



Speed Post

F. No. J-11015/143/2014-IA.II (M)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

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Dated: 27th October, 2016

To,

M/s Shree Cement Ltd.
Post Box No. 33, Bangur Nagar,
Andheri Deori, Beawar,
District Ajmer (Rajasthan)-305901
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E-mail : bhargavr@shreecementltd.com

Sub.: Limestone mine of M/s Shree Cement Ltd. located near village Kachavaram & inuparajupalli, Mandai -Karemudi, District Guntur, Andhra Pradesh (283.585 ha.)(3.6 MTPA) -Environment Clearance regarding.

Reference: Online Application IA/AP/MIN/24151/2014

Sir,

This has reference to the online application for above mentioned proposal. The Shree Cement Limited (SCL) proposes to produce 3.6 Million Tons Per Annum Limestone from mine located at village Kachavaram & Inuparajupalli, Mandal Karemudi, District- Guntur, Andhra Pradesh. The Mining Lease area is 283.585 hectares. Limestone mined from the mine will be supplied to the proposed cement plant at adjacent Pedagarlapadu village. The LOI was issued on 19.05.2010 by Government of Andhra Pradesh for the grant of Mining Lease over an area of 283.585 hectares for the period of 30 years. The lease area lies on River Ken. The co-ordinates of Mine Lease area are- Latitude: 16° 30' 59" to 16° 32' 55" N, Longitude: 79° 43' 03" to 79° 44' 04" E on Survey of India toposheet numbers 56P/10.

2. The proposal for TOR was considered by the Expert Appraisal Committee (mining) in its 21st meeting held during July 8-9, 2014 to determine TOR for undertaking details EIA study. The TOR was issued by MoEF&CC vide letter number J-1015/143/2014-IA. II(M) on dated 12th August, 2014. The proposal of EC was appraised in the EAC meeting held during 23-24 May 2016 wherein the Committee sought additional information. Further, the proposal was reconsidered in meeting of

EAC held during August 22-23, 2016 wherein the Committee deliberated at length the information submitted by PP and recommended the environmental clearance for limestone mine of M/s Shree Cement Ltd. located near village Kachavaram & Inuparajupalli, Mandai -Karemudi, District Guntur, Andhra Pradesh for production of 3.6 MTPA over the mine lease area of 283.585 ha.

3. The Mining Lease area is 283.585 hectare, the lease area is an agricultural land. The PP has proposed open cast mechanized mining, which includes controlled blasting and wet drilling/dry drilling with dust collector, Use of Hydraulic Excavators, Dumpers, Rock Breaker, Crushing, Stacking & Reclaiming and Motor Grader, Road Compactor. Maximum bench height would be 10 m and minimum bench width would be 20m. Ultimate pit angle slope is proposed to be kept at 45°. Limestone will be crushed by 1200 TPH crusher, which will be installed at mine lease area. Crushed limestone will be transported to cement plant by conveyor belt. Available topsoil will be stacked separately and used for plantation as well as to spread over backfilled area. Over burden and inter burden would be stacked at earmarked area and will be backfilled in worked out pit. Life of the mine is 48 years @ 3.6 Million Tonnes per Annum limestone production. In the first five years, 0.56 Million Cubic Meter Over Burden will be generated. At the end of life of mine, 5.07 Million Cubic Meter (7.61 Million Tons) of Over Burden will be generated. The Over Burden generated will be back filled in excavated area where mineral has been exhausted.

4. Mining plan with mine Closure Plan has been approved on 03.08.2012 vide letter no MP/AP/GNR/Lst-243-SZ/462. Baseline data was generated from 1st December 2014 to 28th February 2015. Baseline study was conducted around 10 km area from the Mining Lease area. Ambient air samples from 8 locations were analyzed for PM_{2.5}, PM₁₀, SO₂, NO₂, nickel, lead, zinc content. Silica content was measured for PM₁₀. The air quality was found to be meeting the National Standards. Noise levels were monitored at 8 locations and levels were found to be meeting the National Standards. Total water requirement for dust suppression, green belt development, drinking and utility purpose will be 120 kl/day which will be sourced from ground.

5. The terrain of the site is almost flat. It was reported by the PP that no forest land in the lease area. No national park & wildlife sanctuary is present in 10 KMs. radius of area. Madinapadu Reserve Forest is present at a distance of ~9.5 km. in North direction. Nearest railway station is Nadikudi, 6 km in North direction. Nearest Town is Dachepalli, ~5 km. in North direction. Nearest Airport is Vijayawada, ~114 km. in East direction.

6. The Public Hearing was conducted on 29.10.2015 at 11.00 AM at, village – Kachavaram, Mandal Karampudi District Guntur Andhra Pradesh. The Public Hearing was presided over by Sri Kantilal Dande, I.A.S. Collector & District Magistrate, Guntur. The issues raised during Public Hearing were also considered and discussed during the meeting, which inter-alia, included drinking water facility, resources Development, Medical Assistance, Sanitation Programme, Plantation Programme, Education facility, village infrastructure and employment potential. Total cost of the project is Rs. 169 Crores. Capital Cost of environmental protection measures for mine is Rs. 2.0 Crores & Recurring cost is Rs. 0.60 Crores /annum. No court cases / litigations / violations are pending against the project.

7. The Ministry of Environment, Forests & 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 **Limestone mine of M/s Shree Cement Ltd. located near village Kachavaram & inuparajupalli, Mandai -Karemudi, District Guntur, Andhra Pradesh (283.585 ha.)(3.6 MTPA)** subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:-

A. Specific conditions

- 1) The R&R plan shall be strictly implement in the time bound manner.
- 2) The Soil should be tested regularly for mercury contamination.
- 3) The station for continuous monitoring of air quality shall be setup.
- 4) The lime stone shall be transported through the Conveyor belt.
- 5) The effluent water used for dust suppression shall be tested for Cr 6+ and shall be treated if Cr6+ contamination is detected.
- 6) The mineralized zone at boundary with adjoining mine leases should be utilized for perspective of mineral conservation.
- 7) Training to 7 youth (ITI Holder) from PAF and then employment in the project shall be provided.
- 8) Training to 43 youth from PAF (Operation & Maintenance of mining) and then employment in the project shall be provided.
- 9) Training to 10 youth from PAF (Gardening & Housekeeping) and livelihood in project (through contractors) shall be provided.
- 10) Training to 5 youth from PAF (Driver) and livelihood in project (through contractors) shall be provided.
- 11) Training to 15 youth from PAF (Helper) and livelihood in project (through contractors) shall be provided.
- 12) Free medical facilities in proposed health management centre by the company to all PAF shall be provided.
- 13) Vocational training to one family member of PAF for sustainable livelihood shall be provided.
- 14) Controlled Blasting technique i.e. use of shock tube detonators (Down Line Detonators in combination with Noiseless Trunk Line Detonator in place of Detonating Cord & Delay Detonators shall be done.

- 15) Use of delay detonators to keep charge per delay within permissible limit, wherever required shall be done.
- 16) Use of Bottom air deck for better utilization of explosive energy shall be done.
- 17) Optimization of Blast Geometry shall be done.
- 18) Use of Polymer Beads / air decking to reduce the charge density in the hole shall be done.
- 19) Designing initiation pattern in such a way that the blast vibration will travel away from the habitation shall be ascertain.
- 20) Using hydraulic rock breaker in place of secondary blasting shall be done.
- 21) Proper Charge per delay: When any permanent structure lies within 500 meter from blasting site, the charge per delay shall be as permitted by DGMS so no damage shall take place to the structure.
- 22) Making dummy holes in between ML boundary and blasting site towards the habitation side shall be done.
- 23) Wet drilling system / dust cyclone system shall be used to control dust.
- 24) De-dusting system will be provided at screening & crushing plant.
- 25) Atomized water sprinkling system (Automatic) shall be provided at crusher hopper (Unloading point).
- 26) The trees to be planted shall includes fruit bearing trees like Jamun, Amla, Mango, Imli etc. in consultation with forest department.

B. Standard conditions

- 1). Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- 2). This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, as applicable for this Mining project.
- 3). The Project Proponent shall obtain Consent to Operate from the concerned State Pollution Control Board and effectively implement all the conditions stipulated therein.
- 4). Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.
- 5). 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.

- 6). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. 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.
- 7). 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.
- 8). No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- 9). No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- 10). Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM)/State Mines and Geology Department as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
- 11). 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.
- 12). 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.
- 13). 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.
- 14). The critical parameters as per the Notification 2009 such as PM_{10} , $PM_{2.5}$, 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.


- 15). 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.
- 16). 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.
- 17). 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.
- 18). 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.
- 19). 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.
- 20). The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.

- 21). 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.
- 22). 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.
- 23). 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. Crusher and material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.
- 24). 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.
- 25). 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.
- 26). 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.
- 27). 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.
- 28). 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.

- 29). 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.
- 30). 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.
- 31). 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.
- 32). 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".
- 33). 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.

- 34). 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.
- 35). As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 36). 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.
- 37). 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.
- 38). 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.
- 39). 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.
- 40). 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.
- 41). 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.
- 42). 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.
- 43). 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.

- 44). 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.
- 45). 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.
- 46). 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.
- 47). 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.
8. The Ministry or any other Competent Authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
9. 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 the Environment (Protection) Act, 1986.
10. 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.
11. 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)
Scientist 'F'

Copy to:

- i. **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- ii. **The Secretary**, Department of Environment, Government of Andhra Pradesh, Hyderabad.
- iii. **The Secretary**, Department of Forests, Government of Andhra Pradesh, Hyderabad.
- iv. **The Secretary**, Department of Mines and Geology, Government of Andhra Pradesh, Hyderabad.
- v. **The Secretary**, Department of Industries and Commerce (M-III), Govt of Andhra Pradesh, Hyderabad.
- vi. **The Additional Principal Chief Conservator of Forests (C)**, Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 600034
- vii. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- viii. **The Chairman**, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018
- ix. **The Member Secretary**, Central Ground Water Authority, A2, W- 3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- x. The Chief Wildlife Warden, Govt. of Andhra Pradesh, Aranya Bhawan , Saifabad, Hyderabad-500004
- xi. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
- xii. **The District Collector**, Guntur District, Government of Andhra Pradesh.
- xiii. Guard File.


(Surendra Kumar)
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