

F. No. J-11011/754/2007- 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 : pb.rastogi@nic.in
Telefax : 011: 2436 7668
Dated 28th October, 2009

To,
M/s Star Cement Meghalaya Ltd.
Village Lumshnong, Taluka Khliehriat
District Jaintia Hills
Meghalaya

E-mail : jaikumar@cmcl.co.in / lumshnong@cmcl.co.in ; Fax No.: 011-27033824 ;

Subject : Cement Clinker Unit (1.75 Million TPA) and Captive Power Plant (30 MW) at Village Lumshnong, Taluka Khliehriat, District Jaintia Hills, Meghalaya by M/s Star Cement Meghalaya Ltd. – Environment clearance reg.

Ref. : Your letter no. SCML/ MOEF/2407/2009-10 dated 24th July, 2009.

Sir,

This has reference to your letter no. /SCML/MOEF/2407/2009-10 dated 24th July, 2009 alongwith project documents including Form I, draft Terms of References, EIA/EMP Report, Public Hearing Report and other documents regarding the above mentioned cement project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for the Cement Clinker Unit (1.75 Million TPA) and Captive Power Plant (30 MW) at Village Lumshnong, Taluka Khliehriat, District Jaintia Hills, Meghalaya by M/s Star Cement Meghalaya Ltd. Total land acquired for the project is 75 ha. No R & R is involved. Narpuh RF is at a distance of 7.0 km from the proposed site. Total cost of the project is Rs. 665.81 Crores.

3.0 State-of-the-art pre-calciner technology will be adopted for manufacture of clinker. Cement manufacturing process will involve limestone crushing, raw material grinding and blending, coal grinding and fine coal handling, preheating of coal in six stage pre-calciner string, clinkerization in the kiln, clinker cooler and storage. Circulating Fluidized Bed Combustion (CFBC) technology will be used for Captive Power Plant (CPP). Location of the crusher will be in the outskirts of limestone mine area. Maximum lime will be taken from captive limestone mine, for which prospecting license over an area of 427 ha at Brishyrnot Village, Jaintia Hills, District Meghalaya has already been granted by the Government of Meghalaya vide letter no. MG.8/2008/33 dated 9th September, 2009. Lime stone, shale, mill scale, coal for clinker plant and bamboo chips and/or coal in CPP will be used as raw materials.

4.0 Electrostatic precipitator (ESP), bag house/filters, dust suppression system with water sprinklers will be provided to control emissions within the permissible limits. Conveyor belts will be installed instead of transportation of lime by trucks. Total water requirement from Umtyrgrnai, p

O.K. Email sent to the road room 28.10.09 at 5:58 PM

JC

Manoj
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Ummutha, Umlunar streams will be 4,916 m³/day and 'No Objection Certificate' to draw 4,900 m³/day water from Umtyrngnai, Ummutha streams and bore wells is obtained from the Department of Irrigation, Government of Meghalaya vide letter no. AID (J)223/2008-09 dated 16th June, 2009. All the treated effluent will be utilized for cooling, dust suppression and green belt development. Dust generated from the process will be recycled. Fly ash and bottom ash will be utilized for manufacturing cement (PPC). Green belt will be developed in 25 ha area, out of a total plant area of 75 ha.

5.0 Public Hearing / Public Consultation meeting was held on 8th May, 2009.

6.0. 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 to 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, limit of SPM shall be controlled within 50 mg/Nm³ by installing adequate air pollution control system. Electrostatic precipitators (ESPs) shall be provided to clinker cooler and captive power plant (CPP). Bag house/filters shall be provided to raw mill/kiln, cement mill and coal mill. Adequate chimney height as per CPCB guidelines shall be provided to AFBC boiler to control emissions. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit is shut down automatically.
- ii. An action plan shall be prepared and submitted to the Ministry's Regional Office at Shillong for the control of SO₂ emissions from the captive power plant.
- iii. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points. Bag filters shall be installed at all material transfer points, material conveying points, cement silo, limestone and corrective crushing areas and packing area to control fugitive emissions. Dust suppression system with water sprinklers shall be provided in raw material unloading/storage areas to control fugitive dust emissions. Roads shall be asphalted. The material shall be transported in covered chutes or trucks. On-line dust monitor shall be provided.
- iv. Data on ambient air quality, stack emissions and fugitive emissions shall be uploaded on the Company's website and also regularly submitted on-line to the Ministry's Regional Office at Shillong, Meghalaya Pollution Control Board (MPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO₂ and NO_x shall also be displayed prominently outside the premises at the appropriate place for the information of general public.
- v. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.
- vi. 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 shall not be overloaded. Vehicular emissions shall be regularly monitored.


- vii. Total water requirement for cement plant from from Umtyrgnai, Ummutha streams and bore wells shall not exceed 4,900 m³/day as per the permission accorded by the Department of Irrigation, Government of Meghalaya vide letter no. AID (J)223/2008-09 dated 16th June, 2009. No ground water shall be used. Rejects of the water treatment plant shall be neutralized and boiler blow down shall be stored in common drain pit to cool naturally. Industrial effluent from captive power plant (CPP) shall be treated in effluent treatment plant (ETP) All the treated wastewater shall be recycled and reused in the process and/or for cooling, dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises into any stream/river and 'zero' discharge shall be adopted. Domestic treated water shall be treated in sewage treatment plant (STP) and used for the green belt development.
- viii. Effluent treatment plant (ETP) shall be provided for workshop. Sewage treatment plant (STP) shall be installed for the treatment of sewage from the colony and treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and STP shall be segregated into bio-degradable and non-biodegradable. Bio-degradable waste shall be composted and non-biodegradable waste shall be land filled at identified sites.
- ix. All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Fly ash from CPP shall be collected through dense phase fly ash handling system to store fly ash in fly ash silo. Bottom ash shall be pneumatically stored in bed ash storage silos. Municipal Solid waste from plant and colony shall be segregated and separated as combustible and non-combustible wastes. Combustible wastes alongwith spent oil shall be used as fuel in the kiln. Non-combustible wastes shall be land filled for composting and non-compostable waste and used batteries shall be sold to authorized recyclers/reprocessors only. STP sludge shall be used as manure for greenbelt development.
- x. All the fly ash shall be utilized as per Fly Ash Notification, 1999 subsequently amended in 2003. Efforts shall be made to use fly ash maximum in making Pozollona Portland Cement (PPC).
- xi. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xii. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.
- xiii. As proposed, green belt shall be developed in at least 25 ha (33 %) out of total 75 ha. in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xiv. Recommendation and permission of the State Forest Department regarding impact of proposed plant on surrounding Narpuh Reserve Forest shall be obtained and

implemented. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.

- xv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement Plants shall be implemented.
- 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. All the commitments made to the public during the public hearing/public consultation meeting held on 8th May, 2009 shall be satisfactorily implemented.

B. GENERAL CONDITIONS :

- i. The project authority must adhere to the stipulations made by Meghalaya State Pollution Control Board (MPCB) 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 downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the Meghalaya State Pollution Control Board. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office at Shillong and Meghalaya Pollution Control Board once in six months.
- iv. Industrial waste water 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 house keeping and adequate occupational health programmes must be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained. The programme must include lung function and sputum analysis tests once in six months.
- vii. The company shall harvest the rainwater from the roof tops and storm water drains to recharge the ground water.
- viii. The company shall undertake eco-development measures including community welfare measures in the project area. ✓

- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP.
- x. 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.
- xi. As proposed, Rs. 25.95 Crores and Rs. 1.50 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government and submit implementation schedule for all the conditions stipulated herein to the Regional Office of this Ministry at Shillong / Central Pollution Control Board / Meghalaya State Pollution Control Board. The funds so provided shall not be diverted for any other purposes.
- xii. 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.
- xiii. 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 Shillong, the respective Zonal Office of CPCB and the Meghalaya SPCB. The criteria pollutant levels namely; SPM, RSPM, 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.
- xiv. 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 Shillong / CPCB / Meghalaya SPCB shall monitor the stipulated conditions.
- xv. 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 Offices of the MOEF by e-mail.
- xvi. 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 Meghalaya 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 Shillong. 

xvii. Project authorities shall inform the Regional Office at Shillong 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.

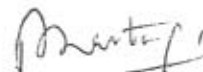
7.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

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

9.0 Any other conditions or alteration in the above conditions will have to be implemented by the project authorities in a time bound manner.

10.0 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.

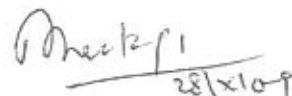
11.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules



(Dr. P. B. Rastogi)
Director

Copy to :-

1. Chairman, Meghalaya State Pollution Control Board, Arden, Phase-III, Lumpyhgngad, Shillong - 793 014, Meghalaya.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032.
3. Chief Conservator of Forests (Central), Ministry of Environment and Forests, (North-eastern Region, Upland Road, Laitumkhrah, Shillong - 793 003, Meghalaya.
4. Adviser IAll (I), Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Guard File.
7. Monitoring File.
8. Record File.



(Dr. P. B. Rastogi)
Director