

Chettinad Cement/ Tamilnadu/Sendurai Mine  
/EC Compliance/ Apr'2021 - Sep'2021/2021-22/ 321

26<sup>th</sup> Nov, 2021

**The Director**

Regional Office [SEZ]

Ministry of Environment, Forest and Climate Change, GoI,  
#34, HEPC Campus, Cathedral Garden Road  
Nungambakkam, Chennai -600 034

Sir,

**Sub:** Submission of Environmental Clearance & Compliance Report (Apr'2021 - Sep'2021) – Chettinad Cement Corporation Private Limited – Sendurai Limestone Mine (21.925 ha) with a capacity of 0.33 million tons per annum at Sendurai Village, Sendurai Taluk, Ariyalur District, Tamilnadu

**Ref:** Environmental Clearance granted by SEIAA, Tamilnadu vide Letter No: SEIAA/TN/F-605/EC/1 (a)/1563/2012 dated 27<sup>th</sup> Oct 2014

We enclose herewith the Six Monthly Environmental Clearance Compliance & Environmental Monitoring reports, as detailed below, for the Sendurai Limestone Mine (21.925 ha) located at Sendurai Village, Sendurai Taluk, Ariyalur District, Tamilnadu for the period from Apr'2021 - Sep'2021.

- a. Environmental Clearance Compliance Report Annexure 1
- b. Environmental Monitoring Report comprising of
  - i. Ambient Air Quality Monitoring - Consolidated Report - Annexure 2
  - ii. Noise Level Monitoring - Consolidated Report - Annexure 3
  - iii. Ground Water Quality Monitoring Report- Annexure 4

Yours faithfully,

for Chettinad Cement Corporation Private Limited



A. Amalraj

Joint President (Works)

Copy to :

Zonal Office, CPCB, Bangalore  
Member Secretary, TNPCB, Chennai.  
JCEE, TNPCB, Trichy  
DEE, TNPCB, Ariyalur



## Chettinad Cement Corporation Private Limited

## Sendurai Limestone Mine

Sendurai Village, Ariyalur Taluk &amp; District, Tamilnadu

**Environmental Clearance (EC) Compliance Report (Apr-21 to Sep-21)***(Environmental Clearance granted vide Letter No : SEIAA/TN/F-605/EC/1 (a)/1563/2012 Dated 27.10.2014**for a Mining Capacity of 0.33 million ton per annum & Mining Lease Area of 21.925 ha)*

## Part A - Conditions for Pre-Construction Phase

S.No	Condition (Pre-Construction Phase)	Compliance Status
i.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned 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 TNPCB and may also be seen at website of the SEIAA, TN at <a href="http://seiaa.tn.gov.in">http://seiaa.tn.gov.in</a> and a copy of the same should be forwarded to the Regional Office of the MoEF located at Chennai.	Advertisement in two local newspapers widely circulated in the region, one in English (New Indian Express) and the other in Tamil (Dinamani) published on 08.11.2014, informing the public that the project has been accorded environmental clearance and copies of clearance letter are available with the TNPCB and also can be seen at website of the SEIAA, TN at <a href="http://seiaa.tn.gov.in">http://seiaa.tn.gov.in</a> .  The copies of advertisement submitted to the Regional Office of the MoEF & CC, Chennai.
ii.	A copy of the clearance letter shall be sent by the proponent to concerned panchayat, Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.  The clearance letter shall also be put in the website of the Company by the proponent.	A copy of the Environmental Clearance letter sent to concerned Sendurai Panchayat on 10.11.2014.  The EC letter has been uploaded in the company website.
iii.	Consent to Establish shall be obtained from the Tamil Nadu Pollution Control Board (TNPCB) before start of establishment of the project and also before commencement of production.	Consent for Establishment and Consent for Operation have been obtained from TNPCB on 21 <sup>st</sup> Apr '15 and 25 <sup>th</sup> May' 17. Production commenced on 19.08.2017.



S.No	Condition (Pre-Construction Phase)	Compliance Status
iv.	Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the SEIAA,TN and the Regional Office of the MoEF at Chennai within 3 months.	As there are no rare, endemic and endangered flora and fauna found within the study area, the need to prepare and implement the conservation plan is not envisaged.
v.	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.	The copies of Corporate Environmental Policy (CEP) and the salient features of the CEP submitted to MoEFCC, Delhi and the Regional Office of the MoEF &CC, Chennai.
vi.	The project authorities should inform to the Regional Office of the MoEF located at Chennai regarding date of financial closures, the final approval of the project by the concerned authorities and the date of start of land development work.	<p>The entire fund required was met from the company's own, internally accrued funds. Hence, the requirement of informing the date of financial closure and the approval of the project to the Regional Office of the MoEF &amp; CC, Chennai is not envisaged.</p> <p>The land developmental work commenced on 5<sup>th</sup> Apr '17.</p>
vii.	An Environmental Cell comprising of at least one expert in environmental science / engineering, occupational health and social scientist, shall be created preferably at the project site itself and shall be ensured that the Head of the Cell shall Directly report to	A separate Environmental Cell has been formed to take care of EHS function and the Head of the Cell is directly reporting to the Head of the Organization for complying with environmental regulations and implementing pollution control



S.No	Condition (Pre-Construction Phase)	Compliance Status
	the head of the organization who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	measures.

**Part B - Conditions for Construction Phase**

S.No	Condition (Construction Phase)	Compliance Status
i.	Plantation shall be raised including a 7.5 m wide greenbelt in the safety zone around the mining lease, OB dump(s) along the roads, etc. by planting the native species in consultation with the local DFO/Agriculture Department. In addition, plantation shall also be raised in the backfilled and reclaimed area and around water body. The density of the tree 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.	<p>The greenbelt development work has commenced. As stipulated, 7.5 m wide greenbelt in the safety zone along the boundary of Mining Lease Area, along the roads, etc. developed by planting the native species in consultation with the local DFO/Agriculture Department. For the stabilization of the over burden, the slopes terraced with grass, legumes etc.,</p> <p>The plantation raised in the backfilled and reclaimed area. The density of the trees around 2000 plants per ha.</p> <p><b>Greenbelt Development Details</b> ML Area : 21.925 ha</p> <p><b>Recommended Greenbelt Area</b> During Mining Plan period : 1.5 ha Saplings planted so far : 9920 Extent of existing greenbelt area : 5.13 ha Area covered with greenbelt Dumps, bunds along the ML boundary Tree Density : 2000 /ha</p> <p><b>Variety of Saplings Planted</b></p> <ol style="list-style-type: none"> <li>1. Pungan</li> <li>2. Neem</li> <li>3. Pelta</li> <li>4. Pouvarasa</li> <li>5. Illupai</li> <li>6. Teak</li> </ol> <p><b>Greenbelt Development Plan</b> Greenbelt development is being carried out progressively. Herbs and shrubs will also be developed.</p>



S.No	Condition (Construction Phase)	Compliance Status
ii.	Garland drains, catch drains, check dams and siltation ponds of appropriate size shall be constructed for the working pit, temporary OB and mineral dumps to prevent runoff water and flow of silt / sediments. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de silted particularly after the monsoon and maintained properly.	Garland drains and catch drains of Length 120 meter, width 1.5 meter, 1.5 meter size have been constructed for the working pit and the temporary OB dump to prevent runoff water and flow of silt/sediments. The rainwater is being diverted to the siltation sump. After settling, the rainwater collected is being utilized for watering the Mine Area, Roads, Greenbelt etc., The drains being regularly desilted after the monsoon and maintained properly.
iii.	Dimension of the retaining wall at the toe of the OB dump(s) and the OB benches within the mine to check run-off and siltation should be based on the rain fall data.	A bund has been provided around the OB dump. Garland drain and siltation sump provided to arrest flow of sediments. After settling, the rainwater collected is being utilized for watering the Mine Area, Roads, Greenbelt etc.,
iv.	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.	The rainwater collected in the proposed sump at the bottom most bench of the Mine Pit, which help to augment ground water resources in the area.
v.	The effective safeguard measures shall be provided to control particulate dust level in critical areas, transfer points and the haul road within the mine area.	As the proposed activity is mining, construction of Office Room, Toilet and Septic Tank are only involved. Materials required for the construction of above mentioned facilities, have been handled by taking adequate care to avoid dust generation. While carrying out mining operation, the following safeguard measures are being followed to control particulate dust level as given below.  <ul style="list-style-type: none"> <li>a. Wetting of the places of operation</li> <li>b. Water Sprinkling on the haul roads within the Mine Area</li> <li>c. Water Sprinkling while handling materials containing finer particles</li> <li>d. Covering of materials with tarpaulin before commencement of transport</li> <li>e. Speed Control</li> </ul>



S.No	Condition (Construction Phase)	Compliance Status
		<p>f. Avoiding overloading g. Good maintenance of vehicles and mining machinery</p> <p>The mined Limestone is being transported using trucks to the Cement Plant and no conveyors (hence, no transfer points) are proposed to be installed. The crushing of Limestone is being done at Cement Plant.</p>
vi.	<p>Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas, including all the transfer points, shall also have efficient dust control arrangements. These shall be properly maintained and operated.</p>	<p>During construction of Office Room, Toilet and Septic Tank, no mineral handling was involved. Materials required for the construction of above mentioned facilities, have been handled by taking adequate care to avoid dust generation.</p> <p>While carrying out mining operations, Water Sprinkling is being done while handling materials containing fine particles. Tankers used for water sprinkling are being maintained in good condition.</p> <p>No conveyor to transport the mined Limestone to the Cement Plant. Hence, there no transfer points, which need dust control system.</p>
vii.	<p>The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water, required for the project.</p>	<p>Application submitted to Water Resources Department, Tamilnadu, the authority for granting permission, for using rainwater collected in the Mine Pit Sump.</p>
viii.	<p>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.</p>	<p>Local labourers have been engaged to construct Office Room, Toilet &amp; Septic Tank for the Mine employees. Hence, no temporary housing has been provided.</p>
ix.	<p>As proposed, Rs.5 lakhs/annum and Rs.3 lakhs shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and judiciously used to implement the condition stipulated by the SEIAA,TN as well as the State Government. A time</p>	<p>As the proposed activity is mining, construction of Office Room, Toilet and Septic Tank are only involved. Materials required for the construction of above mentioned facilities, have been handled by taking adequate care to avoid dust generation.</p>



S.No	Condition (Construction Phase)	Compliance Status
	bound implementation schedule shall be submitted to the SEIAA,TN and the regional Office of the MoEF at Chennai to implement all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	While carrying out mining, for implementing environmental pollution control measures stipulated by the SEIAA, TN as well as the State Government, Rs.5 lakhs/annum and Rs.3 lakhs have been earmarked towards total capital cost and recurring cost/annum respectively. The funds so provided will not be diverted for any other purpose. The proposed control measures viz., water sprinkling, greenbelt development etc., are being ensured. The greenbelt development is also being ensured. In this compliance status report itself, the commitment to ensure implementation of all the conditions stipulated in the Environmental Clearance has been indicated against each.
x.	For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed, CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	CSR Committee has been formed, which includes Local Panchayat Chairman, Villagers and Company Representatives. CSR activities will be periodically monitored by the CSR Committee. Evaluation of CSR activities by an independent external agency will also be ensured.

#### Part C - Conditions for Post Construction Phase/Operation Phase

S.No	Condition (Post Construction Phase/Operation Phase)	Compliance Status
i.	Open-cast fully mechanized mining method shall be adopted as reported for the mining of Limestone.	Open-cast, non - conventional, fully mechanized mining method is being adopted for mining Limestone.
ii.	Drills shall either be operated with dust extractors or equipped with water injunction system.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
iii.	Controlled blasting shall be practiced. The mitigative measures for control of ground vibration and to arrest fly rocks and boulders should be implemented.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
iv.	Blasting shall be carried out using optimum burden, charge and milli-second delay detonators.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.



S.No	Condition (Post Construction Phase/Operation Phase)	Compliance Status
v.	The optimum charge for blasting shall be determined based on vibration study. Blasting operation shall be carried out only during the day time. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
vi.	The ground vibration generated by blasting during mining operation shall be within the standards prescribed by DGMS for controlled blasting.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
vii.	Ground vibration shall be periodically monitored during blasting using a Minimate Seismograph.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
viii.	The impacts shall be minimized by choosing proper detonating system, optimizing total charge and charge/delay, use of Non-electric system of blasting etc.	Not applicable. As non- conventional mining method is being adopted, no drilling and blasting are involved.
ix.	Mine working shall be restricted up to 15.5 m below ground level as per the mine plan period.	Mine working restricted up to 15.5 m below ground level as per the approved Mining Plan.
x.	The mine working should not intersect ground water table during the mine plan period. For working below water table, necessary prior permission shall be obtained from MoEF for which clearance from CGWA for pumping of ground water and detailed hydro-geological study will be a pre-requisite.	No intersection of mining activities below ground water table during the Mine Plan Period. If there is a need to work below the water table, necessary prior permission will be obtained from MoEF & CC, & Water Resources Department, Tamilnadu. A detailed Hydro-Geological Study also carried out.
xi.	The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The top soil shall be used for land reclamation and plantation.	The top soil is being stored at earmarked site only and the same is being used for plantation.
xii.	The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site (s) only and it should not be kept active for a long period of time and their phase-wise stabilization shall be carried out. Proper terracing of OB dump(s) shall be carried out. The over burden dump(s) shall be scientifically vegetated with suitable native species to prevent erosion and surface run off.	The over burden (OB) generated during the mining operation is being stacked at earmarked dump site only and routinely filled in the mined out area and carried out. Phase-wise stabilization.  Proper terracing of OB dump(s) carried out. The over burden dump(s) scientifically vegetated with suitable



S.No	Condition (Post Construction Phase/Operation Phase)	Compliance Status
	<p>In critical areas, use of geo textiles shall be undertaken for stabilization of the dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining, Compliance status should be submitted to the SEIAA, TN and the Regional Office of the Ministry of Environment and Forest (MoEF), Chennai on six monthly basis.</p>	<p>native species to prevent erosion and surface run off. In critical cases, geo-textiles used for stabilization of dumps.</p> <p>Monitoring and management of rehabilitated areas continued till the vegetation becomes self-sustaining.</p> <p>Compliance status submitted to the SEIAA, TN and the Regional Office of the Ministry of Environment, Forest &amp; Climate Change (MoEF &amp; CC), Chennai on six monthly basis.</p>
xiii.	<p>The loose solids should be kept separately from flowing water and flow of effluents to nearby areas outside the leasehold shall be prevented. These paved drains along with arrangements for overburden dumps and their drainage may be clearly depicted on a contour map of the mining area.</p>	<p>Garland drains/trenches and siltation sump have been provided to ensure that solid particles are separated from the water flow.</p> <p>The domestic effluent generated is treated in septic tank, followed by dispersion trench. No generation of effluent from mining activities. Hence, there is no possibility of effluent flowing to nearby areas outside the leasehold.</p> <p>The garland drains around the over burden dumps clearly depicted on the contour map of the Mining Lease.</p>
xiv.	<p>The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for conservation and protection of the 1st and 2nd order streams, emanating or passing through the mine lease during the course of mining operation.</p>	<p>No natural watercourse and water resources obstructed due to any mining operations.</p> <p>No water streams are emanating or passing through the ML Area.</p>
xv.	<p>Appropriate measures shall be taken for treatment of the upper catchment of the mine lease area.</p>	<p>Garland drains/trenches and siltation sump have been provided to ensure that solid particles are separated from the water flow.</p>



S.No	Condition (Post Construction Phase/Operation Phase)	Compliance Status
xvi.	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points.	Regular water sprinkling is being carried out in areas prone to air pollution such as mining area, loading points, top soil & over burden unloading areas, haul roads within the Mining Lease Area etc.,  No crusher, screening plant, or conveyors and transfer points within the Mining Lease Area.
xvii.	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 area shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Vehicular emissions is being kept under control by ensuring speed control, good maintenance of the vehicles, avoiding over-loading, etc., and regular monitoring. Vehicles are also being checked for PUC certificate at entry point to Mine. Mining Machinery and Vehicles are regularly being maintained. The mined Limestone transportation is being carried out after covering the same with tarpaulin.
xviii.	Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Water sprinkling is being carried out on haul roads.  The Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board.
xix.	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.	Fugitive dust emissions from all the sources are regularly being controlled. Water spraying is being done on haul roads, loading and unloading points. The water sprinkling arrangement is being maintained well to ensure its effectiveness.  No conveyor, no transfer points are envisaged.
xx.	Measures shall be taken for control of noise levels as per norms in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Measures like silencers, greenbelt along the boundary of ML Area and good maintenance of Mining Machinery & Vehicles are being ensured for noise control and Ear plug/Muffs are being provided to the operators of HEMM.
xxi.	Industrial waste water (workshop and waste water from mine) should be properly collected, treated so as to conform to the standards	No generation of industrial effluent from mining. No workshop has been proposed in the ML Area. Hence, no need for



S.No	Condition (Post Construction Phase/Operation Phase)	Compliance Status
	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.	providing treatment system as no industrial waste water will be generated.
xxii.	Personnel working in dusty areas should wear protective respiratory devices and they should also 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.	Adequate training and information on safety & health aspects are being given to the Personnel working in the Mine. Personal Protective Equipment (PPE) are being issued to the Mines Personnel and the usage of the same by them is also being ensured. Occupational health surveillance program of the workers undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
xxiii.	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For this purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Pre-Placement Medical Examination has been carried for the Mines Personnel. Periodical Medical Examination for the workers engaged in Mining activity carried out and records being maintained. For this purpose, Schedule of Health Examination for the Workers drawn and followed accordingly.
xxiv.	Regular medical check-up for mine workers and nearby residents around the project site involving community medical centre / NIMH shall be conducted.	Regular medical check-up for Mine Workers and nearby Community around the project site will be conducted.
xxv.	The company shall stress upon the preventive aspects of occupational health.	OHS training to create awareness on occupational health and follow the precautions to prevent incidences of occupational health disorders are being given to the Mines Personnel.
xxvi.	The project proponent shall undertake all the commitments made during the public hearing and effectively address the concerns raised by the locals in the public hearing as well as during consideration of the project, while implementing the project.	The commitments made during the public hearing to address the concerns raised by the locals in the public hearing as well as during consideration of the project are being implemented.



**Part D - Conditions for Entire Life of the Project**

S.No	Condition (Entire Life of the Project)	Compliance Status
i.	Regular monitoring of water quality upstream and downstream of perennial nallahs falling in the impact zone shall be carried out and record of monitoring data should be maintained and submitted to SEIAA, TN, the Regional Office of the MoEF, Chennai, Central Groundwater Authority, Regional Director, Central Ground Water Board, Tamilnadu Pollution Control Board and Central Pollution Control Board.	Only few seasonal nallahs/odai exists nearby.
ii.	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 installing 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 SEIAA, TN and the Regional Office of the MoEF, 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.	<p>Monitoring of ground water quality, on a quarterly basis, established a network of existing wells. Two piezometers installed to monitor ground water level.</p> <p>The regular periodic monitoring, four times in a year, once in each season, ensured. The data collected regularly submitted to the SEIAA, TN and the Regional Office of the MoEF &amp; CC, Chennai, the Central Ground Water Authority and the Regional Director, Central Ground Water Board.</p> <p>If groundwater table is getting depleted due to the mining activity, necessary corrective measures will be carried out.</p>
iii.	Depth of water table of the wells located inside the mining area and wells located around the monitoring area shall be monitored regularly.	There is no well inside the ML Area. The depth of water table of the wells located around the ML Area monitored.
iv.	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 the MoEF, Chennai and SEIAA, TN.	Regular monitoring of well water levels and water quality of the wells in the locations furnished in the EIA report ensured during pre-monsoon and post monsoon period and the data collected regularly submitted to the Regional Office of the MoEF & CC , Chennai and SEIAA, TN.
v.	Regular monitoring of free Silica in the dust will be carried out and records maintained. It shall be ensured that the levels of silica do not	Regular monitoring of free Silica in the dust carried out and records will be maintained.



S.No	Condition (Entire Life of the Project)	Compliance Status
	exceed the prescribed limit. The workers will be provided with personal protective measures to guard against inhaling silica dust.	The workers are provided with personal protective equipment to guard against inhaling silica dust.
vi.	The critical parameters such as RSPM (PM 25, PM 10) and Nox in the ambient air within the impact zone, peak particle velocity at 300 m 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, Govt. of India, New Delhi which is available on the website of the Ministry <a href="http://www.envfor.nic.in">www.envfor.nic.in</a> shall also be referred in this regard for its compliance.	<p>The parameters such as PM<sub>2.5</sub>, PM<sub>10</sub> and NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance monitored periodically.</p> <p>The domestic effluent generated is being treated in septic tank, followed by dispersion trench. There is no generation of effluent from mining. Also, there is no discharge of effluent from Leasehold. Hence, the need to monitor effluent is not envisaged.</p> <p>The monitored data uploaded on the website of the company as well as displayed on a display board at the project site near the main gate of the company in public domain.</p> <p>The monitoring being carried out as per circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest &amp; Climate Change, Government of India.</p>
vii.	The proponent shall conduct Ambient Air Quality Monitoring Survey once in 6 months in the location furnished in the Environmental Impact Assessment Report and furnish the report to the Regional Office of the MoEF, Chennai and SEIAA, TN.	Ambient Air Quality Monitoring Survey is conducted at four locations and the reports are being furnished to the Regional Office of the MoEF & CC, Chennai and SEIAA, TN.
viii.	At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (PM <sub>2.5</sub> , PM <sub>10</sub> ) and NOx 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 Tamilnadu Pollution Control Board.	Four Ambient Air Quality Monitoring Stations have been established in the core zone and buffer zone for PM <sub>2.5</sub> & PM <sub>10</sub> and NOx monitoring.



S.No	Condition (Entire Life of the Project)	Compliance Status
ix.	Data on ambient air quality [RSPM (PM 25, PM10) and NOx] should be regularly submitted to the SEIAA, TN including the Regional office of the MoEF located at Chennai and the TNPCB / CPCB once in six months.	The monitored data on Ambient Air Quality (PM <sub>2.5</sub> & PM <sub>10</sub> and NOx) regularly submitted to the SEIAA, TN including the Regional Office of the MoEF & CC located at Chennai and the TNPCB / CPCB once in six months.
x.	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.	The water quality and Air quality in and around the project are being monitored as mentioned in the EIA report.
xi.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of scheduled species of flora as well as fauna 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.	There are no rare, endemic and endangered flora and fauna found within the study area. Hence, the need to prepare and implement the conservation plan is not envisaged.
xii.	Scheduled species of fauna found in the study area shall be monitored closely and a plan shall be prepared and implemented for their conservation.	There are no rare, endemic and endangered flora and fauna found within the study area. Hence, the need to prepare, implement and monitor the conservation plan is not envisaged.
xiii.	Annual monitoring on Bio-diversity around the project site shall be conducted and a report shall be furnished.	Annual monitoring on Bio-diversity around the project site will be conducted and a report will be furnished.
xiv.	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA, TN 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.	A Final Mine Closure Plan along with details of Corpus Fund will be submitted to the SEIAA, TN, 5 years in advance, prior to the final mine closure for approval. Mine Closure procedure will be followed as per the approved Mining Plan.
xv.	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 SEIAA, TN and the Regional Office of the MoEF located at Chennai.	The funds earmarked for environmental protection measures are kept separately and are not being diverted for any other purpose. Year wise expenditure reported to the SEIAA, TN and the Regional Office of the MoEF & CC located at Chennai. The expenditure incurred towards



S.No	Condition (Entire Life of the Project)	Compliance Status
		environmental protection measures for the period from April-21 to September-21 was Rs 2.8 lakhs.
xvi.	CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programme.	<p>CSR schemes identified and assessed based on the needs, will be implemented in consultation with the CSR Committee and the District Administration. Technical training to youth in the nearby area given to improve their employment potential. As Mine's man power requirement are very limited, the possibility of eventual employment in the project is very less.</p> <p>A separate budget of Rs 2.0 lakhs ensured for community development activities and income generating programme.</p>
xvii.	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.	<p>CSR activities, that are being carried out by the company include providing social &amp; welfare measures for the local residents &amp; nearby villages around the ML Area.</p> <p>The various CSR activities like water supply, sanitation facility, maintenance of village roads, ponds etc. taken up in consultation the District Collector and the CSR Committee.</p> <p>Funds earmarked for CSR activity will be used for that purpose only and report on implementation furnished regularly.</p>
xviii.	The project proponent shall also comply with all environmental protection measures and safeguards proposed in the EIA/EMP report. Further, the Company must undertake socio-economic development activities in the surrounding villages like community development programme, educational programme, drinking water supply and health care, etc.	<p>All environmental protection measures and safeguards proposed in the EIA/EMP report are being implemented.</p> <p>Also, the socio-economic development activities in the surrounding villages like community development programme, educational programme, drinking water supply, health care activities , etc. taken up in consultation the District Collector and the and the CSR Committee.</p>



S.No	Condition (Entire Life of the Project)	Compliance Status
xix.	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	The project proponent is contributing to the development of the neighboring villages. The CSR activities like free potable drinking water supply to the nearby villages and schools will be taken up in consultation the District Collector and the CSR Committee.
xx.	All stipulations made by TNPCB & State Government shall be strictly complied with.	The stipulations made by TNPCB & State Government are being complied with.
xxi.	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.	Full cooperation to the officer (s) of the Regional Office of MoEF & CC, Chennai will be extended by furnishing the requisite data / information / monitoring reports.
xxii.	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 SEIAA, TN the Regional Office of the MoEF, Chennai, the respective Zonal Office of Central Pollution Control Board and the Tamilnadu Pollution Control Board.	The six monthly reports on the status of compliance of the stipulated environmental clearance conditions is being uploaded in the company website as well as being submitted to the SEIAA, TN, the Regional Office of the Ministry of Environment and Forests, Chennai, the Zonal Office of Central Pollution Control Board, Bengaluru and the Tamilnadu Pollution Control Board periodically. The environmental monitoring is being carried out and the results of monitored data are being uploaded in the company website. The data will be updated periodically. The monitored data is simultaneously being sent to the SEIAA, the Regional Office of the Ministry of Environment and Forest & Climate Change, Chennai, the Zonal Office of Central Pollution Control Board, Bengaluru and the Tamilnadu Pollution Control Board.
xxiii.	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 status of compliance of the environmental clearance conditions is being uploaded in the company website as well as being submitted to the Regional Office of the Ministry of



S.No	Condition (Entire Life of the Project)	Compliance Status
	the Regional Office of the Ministry of Environment and Forests, Chennai, the respective Zonal Officer of Central Pollution Control Board and the Tamilnadu Pollution Control Board.	Environment and Forests, Chennai, the Zonal Office of Central Pollution Control Board, Bengaluru and the Tamilnadu Pollution Control Board periodically. The ambient air quality and water quality are being monitored and the results of monitored data are being uploaded in the company website. The data will be updated periodically. The monitored data is being simultaneously be sent to the Regional Office of the Ministry of Environment and Forest & Climate Change, Chennai, the Zonal Office of Central Pollution Control Board, Bengaluru and the Tamilnadu Pollution Control Board.
xxiv.	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 Officer of the Ministry of Environment and Forests, Chennai by e-mail.	The environmental statement for year ending 31 <sup>st</sup> March 2021 in Form V submitted on 24.09.2021 to the Tamilnadu Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently. The same put on the website of the company and will also be sent to the respective Regional Officer of the Ministry of Environment, Forest & Climate Change, Chennai by e-mail. The status of compliance of Environmental Clearance conditions is being uploaded on the company website.
xxv.	No change in mining technology and scope of working should be made without prior approval of the SEIAA, TN.	No change in mining technology and scope of working will be made without approval of the SEIAA, TN.
xxvi.	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	No change in the calendar plan including excavation, quantum of mineral Limestone and waste will be made.
xxvii.	The environmental clearance does not absolve the Applicant/proponent of his obligation/requirement to obtain other statutory and other administrative clearance from the concerned statutory and administrative authorities.	Guidelines noted.



S.No	Condition (Entire Life of the Project)	Compliance Status
xxviii.	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.	Guidelines noted & agreed.
xxix.	The SEIAA, Tamilnadu may alter/ modify the above conditions or stipulate any further condition in the interest of environment protection.	Guidelines noted.
xxx.	The SEIAA, TN reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	Guidelines noted and the additional conditions will also be implemented.
xxxi.	The SEIAA, TN reserves the right to revoke or suspend the Environmental clearance, if conditions stipulated are not implemented to the satisfaction of the SEIAA, TN	Guidelines noted.
xxxii.	Environmental Clearance is issued based on the details furnished as above. Concealing of 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.	Guidelines noted.
xxxiii.	The Environmental Clearance is valid for the period as that approved in the precision area communication by the Commissioner of Geology & Mining, Guindy dated 25.02.2011 for a period of 20 years.	Guidelines noted.
xxxiv.	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, Environment (Protection Act) 1986, the Public Liability 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/ Madras High Court or any other Court of Law relating to the subject matter.	Guidelines noted.
xxxv.	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 National Green Tribunal Act 2010.	Noted.



For Chettinad Cement Corporation Private Limited



A.Amalraj.

Joint President (Works)



Chettinad Cement Corporation Private Limited -Sendurai Limestone Mine													
Sendurai Village , Ariyalur District, Tamilnadu State													
Ambiant Air Quality Monitoring- Consolidated Report (April'2021 - Seprember'2021)													
S.No	Location	PM <sub>10</sub> (µg/m <sup>3</sup> )			PM <sub>2.5</sub> (µg/m <sup>3</sup> )			SO <sub>2</sub> (µg/m <sup>3</sup> )			NOx (µg/m <sup>3</sup> )		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	Sendurai Mines -Mines Office	51.8	47.6	49.1	22.9	18.5	20.7	10.2	8.1	9.4	18.1	10.1	14.1
2	Labour Shed	58.3	46.1	51.6	23.6	16.1	20.4	11.9	7.6	9.3	14.7	14.1	14.5
3	Sendurai	57.9	49.7	54.7	19.7	18.8	19.2	11.1	9.0	10.1	17.4	10.9	13.9
4	Villupuram Village	59.1	45.6	52.6	22.5	18.1	20.0	10.6	9.0	9.6	16.1	10.6	13.4
5	Maruvathur Village	46.5	46.5	46.5	25.4	25.4	25.4	8.6	8.6	8.6	14.1	14.1	14.1
6	Nakkambadi Village	49.8	49.8	49.8	24.2	24.2	24.2	7.4	7.4	7.4	13.8	13.8	13.8
7	Rayampuaram Village	55.4	55.4	55.4	21.2	21.2	21.2	9.7	9.7	9.7	12.7	12.7	12.7
8	Unjini Village	49.8	49.8	49.8	21.2	21.2	21.2	7.7	7.7	7.7	11.6	11.6	11.6
Norm		100 µg/m <sup>3</sup>			60 µg/m <sup>3</sup>			80 µg/m <sup>3</sup>			80 µg/m <sup>3</sup>		

for Chettinad Cement Corporation Private Limited

  
A Amalraj  
Joint President (Works)





Chettinad Cement Corporation Private Limited -Sendurai Limestone Mine								
Sendurai Village , Ariyalur District, Tamilnadu State								
Noise Level Monitoring- Consolidated Report (April'2021 to September'2021)								
S.No	Location	UoM	Day			Night		
			L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>
Within the Premises								
1	Mines Office	dB(A)	62.4	63.6	62.2	57.6	60.9	59.4
2	Loading Area	dB(A)	63.2	65.9	63.9	58.4	58.3	60.2
Limit (L <sub>eq</sub> )		dB(A)	85			85		
S.No	Location	UoM	Day			Night		
			L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>
Outside the Premises								
1	Sendurai Village	dB(A)	46.3	52.6	50.7	36.5	41.3	39.1
2	Vilupurankurichi Village	dB(A)	46.7	51.7	49.7	36.1	40.8	39.1
Limit (L <sub>eq</sub> )		dB(A)	55			45		

for Chettinad Cement Corporation Private Limited

  
A Amalraj  
Joint President (Works)





Chettinad Cement Corporation Private Limited - Sendurai Limestone Mine						
Sendurai Village, Ariyalur District, Tamilnadu						
Ground Water Quality Monitoring Report (April'2021-September'2021)						
S.No	Parameter	UoM	GW1	GW2	SW3	Limit
			Jul-21	Aug-21	Aug-21	
1	pH	-	7.54	7.94	7.3	5.5 - 9.0
2	Temperature	Deg C	31.5	31.9	30.9	40
3	Particle size for TSS	-	100%	100%	100%	Shall pass 850 micron IS Sieve
4	TSS	mg/l	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	100
5	TDS	mg/l	82	688	441	2100
6	Chloride as Cl	mg/l	23	200	190	1000
7	Sulphide as S	mg/l	BLQ	BLQ	BLQ	2
8	Sulphate as SO <sub>4</sub>	mg/l	12.2	91	84	1000
9	Fluride as F	mg/l	0.27	0.22	0.14	2
10	Sodium	mg/l	13	89	50	-
11	Copper	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	3
12	Zinc as Zn	mg/l	BLQ	BLQ	BLQ	1
13	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	1
14	Oil & Grease	mg/l	BLQ	BLQ	BLQ	10
15	Boron as B	mg/l	0.318	0.077	0.643	2
16	BOD 3 days 27°C	mg/l	BLQ	BLQ	BLQ	30
17	COD	mg/l	BLQ	BLQ	BLQ	250
18	Total Residual Chlorine	mg/l	BLQ	BLQ	BLQ	1
19	Arsenic as As	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	0.2
20	Cadmium as Cd	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	2
21	Total Chromium as Cr	mg/l	BLQ	BLQ	BLQ	2
22	Hexavalant Chromium	mg/l	BLQ	BLQ	BLQ	0.1
23	Lead as Pb	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	0.1
24	Selenium as se	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	0.05
25	Mercury as Hg	mg/l	BLQ(LOQ:0.0005)	BLQ(LOQ:0.0005)	BLQ(LOQ:0.0005)	0.01
26	Pesticides	mg/l	BLQ	BLQ	BLQ	---
27	Free Ammonia as NH <sub>3</sub>	mg/l	BDL(DL:0.5)	BDL(DL:0.5)	BDL(DL:0.5)	5
28	Dissolved Phosphate as P	mg/l	BLQ	BLQ	BLQ	5
29	Total Kieldahl Nitrogen as N	mg/l	BLQ	BLQ	BLQ	100
30	Cyanide as CN	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	0.2
31	Nickel as Ni	mg/l	BLQ	BLQ	BLQ	3
GW1: Sendurai Village GW 2: Viluppanankurichi Village				DLQ: Dclow Qualification Limit.		
SW3: Mines Sump Water				BDL:Below Detetion Limit,		

for Chettinad Cement Corporation Private Limited


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