



भारत सरकार
पर्यावरण एवं वन मंत्रालय
Government of India
Ministry of Environment & Forests
(IA Division)

By speed post

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F. No. J-11011/1186/2007-IA-II(I)

Dated: September 22, 2008

To

M/S Bhavya Cement Limited
Village Tangeda, Taluk Gurjala,
Dachepally Mandal,
Guntur District, Andhra Pradesh

bhavyacements@yahoo.co.in

Sub: Cement Plant (4 MTPA), Captive power Plant (15 MW) and Lime Stone Mine (421.89 ha) at Village Tangeda, Taluk Gurjala, Dachepally Mandal, Guntur District, Andhra Pradesh by M/S Bhavya Cement Limited - Environmental Clearance reg.

Sir,

Kindly refer your letter no. nil dated 12th May 2008 alongwith EIA/EMP report for seeking environmental clearance under the EIA Notification, 2006 and subsequent communication vide your letter dated July 28, 2008.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that the proposal is for environment clearance for setting up of Cement Plant (4 MTPA), Captive power Plant (15 MW) and Lime Stone Mine (421.89 ha) at Village Tangeda, Taluk Gurjala, Dachepally Mandal, Guntur District, Andhra Pradesh by M/S Bhavya Cement Limited. The company has already acquired 487.04 ha of land for the proposed plant, out of which 84 Ha of the area will be earmarked for the green belt. Total cost of the project will be Rs. 415 Crores (Phase I) and Rs. 630 Crores (Phase II) & Rs. 10 Crores (Phase I) and Rs. 30 Crores (Phase II) have been earmarked towards the capital cost for environmental protection. Village Tangeda is located 1.2 km (NE) from the plant. No eco-sensitive areas are located within 15 km periphery of the plant. The product and production capacity of the plant are given below:

S.No	Name of Product	Proposed Capacity (TPD)
<i>Phase I</i>		
1	Clinker Production	3000
2	Cement (OPC/PPC)	4200
<i>Phase II</i>		
1	Clinker Production	5500
2	Cement (OPC/PPC)	7700
Power Plant		
1.	Captive Power Plant	15 MW
Limestone Mining		
1	Lease Area	421.89 ha

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3.0 The mining will be done with 9 m bench height, drill holes of 9.9 m depth, spacing of drills 6 m and power factor of 7.5 tonnes/kg. Bag house, ESP, bag filters followed by suitable high stacks will be installed at various sections for emissions control within 50 mg/Nm³. For fugitive dust control water spraying on the roads will be done within the premises. The total water requirement from Krishna river will be 2500 KLD. The wastewater from utilities (75 KLD) and domestic effluent (15 KLD) will be generation from the unit. The unit proposes to install an effluent treatment plant with a capacity of 75 KLD. The unit operations are Equalization/neutralization tank, clarifier, collection tank and sludge drying beds. The treated water will be used for on land irrigation. Domestic effluents will be sent to septic tank followed by soak pit.

4.0 Public hearing meeting was held on 30th April 2008.

5.0 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) The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Andhra Pradesh Pollution Control Board. At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill, cooler and captive power plant (CPP) shall not exceed 50 mg/Nm³. Continuous on-line monitors for particulate emissions shall be installed. 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 (s) is shut down automatically.
- (II) Secondary fugitive emissions shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at material transfer points. Atomized water spray system with reclaimers shall be installed in silo used for the storage of ash. Storage of other raw materials shall be in closed roof sheds. Covered conveyer belts shall be used to reduce fugitive emissions. Concreting of all the roads, water sprinkling system at limestone and coal handling area shall be ensured to reduce fugitive emissions.
- (III) Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality shall be carried out regularly in consultation with APPCB and data for air emissions shall be submitted to the CPCB and APPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.
- (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.
- (V) Fly ash shall be utilized as per the provisions of Fly Ash Notification, 1999, subsequently amended in 2003. Fly ash shall be stored in ash silo and 100% used in the cement manufacturing.
- (VI) The company shall make the efforts to utilize the high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly. The company shall keep the record of the waste utilized and shall submit the details to ministry's Regional Office at Bangalore, CPCB and SPCB.
- (VII) Total water requirement shall not exceed 2,500 m³/day from river Krishna and prior permission from the concerned State Authority shall be obtained. A copy of permission letter shall be submitted to Ministry's Regional Office at Bangalore. The treated wastewater from STP and utilities shall be reutilized for green belt development and other plant related activities i.e. cooling and dust suppression in raw material handling area etc. after necessary treatment. 'Zero' discharge shall be strictly adopted and no effluent from the process shall be discharged outside the premises.



- (VIII) Rainwater harvesting measures shall be adopted for the augmentation of ground water at cement plant, colony and mine site. Besides, company must also harvest the rainwater from the rooftops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water and reduce the water requirement pressure from the river. The Company shall construct the rain water harvesting and groundwater recharge structures outside the plant premises also in consultation with local Gram Panchayat and Village Heads to augment the ground water level. An action plan shall be submitted to Ministry's Regional Office at Bangalore within 3 months from date of issue of this letter
- (IX) The project proponent shall modify the mine plan of the project at the time of seeking approval for the next mining scheme from the Indian Bureau of Mines so as to reduce the area for external over burden dump by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed 28° .
- (X) Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
- (XI) The project proponent shall ensure that no natural water course shall be obstructed due to any mining and plant operations. The company shall make the plan for protection of the natural water course passing through the plant and mine area premises and submit to the ministry's Regional Office at Bangalore.
- (XII) The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and should not be kept active for long period. The total height of the dumps shall not exceed 30 m in three terraces of 10 m each and the over all slope of the dump shall be maintained to 28° . The inter burden dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Bangalore on six monthly bases.
- (XIII) The void left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation to be done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.
- (XIV) Catch drains and siltation ponds of appropriate size should be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.
- (XV) Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.
- (XVI) Dimension of the retaining wall at the toe of inter burden dumps and inter burden benches within the mine to check run-off and siltation should be based on the rain fall data.
- (XVII) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring should be four times a year- pre-monsoon (April / May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected shall be sent at regular intervals to



Ministry of Environment and Forests and its Regional Office at Bangalore, Central Ground Water Authority and Central Ground Water Board.

- (XVIII) Blasting operation should be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented.
- (XIX) The project proponent shall adopt wet drilling.
- (XX) As proposed, green belt should be developed in 33 % in and around the plant as per the CPCB guidelines.
- (XXI) The company shall take care of water supply of the village Tangeda and submit an action plan in this respect to the Ministry and its Regional Office at Bangalore.
- (XXII) All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) shall be strictly followed.
- (XXIII) Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.
- (XXIV) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bangalore.
- (XXV) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure, for approval.
- (XXVI) The company shall comply with all the commitments made during public on 30th April 2008.

B. General conditions:

- i. The project authority shall adhere to the stipulations made by State Pollution Control Board (SPCB) 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 SPM, 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 fund 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 / SPCB 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 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. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests. No change in the calendar plan including excavation, quantum of limestone and waste shall be made.
- xiv. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. should be provided with ear pluggs/ muffs.
- xv. Industrial waste water (workshop and waste water from the mine) should 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 should be installed before discharge of workshop effluents.
- xvi. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should 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 will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.
- xix. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.



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 State Pollution Control 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.

6.0 The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry.

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

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

9.0 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.


10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Enclosed: As above


(H.S. Malviya)
Joint Director

Copy to :-

1. The Secretary, Department of Environment and Forests, Govt. of A.P., Secretariat Hyderabad, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
3. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, A-3 Industrial Estate, Sanathnagar, Hyderabad- 500018, A.P.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F wings 17th Main Road, Koramangala II Block, Bangalore-560034, Karnataka.
5. Adviser IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
7. Guard File.
8. Monitoring File.
9. Record File.


(H.S. Malviya)
Joint Director