

**DR. H.MALLESHAPPA,I.F.S.,
MEMBER SECRETARY**



**STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT AUTHORITY,
TAMILNADU,
3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai - 600 015.**

ENVIRONMENTAL CLEARANCE (EC)

Letter No. SEIAA – TN / F..3262/VRD/1(a)/EC-2084/2015 dated 01.04.2015

To

The Senior Vice President (Mines)
M/s The Ramco Cements Limited,
(formerly M/ s Madras Cements Ltd)
Auras Corporate Centre, V Floor
98 A, Dr. Radhakrishnan Salai, Mylapore
Chennai - 600 004.

Sir,

Sub: SEIAA, TN – Environmental Clearance for the project of mining of limestone of quantity 55,556 TPA (ROM) in the existing mining lease area of 4.74.5 hectares at Pandalgudi Village, Aruppukottai Taluk, Virudhunagar District of M/s The Ramco Cements Limited – Issued – Regarding.

- 1.0 This has reference to your application dated 24.12.2014 and subsequent documents submitted for the aforesaid project to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006.
- 2.0 It is noted, inter alia that the project proposal is for mining of limestone of quantity 55,556 TPA (ROM) in the existing mine lease area of 4.74.5 hectares at located at S.F Nos. 38/4, 39/2, 150/1, 151, 153, 157, 162/1, 167/2 & 247/2 of Pandalgudi village, Aruppukottai Taluk, Virudhunagar district. The co-ordinates of the existing mining lease area is furnished as Latitudes N 09°22'00" – 09°24'00" and Longitudes E 78°03'00" – 78°07'00" as per Toposheet No. 58K/3. No forest land is involved. Mine lease was granted initially in favour of Thiru P.A.C Ramasamy Raja vide G.O Ms No. 3687 dated 18.11.1957 with validity upto 16.03.1978 and the mine lease was subsequently transferred to M/s Madras Cements Limited (presently known as M/s The Ramco Cements Limited) vide G.O Ms No. 2057 dated 18.11.1960. First mine lease renewal was granted vide G.O.Ms.No.874 dt 05.06.1980 for the period from 17.03.1978 to 16.03.1988 and then, the second mine lease renewal was granted for 10 years from 17.03.1988

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to 16.03.1998 vide G.O.Ms No.590 dt 29.10.1992. Thereafter, the mine is operated under deemed extension.

- 3.0 The limestone mine is reported to be started its operation in the year 1975. Mining working is conventional fully mechanized opencast mining method involving drilling, blasting, excavation, loading and haulage with deployment of equipments such as ripper dozer, excavator, rock breaker, dozers and trucks etc. Total mineable reserve is estimated as 17,42,748.66 Tonnes, out of which limestone mined out quantity is reported as 11,79,489.66 Tonnes upto 31.3.2011. Present depth of mine working is 45 m bgl (below ground level).
- 4.0 During the present mine scheme period from 2011-12 to 2015-16, it is planned to mine limestone of quantity 55,556 Tonnes per annum (ROM) to generate about 50,000 Tonnes of usable limestone every year. The ultimate mine working depth will be 69 m bgl. Ground water table in the mining lease area generally fluctuates from 20 m bgl-25 m bgl. Mine working will intersect ground water table during the scheme period. Hydro-geological study has been conducted and the report concludes that the limestone mining will not affect the existing hydrogeological condition because of low permeability and transmitting capacity and there will not be any deterioration in the quality of ground water due to the mining activity, on account of non usage of chemically hazardous materials. At the rate of the existing production capacity, the life of the mine will be 11.26 years.
- 5.0 As per the approved mining plan, there will be a generation of mineral rejects of 27,778 Tonnes and developmental wastes of 2,38,882 Tonnes from the mine area during the total mine plan period of 2011 - 2016. The development wastes are proposed to be stacked in the existing dump yards (Dump Nos. 1, 2, 3, 8 & 10) and the mineral rejects are proposed to be accommodated in the existing dumps located in between ML-22 to ML-25 (hang wall side) & ML-28 to ML-33 (foot wall side). The solid wastes generated during the mining period will be stacked as dumps with garland drains provided to control the surface runoffs and erosion/sliding from the dumps. At the end of the mine life, the entire mine lease area of 4.74.5 hectares will be mined out. After completion of mining, the mined out area will be converted into a water reservoir to harvest rain water. This will help in improving the water table in the open wells in the adjoining areas.
- 6.0 The water requirement for the mine operation is stated as 10 KLD, which is obtained from the mine pit seepage water. The break-up quantity of water

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requirement is furnished as 2 KLD for domestic usage and 8 KLD for dust suppression. The mine (ground) seepage water is collected and stored in mine pit (reservoir) located between ML-1 and ML-4 for water need purposes.

- 7.0 No National Park / Wildlife Sanctuary / Biosphere Reserve are reported within 10 km of the mine area. The nearest habitation of Pandalgudi is located 1 km from the mine site in the NE direction. Project cost is Rs. 150 lakhs. Budget allocation under CSR activities is Rs. 20 lakhs per annum. EMP cost is Rs. 44 lakhs per annum. Scheme of Mining was approved by IBM on 14.10.2011.
- 8.0 Pandalgudi Limestone Mine of M/s The Ramco Cements Limited consists of three mine leases of extend areas 189.45 hect, 9.46 hect and 4.745 hect totaling 203.655 hect. All the three mine leases are in juxtaposition. Earlier, EIA report was prepared during the year 2008 and public hearing was conducted on 29.08.2008 covering all the three pandalgudi mine lease areas as single entity even-though there are three mine leases for each mine. But, Environmental Clearance was granted by MoEF vide letter no J-11015/544/2007.IA.II(M) dated 26.03.2009 for the mine lease area of 189.45 hect with a condition that amalgamation of all the three mine leases shall be undertaken if other two mines will be mined. All the three mines should have valid mine leases for the amalgamation purpose of single entity. For obtaining valid mine lease, Environmental Clearance was granted by SEIAA vide letter no. SEIAA-TN/F.No.631/1(a)/EC-1375/2014 dated 17.06.2014 for the another mine lease area of 9.46 hectares. Recent Amendment to EIA Notification, 2006 vide S.O. 2601(E) dated 07.10.2014 stipulates that all major minerals leases of area <50 hect have to obtain Environmental Clearance, which states that the mine lease areas <5 hect has also required to obtain Environmental Clearance. Hence, the present application seeking Environmental Clearance is for the third mine lease area of 4.745 hec. It is reported that no mining of limestone in the subject lease mine area of 4.745 hect from 01.10.2014.
- 9.0 The project of mining of major minerals (ML area < 50 hect) is covered under Category 'B1' and Item No. 1(a) of the Schedule of the EIA Notification, 2006. The project was appraised in the 64th SEAC meeting held on 20.03.2015. The SEAC took note that the this mining lease area of 4.745 hec is encompassed by other two mining lease areas of the project proponent, for which EIA/EMP report was prepared and public hearing process was already conducted covering all the three mining leases of Pundalgudi Limestone mines of M/s The Ramco Cements

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Ltd in that area. The SEAC after due consideration of the application in FORM-1, FORM-1A, Mining plan submitted by the project proponent and additional clarifications furnished in response to its observations, has recommended to the SEIAA, Tamil Nadu for grant Environmental Clearance to the project after obtaining and considering certain details. Additional details were received on 26.03.2015. Then, the SEIAA, Tamil Nadu has considered the project in its 124th meeting held on 27.03.2015 vide Item No. 124-22 and hereby accords Environmental Clearance to the project of mining of limestone of quantity 55,556 TPA (ROM) over an extend of 4.74.5 hectares located at Pandalgudi village, Aruppukottai Taluk, Virudhunagar District under the provisions of EIA Notification dated 14th September, 2006 based on the recommendations of the SEAC and subject to the strict compliance of the following specific and general conditions.

A. SPECIFIC CONDITIONS:-

- a) Conventional full mechanized open-cast mining method shall be adopted as reported for the mining of lime stone.
- b) Drilling shall be done using drills which shall be either be operated with dust extractors or equipped with water injection system.
- c) Controlled blasting shall be practiced. The optimum charge for blasting shall be determined based on vibration study. The blasting operation shall be carried out only during day time. Licence from Competent Authority shall be obtained to store explosive for use in the blasting operation of mining of limestone.
- d) Noise & vibration study during blasting operation shall be conducted engaging reputed organization to fix up the optimum blast parameters and optimum charge per hole etc to have a blast with the vibrations under the threshold limits. These blast parameters shall be adhered to for every blast and monitoring of the vibrations shall be conducted. A report in this regard shall be furnished to TNPCB and Regional Office of MOEF at Chennai.
- e) The mitigation measures for control of ground vibrations and to arrest fly boulders and materials shall be implemented. It shall be ensured that the level of ground vibration shall not exceed the permissible level of 5mm/s
- f) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all transfer points shall also

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have efficient dust control arrangements. These should be properly maintained and operated.

- g) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral within the lease area. The mineral transportation within the mine lease shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
- h) The effective safe guard measures shall be provided to control particulate dust level in critical areas, transfer points and haul road within the mine area.
- i) At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for monitoring of RSPM (PM_{2.5}, P.M₁₀) and NO_x. Location of the stations should be decided in consultation with Tamil Nadu Pollution Control Board based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring etc.
- j) Mine working shall be restricted upto 69 m bgl as per the present mine plan period. As the mine working intersects ground water table at 20m -25m bgl, report of CGWA on intersection of ground water table shall be furnished.
- k) Garland drains and siltation ponds of appropriate size shall be constructed around the mine working, soil and mineral dumps to prevent run off of water and flow of sediments. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted, particularly after the monsoon, and maintained properly.
- l) The rain water accumulation in the mine during rainy seasons shall be treated by providing settling tanks in the periphery of the mining lease area and the overflow clean water from the settling tanks shall be allowed to discharge through the first order streams to join nearby natural drains. The settling tanks shall be cleaned periodically for removal of sediments and such records of cleaning shall be maintained properly.
- m) Garland drains proposed on the non moving sides of the Dump yards shall be connected to settling tanks to arrest any washoff sediments from the dumps and only overflowing clean water shall be allowed to discharge through the first order streams.

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The settling tanks shall be of sufficient dimensions to hold the washoffs in one rainy season and has to be cleaned before every rainy season.

- n) Proper scheme to lay the GEO-MAT on the dump yard on non moving sides shall be evolved to develop plantation on the GEO-MAT to have a green coverage.
- o) Conservation plan furnished to protect the scheduled flora and fauna in the core and buffer zone of the project site shall be implemented. Scheduled species of fauna found in the study area shall be monitored closely.
- p) Annual monitoring on Bio-diversity around the project site shall be conducted and a report shall be furnished.
- q) Greenbelt shall be raised including a 7.5m wide statutory barrier all around the mining lease, reclaimed and rehabilitated areas, around water body, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The ultimate area to be planted /afforested shall not be less than 0.4 ha. The density of the trees should be around 2000 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.
- r) The project authority shall implement suitable water conservation measures including rain water harvesting system to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- s) The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/ procedure to bring into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance of EC conditions and (iii) System of reporting of non-compliance /violation of environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- t) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests, Government of India, New Delhi in advance of 5 years prior to the final mine closure for approval. Mine closure procedure shall be followed as per the approved mining plan.

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- u) Depth of water table of the wells located inside the mining area and wells located around the monitoring area shall be monitored and results shall be furnished along with depth of wells to SEIAA, TNPCB, Regional office of MOEF, Chennai once in 3 months.
- v) CSR activity shall include providing social & welfare measures for the local residents & nearby villages around the mine area. It shall focus on providing water supply and sanitation facility to the nearby government schools around the mine area and maintenance of village roads, ponds, providing solar street lights etc. Funds earmarked for CSR activity shall be used for that purpose only and separate account shall be maintained and report on implementation shall be furnished regularly.

B. GENERAL CONDITIONS:-

- i) The Project Proponent 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 Environmental Clearance informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with TNPCB and also at the Website of the SEIAA, TN at <http://www.seiaa.tn.gov.in>.
- ii) A copy of the Environmental Clearance shall be sent by the project proponent to concerned panchayat, local body, and local NGO, if any from whom suggestions/representatives, if any were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company.
- iii) The State Pollution Control Board should display a copy of the Environmental Clearance issued to the project at the Regional office, District Industry Centre and the Collector's office/Tehsildar's office for 30 days.
- iv) CONSENT of the Tamil Nadu Pollution Control Board shall be obtained for this project of mining of limestone.
- v) All stipulations made by TNPCB & State Government shall be strictly complied with.
- vi) No change in mining technology and scope of working should be made without prior approval of the State Environmental Impact Assessment Authority.

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- vii) No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.
- viii) Monitoring of well water levels and water quality of the wells in the locations furnished in the EIA report shall be done during pre-monsoon and post monsoon period and results submitted to the Regional Office of MoEF, Chennai and SEIAA.
- ix) 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 periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Regional Office of MOEF at Chennai, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
- x) The proponent shall conduct Ambient Air Quality Monitoring Survey once in 6 months in the locations furnished in the Environmental Impact Assessment report and furnish report to the Regional Office of MoEF, Chennai. It shall be ensured that one AAQ station shall be located in the nearby habitation of Sellattankottai village.
- xi) The critical parameters such as RSPM (PM_{2.5}, P.M₁₀) and NOX 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 and Forests, Government of India, New Delhi which is available on the website of the Ministry www.envfor.nic. in shall also be referred in this regard for its compliance.
- xii) Data on ambient air quality [(RSPM and NOX] shall be regularly submitted to the Regional office of MoEF at Chennai and the SEIAA/SPCB/CPCB once in six months.

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- xiii) Monitoring of water quality and air quality in and around the project site in the selected monitoring points as mentioned in the EIA report shall be continued regularly involving Academic Institutions.
- xiv) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- xv) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- xvi) Regular medical check-up for mine workers and nearby residents around the project site involving community medical centre/NIMH shall be conducted.
- xvii) The company shall stress upon the preventive aspects of occupational health.
- xviii) 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.
- xix) 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.
- xx) 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. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- xxi) 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.
- xxii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise

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expenditure should be reported to the Ministry and its Regional Office located at Chennai.

- xxiii) The project authorities should inform to the Regional Office of MoEF located at Chennai regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- xxiv) The Regional Office of the MoEF located at Chennai 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.
- xxv) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the MoEF, its Regional Office, Chennai, the respective Zonal Office of Central Pollution Control Board, SEIAA and the State Pollution Control Board.
- xxvi) The proponent shall upload the status of compliance of the environmental 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 and TNPCB.
- xxvii) 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 clearance conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Chennai by e-mail.

10 The Environmental Clearance is valid for a period of 30 years from the date of issue.

11 Environmental Clearance is being issued without prejudice to the action initiated under Environment (Protection) Act, 1986 or any court case pending or any other court order shall prevail.

12 The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

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- 13 The SEIAA/SEAC, Tamil Nadu may suitably add any further condition(s) on receiving reports from the project authority. The above condition shall be monitored by the Regional Office of MoEF located at Chennai.
- 14 The SEIAA, TN may revoke or suspend the Environmental clearance, if implementation of any of the above conditions is not satisfactory.
- 15 The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
- 16 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.
- 17 The SEIAA-TN reserves the right to stipulate additional conditions if found necessary. The industry in a time bound manner shall implement these conditions.
- 18 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 Chennai and any other Court of Law relating to the subject matter.
- 19 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.

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Copy to:-

1. The Principal Secretary, Environment & Forests Department,
Government of Tamil Nadu, Chennai - 600 009.
2. The Secretary, Department of Mines and Geology,
Government of Tamil Nadu, Tamil Nadu
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office
Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Tamil Nadu Pollution Control Board,
76, Mount Salai, Guindy, Chennai - 600 032.
5. The ACCF(C), Regional Office of MoEF, 34, HEPC Building, 1 & 2 nd Floors, Cathedral
Garden Road, Nungampakkam, Chennai - 600 034.
6. The Member Secretary, Central Ground Water Authority, A2, W -3 Curzon Road
Barracks, K.G. Marg, New Delhi-110001.
7. The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur -
600 001.
8. The District Collector, Virudhunagar District
9. The EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. File copy.

SEIAA
TN