

F. No. J-11011/343/2012-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 7th November, 2017

To

Rakesh Bhargava, Vice President (Environment)
M/s Shree Cement Limited,
Bangur Nagar, Post Box No. 33,
Beawer, Rajasthan - 305901
E-mail: bhargavr@shreecementltd.com Tel: 0146 2228117.

Subject: Proposed expansion of existing integrated cement plant capacity, Clinker from 11.2 to 15.0 Million TPA, Cement 8.8 to 13.2 Million TPA, WHRS from 68 to 90 MW, CPP 180 MW, Synthetic Gypsum 1560 TPD & DG Sets from 1000 to 2000 KVA, located near Village Ras, Tehsil Jaitaran, District Pali, Rajasthan by M/s Shree Cement Limited – Environmental Clearance regarding.

Sir,

This has reference to your online application vide proposal no. **IA/RJ/IND/26617/2015** dated **1st July 2016** along with copies of EIA/EMP reports and subsequent letters dated 20th July 2017 and 13th September 2017 seeking Environmental Clearance under the provisions of EIA Notification 2006 for the project motioned in the subject. The proposed project activity is listed at Sl. No. 3(b), 'Cement Plants' under Category 'A' of the Schedule of EIA Notification 2006 and appraised by at Central Level.

2.0 The expansion of Integrated Cement Plant [Clinker (11.2 to 15.0 Million TPA); Cement (8.8 to 13.2 Million TPA); WHRS (68 to 90 MW); CPP (180 MW); Synthetic Gypsum Unit (1560 TPD); and DG Sets (1000 to 2000 KVA)] of M/s. Shree Cement Limited located near Village Ras, Tehsil Jaitaran, District Pali, Rajasthan was initially received in the Ministry on 24th January 2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee [EAC (Industry-I)] in its 33rd meeting held during 10th – 11th February, 2015. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project vide Letter No. J-11011/343/2012-IA-II(I) dated 10th February 2016 for the preparation of EIA/EMP report.

3.0 The present proposal is for expansion of Integrated Cement Plant [Clinker (11.2 to 15.0 Million TPA); Cement (8.8 to 13.2 Million TPA); WHRS (68 to 90 MW); CPP (180 MW); Synthetic Gypsum Unit (1560 TPD); and DG Sets (1000 to 2000 KVA)]. The existing project was accorded environmental clearance vide Letter No. J-11011/343/2012-IA-II(I) dated 10th September 2015. The Status of compliance of earlier environmental Clearance was obtained from Regional Office, Lucknow, vide F.No. IV/ENV/R/IND – 154/905/2015/1459, dated 1st March 2016 and 19th July 2017. There are no non-compliances were reported by RO. The proposed expansion capacity for different products for existing industry site as below:

S. No.	Particular	Unit	Existing Capacity	Additional Capacity	Total Capacity After Expansion
1.	Clinker (Million TPA)	Unit - III to Unit - VIII	6 units x 1.2 = 7.2	Nil	7.2
		Unit - IX	2.0	0.6	2.6
		Unit - X	2.0	0.6	2.6
		Unit - XI (Proposed)	Nil	2.6	2.6
		Total	11.2	3.8	15.0
2.	Cement (Million TPA)	Unit - III & IV (Ball Mill with RP)	2 units x 2.2 = 4.4	Nil	4.4
		Ras New Cement Unit (VRM + Ball Mill)	4.4	Nil	4.4
		Proposed Cement Unit (VRM+ Ball Mill)	Nil	4.4	4.4
		Total	8.8	4.4	13.2
3.	Captive Power Plant (MW)	-	180	Nil	180
4.	Waste Heat Recovery Generation (MW)	-	68	22	90
5.	Synthetic Gypsum Unit (TPD)	-	1560	Nil	1560
6.	D.G Sets (KVA)	-	1000	1000	2000

4.0 Total plant area is 231.54 ha (which includes 187.56 ha existing plant area and 43.98 ha additional area within plant boundary); 72.7 ha area is also available outside the plant boundary for future use; the proposed expansion will be done within the existing area. Bagatpura residential colony is established in an area of 40 ha land. No forest land is involved. No River passes through the project area.

5.0 The topography of the area is flat and situated between 26° 15' 31.6" to 26° 16' 45.3" N Latitude and 74° 10' 53" to 74° 11' 48.1" E Longitude in Survey of India toposheet no. 45 J/3, 45 J/4, 45 J/7 and 45 J/8 at an elevation of 374 m to 400 m. The ground water table reported to be 30 m during pre-monsoon period and 25 m during post monsoon period.

6.0 No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve/ Elephant Reserve etc. are reported to in the core and buffer zone of the project. The area also does not

report to form corridor for Schedule- 1 Fauna. There is one Reserve Forest (5.0 km in SSE direction) and One Protected Forest (9.9 km in SE direction) exists within the study area.

7.0 The raw materials required for the proposed expansion project are limestone (22.5 MTPA), laterite / lead zinc slag (0.675 MTPA), Indian, Imported synthetic and chemical gypsum (0.66 MTPA), Indian and imported coal and pet coke (5.5 MTPA) and fly ash (4.5 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.

8.0 The water requirement of the project is estimated as 3500 m³/day including cement plant, CPP, WHRB, Synthetic Gypsum Plant and Bagatpura Residential Colony which will be sourced from ground water. The permission for withdrawal of 2800 m³/day from the ground water sources was obtained vide CGWA Lr. No. 21-4(12) WR/CGWA/2005-616, dated 23rd May 2011 and subsequent renewal vide CGWA Lr. No. 21-4(12) WR/CGWA/2005-1220 dated 12th July 2013 for drawing of 1000 m³/day and additional quantity of 200 m³/day vide CGWA Lr. No. 21-4(12-B) WR/CGWA/2005-255 dated 11th February 2014.

9.0 The power requirement of the project is estimated as 3200 KVA after expansion. The power is sourced from the Captive power plant, WHRB and Grid.

10.0 Baseline environmental studies were conducted during summer season i.e. from March to May 2015. Ambient Air Quality monitoring has been carried out at 12 locations during from March to May 2015 and the data submitted indicated: PM₁₀ (81 µg/m³ to 56.20 µg/m³), PM_{2.5} (38.1 to 20.6 µg/m³), SO₂ (9.8 to 5.2 µg/m³) and NO_x (26.3 to 14.2 µg/m³). The results of the modelling study indicate that the maximum increase of GLC for the proposed project is 4.96 µg/m³ with respect to the PM₁₀; 1.32 µg/m³ with respect to the SO₂; and 4.30 µg/m³ with respect to the NO_x.

11.0 Ground water quality has been monitored in 9 locations in the study area including plant site and analysed. pH: 7.08 to 7.56; Total Hardness: 360.80 to 581.12 mg/l; TSS 978 to 1489 mg/l.

12.0 Noise levels has been monitored in 12 locations in the study area including plant site and analysed, are in the range of 63.2 to 50.2 dB(A) for daytime and 57.1 to 39.4 dB(A) for night time.

13.0 As the present proposal is for expansion of existing industry, no R&R is involved.

14.0 No solid waste will be generated from the cement manufacturing process. Dust collected from air pollution control equipment 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.

15.0 63.8 ha (34% of the total existing plant area i.e. 187.5 ha) has already been developed under greenbelt/ Plantation. Additional 14.5 ha will be further developed for this expansion project.

16.0 It has been reported that the Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board dated 1.1.2016 and valid up to 31.12.2018.

17.0 The Public hearing of the project was held on 20th April, 2016 under the Chairmanship of District Magistrate Pali, Rajasthan. The issues raised during public hearing *inter alia* include Employment; Environment related; plantation; education; and ESC activities etc. An amount of Rs. 1887.50 Lakhs were allocated towards Enterprise Social Commitment for activities *inter alia* include health and family welfare; Education programmes; community development; women empowerment; etc.

18.0 The capital cost of the proposed Expansion project is Rs. 755 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. After expansion, regular manpower will be 1460 and on contractual 1951.

19.0 The proponent has mentioned that there are no court cases or violation under EIA Notification, 2006 or directions under Environment (Protection) Act to the project or related activity.

20.0 The proposal was considered in the 9th meeting of Expert Appraisal Committee [EAC (Industry-I)] held during 27th -29th July 2016. The status of the compliance of the earlier EC submitted by RO Lucknow was also discussed during the meeting. After detailed deliberations, the Committee recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

21.0 The proposal was further considered in the 22nd EAC meeting of Expert Appraisal Committee [EAC (Industry-I)] held during 11th to 13th September, 2017. After detailed deliberations, the committee opined that since the WHRB is eco-friendly measure and the TPP using waste heat boilers (WHRB) without any auxiliary fuel are exempt from EC vide its Notification S.O. 1599 (E) dated 25th June 2014, the proposed expansion of Cement plant is recommended for issue of Environmental Clearance.


22.0 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 for Expansion of existing integrated cement plant capacity, Clinker from 11.2 to 15.0 MTPA, Cement 8.8 to 13.2 MTPA, WHRS from 68 to 90 MW, CPP 180 MW, Synthetic Gypsum 1560 TPD & DG Sets from 1000 to 2000 KVA, located near Village Ras, Tehsil Jaitaran, District Pali, Rajasthan by M/s Shree Cement Limited located 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 MPPCB.
- 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. Plantation at all the neighbouring villages should be done along the road side and in free areas
- 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. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and Time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included. 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.

xxxii. Required permission for withdrawal from the ground water resources shall be obtained from the CGWA for the total requirement of 3500 m³/day of water

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Rajasthan 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, Forests and Climate Change (MoEF&CC).
- 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 Lucknow 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 dB(A)) 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 dB(A) during day time and 70 dB(A) during night time.
- 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 (MoEF&CC) 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 Lucknow. The funds so provided shall not be diverted for any other purpose.
- 84 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&CC at Lucknow. 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&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Lucknow / 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&CC at Lucknow 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 (MoEF&CC) 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 Lucknow.
- 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.

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

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

25.0 The PP shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent

26.0 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

27.0 This EC supersedes the earlier EC granted vide letter J-11011/343/2012-IA-II(I) dated 10th September 2015.

28.0 Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


This issues with the approval of Competent Authority.


(Sharath Kumar Pallerla)
Scientist 'F' / Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Rajasthan, Jaipur
2. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (CZ), Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow – 226020.

3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur
5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector**, Pali District, Rajasthan.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**


(Sharath Kumar Pallerla)
Scientist 'F'/Director