

Dr.R.ANNAMALAI, I.F.S.,
DIRECTOR OF
ENVIRONMENT AND
MEMBER SECRETARY



**STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT
AUTHORITY,
TAMILNADU,**

4-D, Panagal Maligai, 1 Jennis Road,
Saidapet,
Chennai-600 015.

Letter No. SEIAA / TN/EC/1(a)/001/ F-182/ 2009 / dt. 20. 07.2009

To

The General Manager (Mines),
M/s.The India Cements Limited,(Pudupalayam Mines),
Dalavoi Post-621 730
Sendurai Taluk,
Perambalur District.

Sir,

Sub: SEIAA –M/s.The India Cements Limited - Pudupalayam Limestone Mine (ML area-29.295 Hec., Production capacity 1.5 lakh TPA of limestone) at S.No.265,266,268,269,270,353,354,355 and 362 of .Pudupalayam Village, Ariyalur Taluk, Perambalur District - Environmental Clearance - reg.

This has reference to your application No.Nil dated 21.02.2007 submitted to the MoE&F, Government of India for Environmental Clearance. The Expert Appraisal Committee of the Ministry had appraised the project during its meeting held on 16th & 18th May 2007 and issued TORs and also stated that public hearing/consultation is required for the project as per Section 7 III, Stage 3 Para (i) of EIA Notification, 2006. The above application has been received by the SEIAA on 12.11.2008 from the Govt.of India, vide Lr.No.F.No.J-11015/163/2007-IA-II(M),dt.26.09.2008. Further in your letter dt.11.7.2008 addressed to the State Level Environment Impact Assessment Authority (SEIAA), Tamil Nadu, you have requested for Environmental Clearance. The proposal has been appraised by the State Level Expert Appraisal Committee in its meeting held on 19th & 20th of March 2009 as per the prescribed procedure in the light of provisions under EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application Viz., the Application Form-I, EIA report, Minutes of Public Hearing & EMP.

It has been noted that the proposal is for Limestone mining of capacity 1.5 lakh TPA. The mine is located in Perambalur District. The lease area of 29.295 ha., which is owned by the company, is an uncultivable waste land. The Limestone is for captive consumption for its cement plant located at Dalavoi Village, Ariyalur District. Out of the total lease area 29.295 ha., mining will be carried out in 13.00 ha.

An area of 0.1 ha will be kept for (built-up area) infrastructure; 0.65 ha. for roads; 0.85 ha.for green belt 4.195 ha.for outside dumps, 1.610 ha.for peripheral bund and 8.890 ha.area, left undisturbed. At the post mining stage, 10.84 ha. will be converted into water body, 2.16 ha. will be back filled before abandoning the mine excluding the mine facilities such as office, roads etc., Topography of the area is almost plain. Mining will be carried out to a maximum depth of about 16m below general ground level. Ground water table is at 2-10m below general ground level. Mine workings will intersect ground water table. Hydrogeological study of the area has been carried out. As per the study, total recharge is 4912 ha.m and net ground water draft is 1841 ha.m whereas groundwater availability is 4175 ha.m. There are no surface water bodies/nallahs etc. flowing in the lease area. There are no reserve forests within 10 km of the lease area. There are no wildlife sanctuaries, national parks, bio-sphere reserves, heritage sites etc. within 10 km of the lease area. The mineral reserve is 1.42 million tonnes. Life of the mine at proposed rate of production will be 15 years. Method of mining will be open cast and mechanized. Concurrent backfilling of waste in the worked out pits and reclamation of backfilled area will be undertaken. Drilling and blasting will be involved. Water requirement will be 130 KLD which will be met from the ground water source and mine pit water. Solid waste of about 5.02 lakh tonnes will be generated during the entire life of the mine. No relocation and rehabilitation of population will be involved. Approval of Mining plan (including mine closure plan for 189.45 ha.) was accorded by IBM on 24.09.2008. Cost of the project will be Rs.2.20 crores.

The project activity is listed at 1(a) in the schedule of EIA Notification, 2006 and is of B1 category. Public Hearing was conducted on 6.5.2008 at District Collector's Office, Ariyalur for the project as required under the EIA Notification.

The SEAC after due consideration of the relevant documents, information furnished by you, has recommended to the SEIAA, Tamil Nadu to grant Environmental Clearance to this project subject to certain conditions. The proposal was considered by the SEIAA, Tamil Nadu in its meeting held on 15.5.09 and as the public consultation was also carried out as required for the project, the SEIAA hereby accords Environmental Clearance to this project under the provisions of EIA Notification dated 14th September 2006 based on the recommendations of the SEAC subject to the strict compliance of the following terms and conditions:

A. Specific conditions:

1. Consent for establishment shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu before taking up of any construction activity at the site.
2. No two pits shall be simultaneously worked i.e before the first pit is exhausted and reclamation work completed, no mineral bearing area shall be worked.
3. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any ore bearing area is worked.

4. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
5. Hydro-geological study of the area shall be reviewed annually and results submitted to the SEIAA, TNPCB 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.
6. 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 the sources of dust generation as applicable) and records submitted to the SEIAA and TNPCB.
7. Shelter Belt i.e Wind Break of 30 m width and consisting of at least 5 tiers around the lease area facing the school/agricultural fields (if any in the vicinity) shall be raised.
8. A 50 m barrier of no mining zone all along the side(s) facing the nallah (if any) passing through the lease area or if passing adjacent to the lease area shall be demarcated and thick vegetation of native species raised. Status of implementation shall be submitted to the SEIAA and Regional Office of the Ministry on half yearly basis.

9. Need based assessment for the near by villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects/tools such as 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. Status of implementation shall be submitted to the Ministry every six months.

10. Land – use pattern of the nearby villages shall be studied and 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 Regional office of the Ministry within six months. Annual status of implementation of the plan and expenditure thereon shall be reported to the Regional Office of the Ministry from time to time.

11. Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped.

12. Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the SEIAA and Regional Office of the Ministry within six months and thereafter every year from the next consequent year.

13. Measures for prevention and control of soil erosion and management of silt 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.
14. 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 nullahs (if any) flowing through the Mine Lease area and silts arrested. De-Silting at regular intervals shall be carried out.
15. Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and for waste dump and sump capacity shall 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 shall 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 de-silted at regular intervals.
16. Ground water in the core zone shall be regularly monitored for contamination and depletion due to mining activity and records maintained. The monitoring data shall be submitted to the regional office of the mining activity and records maintained. The monitoring data shall be submitted to the regional office of the Ministry regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be set up and records maintained.

17. Cultivable waste land (within 5 km of the lease) shall be identified and fodder farming or other suitable productive use of waste land shall be taken up in phased manner. Status of implementation shall be submitted to the SEIAA, TNPCB and Regional office of the Ministry.
18. Adequate protection against dust and other environmental pollution arising due to mining activity shall be made so that human habitation located near the lease area (as applicable) are not adversely affected. The status of implementation shall be reported to the Regional Office of the Ministry and work shall be completed before start of mining.
19. Monitoring of soil samples for assessment of transformation to acidic state or contamination due to mining activity (as applicable) shall be regularly conducted and records maintained.
20. Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Transportation shall be done only during day time.
21. 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 with follow up action wherever required.

22. 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.

23. 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 30m, each stage shall preferably be of 10m 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.

24. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the SEIAA, TNPCB and Regional Office of the Ministry of Environment & Forests on six monthly basis.

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

26. Adequate plantation shall be raised in the ML area, haul roads, OB dump sites etc. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/Agriculture Department. Herbs and shrubs shall also form part of afforestation programme besides tree plantation. The density of the trees shall not be less than 2500 plants per ha. The company shall involve local people with the help of Self Help Groups for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the SEIAA and Regional Office of the Ministry every year.

27. Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. 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 shall be regularly sent to the SEIAA, Regional office of the Ministry, Central Ground Water Authority and Regional Director, Central Ground Water Board.

28. Adequate air monitoring stations shall be installed in areas of human habitations near the mine and the results of ambient air quality shall be maintained and regularly submitted to the TNPCB and the Regional Office of the Ministry.

29. The waste water from the mine shall be treated to conform to the standards prescribed by the TNPCB before discharging in to the natural stream. The discharged water from the Tailing Dam (if any) shall be regularly monitored and report submitted to the Regional Office of the Ministry of Environment & Forests, Central Pollution Control Board and the Tamil Nadu Pollution Control Board.
30. 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 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. The trucks transporting ore shall not pass through wild life sanctuary.
31. Prior permission from the Competent Authority shall be obtained for extraction of ground water, if any.
32. Action plan with respect to suggestions/improvements and recommendations made during public consultation/hearing shall be submitted to the SEIAA, TNPC Board and the Regional Office of the Ministry of Environment & Forests within six months.
33. A final mine closure plan, along with details of Corpus Fund, shall be submitted to the SEIAA, TNPCB, Regional Office of the Ministry of Environment & Forests and Tamil Nadu Mines & Minerals Depot 5 years in advance of final mine closure for approval.

34. The proponent shall obtain the renewal of mining lease before commencing, the operation of the mines.

B. General conditions:

1. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.
2. No change in the calendar plan including excavation, quantum of mineral and waste shall be made.
3. 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.
4. Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO₂, NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the Tamil Nadu Pollution Control Board.
5. Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Regional Office located at Bengaluru and the Tamil Nadu Pollution Control Board once in six months.

6. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc, shall be provided with ear plugs/muffs.
7. Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed by the TNPC Board from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
8. Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.
9. Provision shall be made for 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.
10. 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.
11. The project authorities shall inform to SEIAA and the Regional Office of the Ministry located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

12. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the SEIAA, TNPCB and Regional Office located at Bengaluru.
13. The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the SEIAA, Regional Office of MoEF, Bengaluru the Zonal Office of CPCB, Bengaluru and TNPCB. This shall also be put on the website of the Company by the proponent.
14. The Environmental Statement for each financial year ending 31st March in Form-V as is mandated has to be submitted by the project proponent to the Tamil Nadu 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 EC conditions and shall also be sent to the Regional Office of MoEF, Bengaluru by e-mail.
15. The proponent shall upload the status of compliance of the stipulated EC 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 MoEF, Bengaluru, the Zonal Office of CPCB, Bengaluru and the TNPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x(ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
16. A copy of the clearance letter shall be sent by the proponent to the Commissioner, Ariyalur Panchayat Union and the Local NGO, if any, from whom suggestions /representations, if any, were received while processing the proposal.

17. The Tamil Nadu 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.
18. The project authorities shall 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 Tamil Nadu Pollution Control Board and also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same shall be forwarded to the Regional Office of the Ministry, Bengaluru.
19. The SEIAA may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
20. 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.
21. 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.

22. The environmental clearance is valid for thirty years from the date of issue or the date upto which mining lease granted by Govt. is valid, which ever is earlier.

Member Secretary
SEIAA/T.N

Copy to:

1. The Principal Secretary to Government, Environment & Forests Dept,
Govt.of Tamil Nadu, Fort St.George, Chennai-600 009.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan,
CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110 032.
3. The Member Secretary, Tamil Nadu Pollution Control Board,
76, Mount Salai, Guindy, Chennai-600 032.
4. The CCF, Regional Office, Ministry of Environment & Forest (SZ),
Kendriya Sadan, IV floor, E&F wings, 17th Main Road,
Koramangala II Block, Bangalore – 560 034.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests,
Paryavaran Bhavan, CGO Complex, New Delhi 110 003.
6. The Commissioner, Ariyalur Panchayat Union.
7. Stock File.