 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 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 housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping 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 (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 including the fugitive dust in the work zone area shall be monitored by an Independent monitoring agency like NIOH / ITRC / NCB or any other approved agency on six monthly basis and reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- ix. 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.
- x. 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. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot 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.
- xi. The cut and damaged fibre bags shall be repaired immediately. 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.

- xii. 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.
- xiii. 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 including the recent Kalyaneswari case.
- xiv. 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.
- xv. The company shall also undertake rain water harvesting measures and plan of action shall be submitted to the Ministry's Regional Office at Bhubaneswar within three months.
- xvi. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 5th October, 2012 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.
- xvii. Green belt shall be developed in at least 33 % of plant area as per the CPCB guidelines in consultation with the DFO. More focus shall be given towards the South East side of the plant layout.
- xviii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues 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.
- xix. 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 West Bengal 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. 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.

- iv. 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.
- 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. 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.
- ix. Requisite funds 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.
- x. 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.
- xi. 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; 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.
- xii. 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.

- xiii. 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 along with 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.
 - xiv. 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.
 - xv. 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.
10. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
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.V.P.Upadhyay)
Director(S)

Copy to:-

1. The Secretary, Department of Environment, Govt. of West Bengal.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Chairman, West Bengal Pollution Control Board, Paribesh Bhawan, Bldg. No. 10-A, Block- LA, Sector 3, Salt Lake City, Kolkata – 700 091
4. The Additional Principal Chief Conservator of Forests (Central), Regional Office (EZ), Ministry of Environment & Forests, A/3, Chandesekharpur, Bhubaneswar – 751023.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File / Record File/Monitoring file.

(Dr.V.P.Upadhyay)
Director(S)

No. J-11011/53/2003 - IA II (I)
Government of India
Ministry of Environment & Forests

Email: gvs@menf.delhi.nic.in

Tel No.2 436 4594
Paryavaran Bhawan, CGO Complex,
Lodi Road, New Delhi - 110 003
Dated the May 12, 2003

To

✓ The President,
M/s Ramco Industries Limited
Auras corporate Centre, VI floor,
98-A, Dr. Radhakrishnan Road,
P.B. No.2949, Mylapore
Chennai-600004

Subject: Manufacturing of asbestos cement sheets and accessories at village Dewanamara aima Mouza, Hariatara G.P. , Khargapur- 1 Block, District Medinipur in West Bengal by M/s Ramco Industries Limited.

Sir,

This has reference to your letter no. W.B dated 9th April, 2003 seeking environmental clearance for the above project along with EIA/EMP report, NOC, public hearing and CD on the above proposal.

Ministry of Environment & Forests has examined the application. It is noted that the proposal envisages manufacture of 72,000 TPA asbestos cement sheets and accessories. The company has acquired 12.65 acres of land. The project does not involve displacement/rehabilitation of people. The water requirement of 100m³/d will be met from the ground water. There will be no generation of solid waste. The process rejects, dust from bag filters and shredded asbestos bags will be pulverized and the entire waste material will be reused in the manufacturing process. The wet sludge would be recycled. NOC from West Bengal Pollution Control Board was obtained on 28th December, 2002. The Public Hearing Panel has considered the case in the meeting held on 25th February, 2003. Total cost of the project is Rs.12.00 crores.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above unit under the EIA Notification, 1994 as amended subsequently subject to the compliance of the terms and conditions mentioned below:

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 should be transported in closed containers. Asbestos fibre should be brought in palletized form, in impermeable bags and under compressed condition.

- ii. Blue asbestos should not be utilized as a raw material in the manufacturing process. A written commitment in this regard should be furnished within a period of one month.
- iii. There should be no manual handling /opening of asbestos fiber bags. The company should install fully automatic asbestos fiber debagging system before commissioning the unit.
- iv. The company shall comply with total dust emission limit of $2\text{mg}/\text{Nm}^3$ as notified under the Environment (Protection) Act, 1986. Adequate measures should be adopted to control the process emission and ensure that the stack emission of asbestos fibre should not exceed the emission limit of $0.2\text{ fibre}/\text{cc}$. Further, in the work zone area the fibre count should not exceed $0.5\text{ fibre}/\text{cc}$. This level should be further brought down to $0.1\text{ fibre}/\text{cc}$ by 1st January, 2004.
- v. The air pollution control measures such as bag filters should be interlocked with the manufacturing process. In the event of failure of any pollution control system, the unit should be put out of operation immediately and should not be restarted until the control system is rectified to achieve the desired efficiency.
- vi. Bags containing asbestos fibre should be stored in enclosed area to avoid fugitive emission of asbestos fibre from damaged bags, if any.
- vii. Regular measurement of pollutants (SPM, asbestos fibre count) in the work zone area and stack (s) should be undertaken by setting up a dedicated laboratory. In addition, the asbestos fibre count in the work zone area should be got monitored by an Independent Monitoring Agency like NIOH, ITRC/NCB etc on a six- monthly basis. The monitored data should be submitted to the SPCB once in three months and to this Ministry every six months.
- viii. As reflected in the EMP, there will be no discharge of process effluent. The entire process effluent should be reused/recycled in the manufacturing process. The domestic wastes should be adequately treated in a sewage treatment plant and used for green belt development.
- ix. The company shall ensure that the entire solid waste generated including process rejects, dust from bag filters and empty asbestos bag should be recycled in the manufacturing process. The disposal facilities for asbestos waste should be in accordance with the Bureau of Indian Standard Code.
- x. Regular medical examination of workers and health monitoring of the employees should be carried out and record maintained. A competent occupational health physician should be appointed to carry out medical surveillance. The occupational health monitoring must be strengthened to include periodic (six months) sputum test along with pulmonary test supplemented by X-Ray test annually. The company should also provide medical and health care facilities at the work place and if cases of asbestosis are detected, necessary compensation should be arranged under the existing laws.

- xi. To educate the workers, all the work places where asbestos dust may cause a hazard should be clearly indicated as an dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- xii. The company should also undertake water-harvesting measures and plan of action should be submitted to MOEF within three months.
- xiii. As reflected in the EMP, 7.65 acres of the project area should be developed as green belt with local species in consultation with DFO as per CPCB guidelines.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the West Bengal State Pollution Control Board and the State Government.
- ii. No further expansion/ modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
- iii. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2000.
- iv. The project proponent shall also comply with all the recommendations made by the Public Hearing Panel and safeguards recommended in the EIA /EMP Report.
- v. The project authorities will set-up a separate environmental management cell for effective implementation of all the above stipulations under control of Sr. Executive.
- vi. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.
- vii. The Regional Office of this Ministry at Bhubaneswar/ Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance status report and the monitored data along with statistical interpretation should be submitted to them regularly.
- viii. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should 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.

- ix. The Project Authorities should 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, if any.

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

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

5.0. The above conditions will 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, 2000 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

G. v. Subrahmanyam

(Dr. G.V. Subrahmanyam)
Director

Copy to:-

1. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
2. The Chairman, West Bengal Pollution Control Board, Parivesh Bhawan, 10A Block-LA Sector-III, Salt Lake, Calcutta- 700091.
3. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests A-3 Chandrashekharapur, Bhubaneshwar - 751 023
4. The Secretary, State Department of Environment, Govt. of West Bengal, Kolkata.
5. The Sr. Adviser (EI division), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Director, Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File.
8. Monitoring File.
9. Record File.

G. v. Subrahmanyam

(Dr. G.V. Subrahmanyam)
Director