

F. No. J-11011/235/2008-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

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Dated: 5th September, 2016

To

✓ **M/s. Shree Cement Ltd.**
122-123, Hans Bhawan
1, Bahadur Shah Zafar Marg
New Delhi-110002.

Subject: Expansion of Integrated Cement Plant [Clinker (2 x 1.5 to 2 x 2.6 Million TPA), Cement (2 x 2.6 to 2 x 3.0 Million TPA), Waste Heat Recovery Power Plant (15 to 30 MW), Captive Thermal Power Plant (25 MW) along with Synthetic Gypsum Unit (65 TPH) and DG Sets (2000 KVA (size 1000/500/250/125)), by M/s. Shree Cement Limited, located near Village Khapradih, Tehsil Simga, District Balodabazar - Bhatapara (Chhattisgarh) – Environmental Clearance regarding.

Sir,

This has reference to your online application No. IA/CG/IND/26823/2015 Dated 7th May, 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The ToRs to the project were prescribed by MoEFCC vide letter No. F. No.J-11011/235/2008-IA-II(I) dated 26th May, 2015 for the preparation of EIA-EMP report. The proposed project activity is listed at S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2.0 M/s. Shree Cement Ltd. has proposed for expansion of integrated cement plant [Clinker (2 x 1.5 to 2 x 2.6 Million TPA), Cement (2 x 2.6 to 2 x 3.0 Million TPA), Waste Heat Recovery Power Plant (15 to 30 MW), Captive Thermal Power Plant (25 MW) along with Synthetic Gypsum Unit (65 TPH) and DG Sets (2000 KVA (4 x 250 KVA, 1 x 1000 KVA or 2 x 250, 1 x 500 KVA, 1 X 1000 KVA)]. The project is located near Village Khapradih, Tehsil Simga, District Balodabazar-Bhatapara, Chhattisgarh. The project was earlier accorded environmental clearance by the Ministry vide letter of even number dated 07.03.2011 for 2x1.5 MTPA clinker, 5.2 MTPA cement, 2x25 MW CPP and 4.8 MTPA limestone mining. The total plant area is 159.256 ha. Since, the proposed expansion will be done within the existing plant premises by internal modification; no additional land is therefore required for expansion. No forest land is involved. No River passes through the project area. The topography of the area is flat and reported to lies between 21° 35' 41.84" N to 21° 36' 29.06" N Latitude and 82° 02' 14.24" E to 82° 03' 06.17" E Longitude in Survey of India toposheet no. 64 G/14 and 64 K/2, at an elevation of 241 m to 319 m. The ground water table reported to ranges between 3.9 to 16 m during pre-monsoon period and 2.31 to

8.7 m during post monsoon period. The stage of ground water development is reported to be 86% and 30% in core and buffer zone respectively and thereby these are designated as safe.

S. No	Units	Existing Capacity	Total Capacity After Expansion
1	Clinker (MTPA)	2 x 1.5	2 x 2.6*
2	Cement (MTPA)	2 x 2.6	2 x 3.0
3	Captive Thermal Power Plant (MW)	50	25
4	Synthetic Gypsum (TPH)	Nil	65
5	Waste Heat Recovery Power Generation (MW)	15	30
6	D.G. Set (KVA)	Nil	2000 KVA [(4 x 250) + (1 x 1000) or (2 x 250) + (1 x 500) + (1 x 1000)]

Clinker will also be sent to the sister grinding units, market sale and will also receive from outside, if clinker unit is not in operation

3.0 No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve/ Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule- 1 Fauna. The Dhabadih Reserved Forest is reported to be located in the buffer zone at a distance of 4.0 km in ENE direction from the project site. No Schedule-I faunal species was recorded in the study area. No R&R is involved.

4.0 Limestone, gypsum, bauxite, iron ore and fly ash are the raw materials required for the cement plant. Indian and imported coal & pet coke will be used as fuel for cement plant and power generation. The raw materials required for the proposed expansion project are Limestone (8.32 MTPA), Iron ore/ Laterite (0.234 MTPA), Indian, Imported Synthetic and Chemical Gypsum(0.42 MTPA), Fly Ash (1.80 to 2.10 MTPA) and Slag (2.4 - 3.0 MTPA). The Limestone will be transported through covered conveyor belt and rest of the raw materials, fuel, clinker and cement will be transported through Road and Rail.

S. No.	Particulars	Details
	Raw Material Requirement	Total requirement after proposed expansion (MTPA)
	Raw Material	
1.	Limestone (Clinker Units and CPP)	8.32
2.	Iron ore / Laterite	0.234
3.	Indian, Imported, synthetic and chemical Gypsum	0.420
4.	Fly Ash	1.80 - 2.10
5.	Slag	2.4 - 3.0

5.0 The water requirement of the project is estimated at 3000 KLD including cement plant, CPP, WHRB, Synthetic Gypsum Plant, Colony and Mines, which will be sourced from Ground Water. The power requirement of the project is estimated as 62 MW, which will be

sourced from Captive Thermal Power Plant, Waste Heat Recovery Power Plant, Grid. The DG Sets will be used for power backup.

6.0 No solid waste will be generated from the cement manufacturing process. Dust collected from air pollution control equipments will be totally recycled back to the process. Fly ash generated from CPP will be utilized in manufacturing of cement. Solid waste in the form of sludge will be generated from the sewage treatment plant and same will be used as manure for greenbelt development/ plantation. Solid waste generated from colony will be disposed after segregating the waste into biodegradable and non-biodegradable. Out of the total plant area i.e. 159.256 ha, 52.55 ha (~ 33% of the total plant area) has been proposed to be developed under green belt.

7.0 The Public hearing of the project was held on 22nd January, 2016 under the Chairmanship of Upper Collector, District - Balodabazar - Bhatapara. The issues raised during public hearing were related to employment, water, environment, education, plantation, Entrepreneur Social Commitment (ESC), land etc. The capital cost of the proposed Expansion project is Rs. 1025.24 Crores and the capital cost for environmental protection measures is proposed as Rs. 51 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1 Crores/ annum. The proponent has mentioned that there is no court case to the project or related activity.

8.0 The proposal was considered by the Expert Appraisal Committee (Industry - 1) during its 7th meeting held on 30th May to 1st June, 2016 and recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

9.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant environmental clearance to the above mentioned expansion of Integrated Cement Plant [Clinker (2 x 1.5 to 2 x 2.6 Million TPA), Cement (2 x 2.6 to 2 x 3.0 Million TPA), Waste Heat Recovery Power Plant (15 to 30 MW), Captive Thermal Power Plant (25 MW) along with Synthetic Gypsum Unit (65 TPH) and DG Sets (2000 KVA (size 1000/500/250/125)] project of M/s Shree Cement Ltd., under the provision of EIA Notification dated 14th September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO₂ and NO_x shall be followed.
- iii. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control viz Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag

filters to coal mill and cement mill. Low NO_x burners shall be provided to control NO_x emissions. Regular calibration of the instruments must be ensured.

- iv. Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- v. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- vi. AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emissions well below prescribed standards.
- vii. 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.
- viii. A statement on carbon budgeting including the quantum of equivalent CO₂ being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year.
- ix. For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc
- x. Arsenic and Mercury shall be monitored in emissions, ambient air and water.
- xi. The coal yard shall be lined and covered.
- xii. The project proponent shall prepare a report on impact of project on surrounding reserve forests within six months and will get it approved from the State Forest Department. A copy of the same should be submitted to the Ministry and its Regional Office.
- xiii. The project proponent shall take all precautionary measures for conservation and protection of wild fauna found in the study area. A Wildlife Conservation Plan specific to this project site shall be prepared in consultation with the State Forest and Wildlife Department. A copy of the Conservation plan shall be submitted to the Ministry and its Regional Office.

- xiv. The project proponent will also provide the latest status of the environmental compliances in respect of its existing plant.
- xv. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
- xvi. Efforts shall be made to further reduce water consumption by using air cooled condensers. 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 shall be adopted.
- xvii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- xviii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986.
- xix. All the bag filter dust, raw mill 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. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.
- xx. The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.
- xxi. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilisation of such wastes as per the Environment (Protection) Rules, 1986 and with necessary approvals.
- xxii. Efforts shall be made to use the high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous Waste Regulations and prior approval of the CECB.
- xxiii. Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.

- xxiv. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxv. The project proponent shall provide for LED lights in their offices and residential areas.
- xxvi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
- xxvii. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xxviii. In addition to the above provision of ESC, the proponent shall prepare a detailed CSR Plan for the next 5 years including annual physical and financial targets for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Skill Development and infrastructure etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xxix. A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xxx. To educate the workers, all the work places where 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.
- xxxi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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 Chhattisgarh Environment Conservation 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, Forests and Climate Change (MoEFCC).
- 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, PM_{2.5}, 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 Nagpur 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, Forest and Climate Change (MoEFCC) 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 Nagpur. 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 MOEFCC at Nagpur. The respective Zonal Office of CPCB

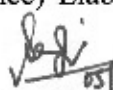
and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- 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 MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Nagpur / 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 MOEFCC at Nagpur 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, Forests and Climate Change (MoEFCC) 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 Nagpur.
- 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.

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

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

12.0 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, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


(Dr. Satish C. Garkoti)
Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Government of Chhattisgarh.

2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Chairman, Chhattisgarh Environment Conservation Board, "Chhattisgarh Housing Board Colony, Commercial Complex, Kabir Nagar, Raipur, Chhattisgarh.
4. The Additional Principal Chief Conservator of Forests (C) of Ministry of Environment Forest and Climate Change Regional Office(WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Line, Nagpur-440001.
5. Guard File / Record File/Monitoring file.

(Dr. Satish C. Garkoti)
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