
F. No. J-11011/82/2010- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: November 23rd, 2010

To,
The Advisor (MO),
M/s Madras Cements Limited
Auras Corporate Centre
V Floor, 98-A, Dr. Radhakrishnan Road,
Mylapore, Chennai 600004

Fax: 044-2847 8676 E-mail: ms@madrascements.co.in

Sub: Expansion of Cement Plant (Clinker from 1.55 MTPA to 3.25 MTPA; Cement from 3.00 MTPA to 5.50 MTPA along with Captive Power Plant from 18 MW to 60 MW) at Villages Govindapuram and Aminabad, Taluk & District Ariyalur in Tamil Nadu by M/s Madras Cements Limited - regarding environmental clearance

Sir,

This has reference to your letter no. nil dated 30th September, 2010 along with a copy of EIA/EMP and public hearing 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 Madras Cements Ltd. have proposed for the expansion of Cement Plant (Clinker from 1.55 MTPA to 3.25 MTPA; Cement from 3.00 MTPA to 5.50 MTPA along with Captive Power Plant from 18 MW to 60 MW) at Village Govindapuram and Aminabad, Taluk & District Ariyalur, Tamil Nadu. Environment clearance for the existing cement plant (3.0 MTPA) along with captive power plant (18 MW) was accorded by the Ministry vide letter No.J-11011/509/2006-IA(II)-I dated 24th August, 2007 and compliance report is submitted. TNPCB has accorded 'Consent to Operate' for the existing plant vide letter dated 15th May, 2009 and the plant is in operation except CPP (18 MW) which is yet to be installed. DG sets (14 MW) are installed for captive use. In addition to existing 81 ha, additional 69 ha land around the cement plant in Govindapuram and Aminabad Bit-I villages is purchased for the proposed expansion. Total land acquired is 150 ha. Green belt will be developed in 50 ha (33%) out of total 150 ha of plant area. No national park/wildlife sanctuary/bio-sphere reserved/reserved forests/hot spot/is located within 10 km radius. Total cost of the project is Rs. 650.0 Crores. Rs. 60.0 Crores and Rs. 2.0 Crores are earmarked towards capital cost and recurring cost/annum for environmental protection measures. Rs. 32.5 Crores and Rs. 1.0 Crores are earmarked towards capital cost and recurring cost/annum for corporate social responsibility.

3. Following are the details of the existing and proposed expansion of Clinker, Cement and Captive Power Plant (CPP).

Production	Source	Production Capacity (MTPA)		
		Existing	Addition on Expansion	Total
Clinker	Line- 1	1.55	-	3.25
	Line -II	-	1.70	
	Sister concern	0.45	-	0.45
	Total	2.00	1.70	3.70
Cement	Line – 1	3.00	-	5.50
	Line - 2	-	2.50	
	Total	3.00	2.50	5.50
Captive Power Plant	-	1 x18	60 MW (1x40 & 1x20) In place of 1x18 MW	60 MW

4. It is noted that limestone will be sourced from captive limestone mine in Ariyalur Region and have applied for the expansion of limestone mine. Imported coal from South Africa will be used in the kiln and the captive power plant. Dry process kiln with 5 stage suspension pre-heater and pre-calciner with suitable cooler will be used. Vertical Roller Mills (VRM) will be used for raw material grinding, cement grinding, coal/lignite grinding. AFBC boiler will be installed.

5. It is proposed to install efficient bag house to kiln raw mill, bag filter to coal mill, ESPs to clinker cooler and AFBC boiler, bag filters to cement mill to control PM within 50 mg/Nm³. For dispersion of gaseous emissions, 100 m high stack will be provided to boiler of 40 MW and 82 m high stack to boiler of 20 MW CPP. High efficiency reverse air jet type bag filter will be provided at material transfer points to control PM within 50 mg/Nm³. All stock points and conveyor belt will be covered with shed and all sides.

6. Total ground water requirement after the expansion will be 2500 m³/day which will be met from bore wells. Permission for the existing water requirement (1,500 m³/day) has been obtained from the State Ground Water Board vide letter dated 20th April, 2007 and 8th November, 2007. R.O. plant rejects, boiler blow down and cooling tower blow down will be treated in effluent treatment plant (ETP) and used for cooling purpose. The treated effluent will also be used for ash conditioning, dust suppression and green belt development. Sewage from the cement plant and township will be treated in sewage treatment plant (STP) and treated effluent will be used for green belt development. Service water will be passed through oil separator to remove oil content in the effluent. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. 2,995 m³/annum water will be collected through rain water harvesting for recharging. It is proposed to install air cooled condensers to minimize the water requirement.

~~7. The dust collected from air pollution control devices like bag house/filters, ESPs etc. will be totally recycled in the process for cement manufacturing. Fly ash from power plant (90 TPD) will be used in Pozzolona Portland Cement (PPC) manufacturing. Solid waste from STP will be vermi-composted and used as manure~~

for the green belt development. Pet coke (100%) and other wastes like tyres, rice husk, groundnut shell, crude oil sludge etc. (20%) will be used in kiln, which are otherwise hazardous waste. Waste oil and used batteries will be sold to authorized recyclers/re-processors.

8. Total power requirement for the existing and proposed expansion is 30 MW and 25 MW respectively (total 55 MW). In lieu of earlier (1x18 MW), the proponent have proposed for CPP (60 MW; 1x40 MW & 1x20 MW). DG set (6 MW) will be installed in addition to the existing 14 MW.

9. The Cement Plants (1.0 MTPA) are listed at S.No. 3(b) under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

10. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 15th meeting held during 25th - 27th October, 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 14th September 2010.

11. Based on the information submitted by you, presentation made by you and consultant, M/s Environmental System Consultants, Chennai, 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, limit of PM 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. Low NO_x burners should be provided to control NO_x emissions.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iii. 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 should be followed.
- iv. 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 should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.

- v. Total water requirement for cement and captive power plant after expansion shall not exceed 2500 m³/day. Necessary permission from the competent authority for water drawl shall be obtained. 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.
- vi. 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.
- vii. 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 Environment (Protection) Act, 1986 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 Bangalore, SPCB and CPCB.
- viii. 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 shall be sold to authorized recyclers / reprocessors only.
- ix. All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended. Efforts should be made to use fly ash maximum in making Pozollona Portland Cement (PPC).
- 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 shall 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 14th September, 2010 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 Bangalore.

- xv. At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall 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.

B. GENERAL CONDITIONS:

- i. The project authority shall adhere to the stipulations made by SPCB and State Government.
 - ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
 - 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 SPCB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. 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.
 - iv. 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).
 - v. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
 - vi. All the environment management measures given in the EIA/EMP shall be implemented and complied with.
 - 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. Proper house keeping and adequate occupational health programmes shall be taken up as per the Factory Act.
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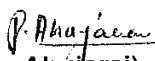
- ix. The company shall undertake eco-development measures including community welfare measures in the project area.
- x. A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- xi. The requisite funds shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- xii. 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.
- xiii. 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.
- xiv. 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, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; 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.
- xv. 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 respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore/CPCB/SPCB shall monitor the stipulated conditions.
- xvi. 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 Offices of the MOEF by e-mail.
- xvii. 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 the 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 shall be forwarded to the Regional office at Bangalore.

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

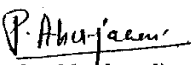
13. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

14. 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, 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 (Environment), Govt. of Tamilnadu, Fort. St. George, Chennai-600009.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Tamil Nadu Pollution Control Board, 100, Anna Salai, Guindy, Chennai - 600032.
4. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F Wings, 7th Main Road, IInd Block, Koramangala, Bangalore-560034.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File / Monitoring File / Record File.


(Dr. P. L. Ahujarai)
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