

F. No. J-11015/159/2014-IA.II (M)

Government of India

Ministry of Environment, Forest and Climate Change

Impact Assessment Division

3rd Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jorbagh Road, Aliganj,
New Delhi-110 003

Dated: 30th March, 2017

To,

M/s Shree Cement Ltd.

Post Box No. 33, Bangur Nagar,

Andheri Deori, Beawar,

District Ajmer, Rajasthan-305901

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Sub.: Limestone Mine with enhancement of production capacity from 4.8 Million TPA to 8.6 Million TPA by M/s Shree Cement Ltd., located near village Semaradih & Bharuwadhih, Tehsil Balodabazar, District Balodabazar Bhatapara, Chhattisgarh (MLA: 531.126ha)- Environmental Clearance regarding.

Reference: Online Application IA/CG/MIN/23180/2014

Sir,

This has with reference to the online application for above mentioned proposal of Environmental Clearance for Limestone Mine with enhancement of production capacity from 4.8 Million TPA to 8.6 Million TPA. The mine is located at Villages – Semaradih & Bharuwadih, Tehsil- Balodabazar, District- Balodabazar – Bhatapara, Chhattisgarh in the mine lease area of 531.126ha. Study area falls between 21°34' 36" N to 21°37' 06" N and 82°03'12" E to 82°06' 12" E on the Survey of India Toposheet No. 64 K/2. The Project is located in Seismic zone-II.

2. The ToR was issued by the Ministry vide letter of even no. dated 12th August, 2014. Further, it was amended vide letter of even no. dated 28.09.2015. The EIA/EMP report has been submitted online to the Ministry for seeking Environmental Clearance. The proposal of EC was appraised before the EAC in its meeting held during August 22-23, 2016 wherein the Committee recommended the Proposal for Environmental Clearance for expansion of production from 4.8 Million TPA to 8.6 Million TPA over the mine lease area of 531.126 ha. The proposal was examined and accordingly the Ministry vide letter of even no. dated 25.10.2016 requested the project proponent to submit the information w.r.t. modified mining plan and intersecting of ground water table. In this context, the project proponent vide letter dated 28.10.2016 & 03.02.2017 has submitted the requisite information.

3. The Earlier Environmental Clearance was accorded to the project for production capacity 4.8 million TPA vide letter no. J-11011/235/2008- IA II (I) dated

7th March 2011 and amended dated 1st June, 2011 and 4th February, 2015. Compliance Report of the existing EC has been certified by Regional Office (West Central Zone), Nagpur, vide letter no. 5-11/2011 (Env)/1177, dated 05.10.2015. The compliance report was discussed in the meeting and it was found that the compliance is satisfactory.

4. Total mine lease area is 531.126ha. Out of which 452.404ha is agriculture land and 78.722ha is waste land. This is an existing Limestone mining project with proposed expansion in Limestone production capacity from 4.8 million TPA to 8.6 million TPA. The Modified Mining Plan with Progressive Mine Closure Plan for 531.126 ha area has been approved by Regional controller of Mines, Indian Bureau of Mines (IBM), vide their letter no. Balodabazar/ Chu P/ MP/ Nagpur/ 2015/29 – Raipur dated 13.07.2016. IBM vide letter dated 18.11.2016 mentioned that there is no material technical difference between the draft modified mining plan *vis-a-vis* approved modified mining plan. The Mining is being carried out by fully mechanized opencast method by a combination of shovel and dumper with drilling & blasting. Heavy Earth Moving Machines will also be used. Limestone from Mine is being transported up to the crusher by dumpers and to cement plant via pipe belt conveyor. Life of Mine is 24 years and total minable reserves are 203.2 million tones. At the conceptual stage, out of the total mining lease area (531.126ha), total mined-out area will be 387.1ha, out of which 277.1ha area will be converted in to water reservoir and remaining 110ha area will be backfilled. Green belt/ plantation will be done on 176 ha area. Out of total Green belt area (176ha), 110ha area comes under backfilled area, 21 ha area of waste dump and on 45ha area comes under afforestation on barrier zone along lease boundary.

5. The Mining will intersect ground water table. The Central Ground Water Authority (CGWA), vide letter no.21-4(36)/NCCR/CGWA/2008-569, dated: 08.04.2015 & CGWA vide letter no. 21-4(36)/NCCR/CGWA/2008-1270 dated: 06.08.2015 has given the approval. Further, the CGWA, vide letter dated 01.02.2017 has amended the CGWA approval and inter-alia mentioned that "The firm may continue to abstract 3000 m³/day (not exceeding 10,95,000 m³/year) from ground water and dewatering of mine water due to intersection of ground water table through existing fifteen (15) borewells only".

6. The mining lease over an area of 531.126 ha was granted in favour of M/s Shree Cement Limited, vide State Government order no. F-2/32/2003/12 (3), dated 25.03.2008. The mining lease period has been extended upto 50 years from 11.01.2011 to 10.01.2061 as per Section 8A (5) of M.M.D.R. Amendment Ordinance 2015. The mining operation commenced from 12th March, 2015 as Consent to operate was obtained. Total Mining lease area is 531.126 ha, out of which 78.722 ha is Government land and rest 452.404 ha area is Private land. The mining lease area falls in two Villages Semaradih & Bharuwadih. A residential colony is proposed in non-mineral zone of mining lease area. Total area of colony will be 22 Ha out of which 33% area will be developed as green belt. Total residential units will be 751 numbers in 22 ha with built-up area of 111011 sq meter. All required facilities such as school, temple, shopping complex, medical health center, club house, sewage treatment and safe drinking water availability will be provided. Total water requirement for colony will be 415 and domestic waste water will be treated in STP of capacity 300 KLD.

7. Project Proponent reported that there is no National Parks/Wildlife Sanctuaries/Biosphere Reserves/Wildlife Corridors/Tiger/Elephant Reserves are located within the 10 km study area of the mine lease. Application for Authentication of Location map has been submitted to Forest Department vide letter no. SCL/Raipur/EC/2015-16 dated 26.05.2015. There is one Reserved Forest (Dhabadih Reserved Forest at ~ 0.25 km in NE direction) within 10 km radius study area. State Forest Dept. vide letter no. S. No./SDO/Ra/35 dated: 07.12.2010 has confirmed that no forest land falls within the lease area.

8. The baseline data was collected for the period Summer Season (March to May 2015). The analytical results of samples collected for all parameters were found within permissible limits. Public Hearing was conducted on 22nd January, 2016 at Sarvajanic Rangmanch in Village Khapradih, District – Balodabazar – Bhatapara, Chhattisgarh. The Public Hearing was presided over by Shri M. Kalyani, Additional District Collector, Balodabazar - Bhatapara. The issues raised during Public Hearing were also considered and discussed during the meeting, which inter-alia, included impact of blasting, benefit of expansion project and providing assistance for employment. The action plan with budgetary allocation was discussed by the EAC on issue raised during Public hearing.

9. Total cost of the Project is Rs. 74.70 crores. The Capital Cost for environmental protection measures is Rs. 1.00 crore/- & Recurring cost is Rs. 0.30 crore and Expenditure proposed towards CSR activities is Rs. 187.3 Lacs. Project Proponent reported that there is no Litigation/court case is pending against this project.

10. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the environmental clearance under the provisions thereof to the above mentioned proposal of **M/s Shree Cement Limited for enhancement of production capacity from 4.8 Million TPA to 8.6 Million TPA, located near village Semaradih & Bharuwadhih, Tehsil-Balodabazar, District-Balodabazar Bhatapara, Chhattisgarh in MLA of 531.126ha**, subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:-

A. Specific conditions

- 1) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Chhattisgarh, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- 2) **This Environmental clearance is granted subject to necessary permissions for land use to be obtained from the State Govt. of Chhattisgarh before commencing the activities.**
- 3) **The Proponent shall ensure that the canals should not be diverted. The 50m buffer zone on either side of stream/canal in lease area and adjoining to the mine lease area shall be maintained.**
- 4) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.

- 5) The Environmental Clearance is subject to obtaining requisite NBWL Clearance, if any, from the Standing Committee of National Board for Wildlife for Mining project.
- 6) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Chhattisgarh and effectively implement all the conditions stipulated therein.
- 7) The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.
- 8) The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- 9) Project Proponent should plant only native species for green belt development. Plantation of local species should be carried out during the Monsoon Season. The project should also implement community Development and Welfare programme in the area of Health, Education and Environmental Protection.
- 10) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

B. General conditions

- 1). A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.
- 2). No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- 3). No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- 4). The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.

- 5). Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
- 6). The project proponent shall carry out scientific investigation in respect of "Blast Induced ground vibration, fly rock & air blast". Based on this study, Project Proponent should design an effective blast design to curb blast induced menace and public annoyance. The Report shall be submitted to the Regional Office of the Ministry.
- 7). The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
- 8). Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
- 9). The critical parameters as per the Notification 2009 such as PM₁₀, PM_{2.5}, NO_x, and SO_x etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- 10). Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
- 11). Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 12). Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The

natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.

- 13). Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- 14). Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- 15). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- 16). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 17). Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 18). There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- 19). The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of

dozer/compactors.

- 20). The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate.
- 21). The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 22). Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies 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 shall be constructed at the corners of the garland drains and desilted at regular intervals.
- 23). Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 24). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or

Habitations and villages are surrounded by the mine lease area", if any, applicable to the project.

- 25). The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 26). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- 27). At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office located at Nagpur. Implementation of such program shall be ensured accordingly in a time bound manner.
- 28). 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, 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.
- 29). 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 plugs / muffs.
- 30). 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.
- 31). 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.
- 32). A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 33). The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.

- 34). The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
 - 35). The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
 - 36). The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
 - 37). A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
 - 38). 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.
 - 39). The project authorities should 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, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.
11. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
12. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
13. The above conditions will 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Chhattisgarh and any other Court of Law relating to the subject matter.

14. Any appeal against this environmental clearance 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.

Yours faithfully,


(Surendra Kumar)
Director (S)

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
- (ii) The Secretary, Department of Environment, Government of Chhattisgarh.
- (iii) The Secretary, Department of Mines and Geology, Government of Chhattisgarh, Chhattisgarh.
- (iv) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cumoffice complex, East Arjun Nagar, Delhi-110032
- (v) The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
- (vi) The Additional Principal Chief Conservator of Forests Regional Office (WCZ), Ministry of Environment, Forest and Climate Change, Nagpur.
- (vii) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (viii) The Member Secretary, Chhattisgarh State Pollution Control Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur, Chhattisgarh.
- (ix) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (x) The Chief Wildlife Warden, Govt. of Chhattisgarh, Aranya Bhavan, Jail Road, Fafadih Chowk, Raipur - 492001.
- (xi) The District Collector, Balodabazar Bhatapara District, Chhattisgarh.
- (xii) Guard File
- (xiii) MoEFCC Website.


(Surendra Kumar)
Director (S)