

**THE RAMCO CEMENTS LIMITED**  
**(Formerly known as Madras Cements Ltd.,)**  
**COMPLIANCE REPORT FOR ENVIRONMENTAL CLEARANCE**  
**BUDAWADA LIMESTONE MINE - 1.10 MILLION TPA CAPACITY**

EC Lr. No : J-11015/150/2008-IA.II (M) dated 10.12.2009  
Period : October 2018 to March 2019

**A. Specific Conditions:**

- i. *Environmental Clearance is subject to obtaining Forest Clearance under Forests (Conservation) Act, 1980 from the Competent Authority before start of work at mine.*

Forest Clearance is obtained from The Ministry of Environment & Forests (FC-Division), Government of India, vide letter No. 8-56/2005FC date 22.12.2011.

The mine is opened on 01.02.2014 after tree Growth is extracted'. The production started as per the requirement of the cement plant. The regular production is not yet started as planned due to lack of proper approach road to transport limestone from mines to plant.

- ii. *Wild life conservation plan shall be prepared in consultation with the office of the Chief Wild Life Warden and implemented within six months. The plan shall comprise of in-built monitoring mechanism with special emphasis to protection of Schedule- I species. The status of implementation shall be submitted to the Ministry.*

Wild life conservation plan is not prepared as no wild life and schedule -1 species are present in the area as per the DFO, Krishna Division, Vijayawada through Letter No. Rc. No.712/95-V6 dated 29.08.2008. No wild life is observed, after opening the mine in the subject area.

- iii. *Hydro-geological study of the area shall be reviewed annually and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quality and quantity is observed, mining shall be immediately stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.*

Detailed hydro-geological study is carried out & report submitted to the Ministry along with EIA report submitted for the project. Presently, the mine workings are not touched the ground water table. Groundwater level is being monitored regularly (at 3 locations) and readings are being recorded. The ground water data for the period October 2018 to March 2019 is being submitted to the CGWB, copy is enclosed as Annexure – I.

The Panchayath Raj & Rural Development (PR&RD), Government of Andhra Pradesh (agency authorized to issue NOC on behalf of CGWA, Delhi for Andhra Pradesh projects) issued NOC vide their letter No. 69/RD/SLNA/APWALTA-NOC/2015 dated 23.05.2017. Copy of the letter is enclosed as Annexure – II. The conditions stipulated in this NOC are being followed and yearly compliance reports are being submitted to the concerned.

iv. *A 50 m barrier of no mining zone on the side(s) of the nallahs / streams flowing in or adjacent the lease (if any) shall be demarcated and the barrier shall be thickly vegetated with native species of trees and shrubs.*

Not applicable, as no nallah or stream is flowing in or adjacent to the mining lease.

v. *The company shall ensure that no silt originating due to mining activity is transported in the surface water course (if any) flowing in the area.*

No silt will be generated due to mining activity as there is no beneficiation of the limestone is taking place and there is no surface water course flowing in the mining lease area also.

vi. *Shelter belt i.e., Wind Break consisting of adequate tiers of plantations around lease facing the human habitation, school / agricultural fields etc., (if any in the vicinity) shall be raised.*

The entire mine lease area is forest land. No human habitation / school / agricultural fields exist within the vicinity of subject area.

vii. *Occupational Health Cell shall be created at the company under the charge of an officer of adequate seniority who is a qualified person in occupational health.*

A full-fledged Occupational Health Centre with a qualified Occupational Health Specialist with supporting staff is established with the following facilities:

- X-ray
- ECG
- Spirometry (lung function test)
- Audiometry
- Semi-auto analyser to carryout bio-chemical tests
- Clinical lab for micro-biological tests (including sputum test)
- Checking colour blindness
- Dental chair
- Ambulance

Occupational health surveillance programme is taken up periodically and records are being maintained.

viii. *Personnel exposure monitoring for dust shall be carried out for the workers.*

Personnel dust sampling is being done by MoEF&CC approved external environmental monitoring agency.

ix. *Land-use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action plan for abatement and compensation for damage to agricultural land / common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Ministry within six months.*

Detailed land use pattern of the nearby villages is made in EIA/EMP. The mine is opened on 01.02.2014 but regular production activity is yet to start. Hence damage to

the agriculture land does not arise. Action plan will be submitted once full-fledged production from the mine starts.

- x. *Need based assessment for the nearby villages shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc., can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.*
- Company is organizing various socio-economic activities for the surrounding villages. All the CSR activities for the nearby villages are being carried out as per the need basis of the local people (requirements collected from them), subjected to the budget availability.
  - An amount of about Rs. 78.006 lakh per annum (average for the period 2014-19) is being spent for various socio-economic activities for the surrounding villages as part of Corporate Social Responsibility (CSR) activities. These include village-wise, sector-wise (health, skill development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc.).
  - Children from the surrounding villages are studying in the school located in the cement plant colony.
  - Apprentice training with stipend is being given for local people who have completed Industrial Training Institute (ITI) certificate, regularly.
  - Details of expenditure for the financial year 2018-19 are enclosed as Annexure - III.
- xi. *Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Ministry.*

Fugitive dust generated during mining activities is being controlled by water spraying and implementing wet drilling. There are no human habitations including schools and other public amenities located nearer to the mine.

- xii. *Cumulative impacts of the proposed mine and other mines including mine of M/s Jaypee Cement on the Ambient Air shall be assessed and data submitted to the Ministry within six months.*

Report on cumulative impacts along with neighboring M/s Jaypee Balaji Cements is submitted through our Lr. No. TRCL/MoEF/3323/2013 dated 11.11.2013 to the Ministry.

- xiii. *Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Ministry within six months.*

Rain water harvesting pits and one check dam will be constructed to recharge the ground water after commencement of full-fledged production from the mine. The status of the same will be submitted to the Ministry accordingly.

48 Nos. of rain water harvesting pits are made at colony & 4 Nos. of rain water harvesting pits are made at associated cement plant for roof top collection to recharge ground water table, as on March-2019.

xiv. *Monitoring of ground and surface water quality shall be regularly conducted and records maintained and data submitted to the Ministry regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water and records maintained. Monitoring for Arsenic in ground water shall be undertaken.*

Ground water quality is being monitored in buffer zone and records are being maintained. Compiled data on analysis reports of the same for the period from October-2018 to March-2019 is enclosed as Annexure - IV. It is observed from the ground water analysis reports that Arsenic concentration is Below Detectable Limit (<0.01 mg/L).

xv. *Measures for prevention and control of soil erosion and management of slit shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.*

There is no top soil generation from this mining lease area. As on date there are no dumps. Dumps generated, if any, will be protected accordingly.

xvi. *Provision shall be made for the housing the labourers 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.*

As the project is completed and there is no requirement of housing of the labourers. During the project time, the labourers were mobilized from the nearby villages. Once the regular production starts, the housing will be provided in the colony located near cement plant, for the regular employees.

xvii. *Trenches / garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of Check Dams and Gully Plugs shall be constructed across seasonal / perennial nallahs (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.*

As on date there are no dumps. Trenches / garland drains will be constructed at foot of dumps, accordingly. Check dam will be constructed at the end of the garland drain. There are no seasonal or perennial nallahs / streams flowing in the subject area.

xviii. *Occupational health and Safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and*

*precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required.*

Awareness programme on health & safety for workers of work related health hazards, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., and precautionary measures like the use of PPE are also being imparted. Protective respiratory devices are provided to the personnel working in dusty areas (near drilling and loading areas) and adequate training and information on safety and health aspects are being provided as part of Mines Vocational Training.

A full time qualified doctor who is trained in occupational health services is appointed. Occupational health checkup is being carried out for all mine workers at the time of joining and is periodically reviewed as per statute for all mine workers.

xix. *Greenbelt development and selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.*

Will ensure that the greenbelt development and selection of plant including herbs and shrubs as per CPCB guidelines. The 3000 Nos. of plants are planted over an area of 3.25 Ha all along the boundary by March-2019. Details of year-wise afforestation programme will be intimated to the Ministry accordingly. Mine is opened on 01.02.2014. As on date, no mined out area is available. As and when the mined out is available, the rehabilitation programme will be taken up accordingly.

xx. *Top soil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area. Top soil shall be separately stacked for utilization later for reclamation and shall not be stacked along with over burden.*

There is no top soil in the subject area. Any solid waste generated during mining will be stacked separately within the angle of repose of material, in the SW corner of mining lease area. The same material will be utilized for formation of internal roads and for backfilling on I & II benches to a height of 1 - 1.5 m for plantation purpose at the end of mining.

xxi. *Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and overall slope of the dump shall not exceed 28°. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliances status shall be submitted to the Ministry of Environment & Forests on six monthly basis.*

At present, there is no OB generated in the area as the regular production from the mine is yet to start. Overburden (generated if any) will be stacked in the SW corner of

mining lease area and status of the same will be submitted to the ministry on six monthly basis.

*xxii. Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.*

Ultimate pit slope will be maintained at 45<sup>o</sup> as per approved mining scheme.

*xxiii. The waste water from the mine shall be treated to conform to the prescribe standards before discharging into the natural stream. The discharged water from the Tailing Dam (if any) shall be regularly monitored and report submitted to the Ministry of Environment & Forests, Central Pollution Control Board and the State Pollution Control Board.*

There is no waste water generation from this mine. There is no generation of tailings from the mining of limestone, hence no proposal for tailing dam.

*xxiv. Action plan with respect to suggestions / improvements and recommendations made during public consultation / hearing shall be submitted to the Ministry and the State Govt. within six months.*

Action plan with respect to suggestions / improvements and recommendations made during public consultation / hearing is submitted along with earlier half yearly compliance reports.

*xxv. A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests, 5 years in advance of final mine closure for approval.*

The final mine closure plan will be submitted as suggested.

*xxvi. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. Transportation of ore shall be done only during day time. The vehicles transporting ores shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of ores for transportation shall be committed.*

Vehicles having valid permission as per Central Motor Vehicle Rules, 1989 are being used for transportation of material. To avoid fine particles escape while transporting, the following measures will be adopted:

- Moderately loading of tippers.
- Body height of the tippers will be raised by 1 foot.

A separate road on company's own land is proposed to make for transportation of limestone to crusher.

xxvii. *The Environmental Clearance is subject to the condition, if any, stipulated by the IBM on the mining scheme submitted by the project proponent for its approval.*

Noted for compliance. The conditions stipulated by IBM on the scheme of mining will be followed, after commencement of full-fledged production from the mine. The present Scheme of Mining is valid from 2014-15 to 2018-19 approved by IBM.

xxviii. *Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.*

Not applicable as the mining lease consists of only one limestone mineral bearing deposit.

#### **B. General Conditions:**

i. *No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.*

Noted for Compliance.

ii. *No change in the calendar plan including excavation, quantum of mineral and waste shall be made.*

Noted for Compliance. In the financial year 2018-19, limestone production was 97,410 tonne against EC quantity of 1.10 million TPA. The production was less due to less market demand also due to lack of proper approach road to transport limestone from mine to the cement plant.

iii. *Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.*

Fugitive dust generated during mining activities is controlled at the source by water spraying and wet drilling.

iv. *Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RSPM, PM<sub>10</sub> / PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical feature and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.*

4 and 9 Nos. of ambient air quality monitoring stations are established in core and buffer zones respectively based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the SPCB and regular (fortnightly) manual monitoring by MoEF&CC approved external environmental monitoring agency (M/s B.S. Envi-tech, Hyderabad) for SPM, RPM, SO<sub>2</sub>, NO<sub>x</sub> and CO monitoring.

- v. *Data on ambient air quality (RSPM, PM<sub>10</sub> / PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>) should be made regularly submitted to the Ministry including its Regional office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months. The monitored data of criteria pollutants mentioned above shall be regularly uploaded on the company's website and also displayed at project site.*

Data of the Ambient Air Quality is being submitted to the Regional Office, MoEF&CC, Chennai and the SPCB regularly once in six months. Compiled data for the period October-2018 to March-2019 is enclosed vide Annexure – V. The data is displayed at project site. The half-yearly compliance reports are being uploaded on the company's website.

- vi. *Measure shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.*

Vehicles are being maintained properly for control of noise. Ear plugs / muffs are provided to respective HEMM operators. Various other precautions are also being taken to control the noise. Compiled data of Noise levels measured for the period from April-2018 to March-2019 is enclosed as Annexure – VI.

- vii. *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 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.*

Presently, the workshop facility located at cement plant area, is being used for maintenance of vehicles engaged for this mine also. Oil & grease trap arrangement is provided at the workshop. There is no generation of waste water from this mine.

- viii. *Personnel working in dusting areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.*

Protective respiratory devices are being provided and adequate training and information on safety and health aspects are being provided as part Mines Vocational Training.

- ix. *Provision shall be made for the housing the labourers 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.*

As the project is completed and there is no requirement of housing of the labourers. During the project time, the labourers were mobilized from the nearby villages. Once the regular production starts, the housing will be provided in the colony located near cement plant, for the regular employees.



- x. *A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.*

Environment management cell is established with qualified personnel to look after the environment management related activities and is reporting to senior executive of the company. The organization chart is enclosed as Annexure - VII.

- xi. & xiii. *The project authorities shall inform to the Regional Office of the Ministry located at Bangalore regarding date of financial closures and final approval of the projects by the concerned authorities and the date of start of land development work.*

Date of financial closure for this project is not required as total funding for this project is from own funds.

- xii. *The funds earmarked for environment protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore.*

The funds earmarked for environment protection are not diverted for other purposes. The details of environmental protection expenditure for the financial year 2018-19 and funds allotted for the financial year 2019-20 are enclosed as Annexure - VIII.

- xiv. *The Regional Office of the Ministry located at Bangalore shall monitor compliances of the stipulated condition. The project authorities shall extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.*

Necessary cooperation along with relevant data will be provided.

- xv. *The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment & Forests, its Regional office, Bangalore, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status compliances of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment Forests, Bangalore.*

Being submitted for the half-yearly period October-2018 to Marhc-2019, in the form of hard copy as well as through email to Ministry's Regional Office located at Chennai and State Pollution Control Board. Soft copy of the compliance reports are being uploaded in the company's website.

xvi. *The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one which shall be in the vernacular language of the locality, / office of Municipal Corporation / Gram Panchayat concerned on the company's website within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board / Committee and may also be seen at website of the Ministry of Environment and Forests at <http://envfor.nic.in>.*

Advertisement made on two local newspapers viz., Saakshi (Telugu daily) and Deccan Chronicle (English daily) on 12.12.2009 regarding the same and a copy of the same is forwarded to RO, Bangalore. The clearance letter is uploaded to the company's website.

xvii. *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. The clearance letter shall be also put on the website of the company.*

The clearance letter is uploaded to the company's website.

xviii. *State Pollution Control Board shall display a copy of the clearance letter at the Regional office, District Industries Centre and Collector's Office / Tehsildar's Office for 30 days.*

Noted.

xix. *The Environmental Statement for each financial year ending 31<sup>st</sup> March in Form - V as is mandated shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules,1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of Ministry by e-mail.*

Environmental statement for each financial year ending 31<sup>st</sup> March in Form-V is being submitted to the State Pollution Control Board regularly. The Environmental Statement for the year 2017-18 is submitted vide our Lr. No. RCL/PCB-Form-V/240/204 dated 28.08.2018 and is uploaded on the website of the company. The same is sent to Regional Office of Ministry through email.