

CCCPL/TN/ARN/EC Compliance/ Oct'2022 - Mar'2023/22-23/

The Joint Director
Ministry of Environment, Forest & Climate Change
Government of India
IRO, 1st Floor, Additional Office Block for GPOA,
Shastri Bhawan, Haddows Road, Nungambakkam
Chennai - 600 006.

Sir,

Sub: Submission of Environmental Clearance (EC) Compliance Report (Oct'2022 - Mar'2023) –
Arungal Limestone Mine (67.73 ha) of Chettinad Cement Corporation Private Limited at
Arungal Village, Ariyalur Taluk & District, Tamilnadu.

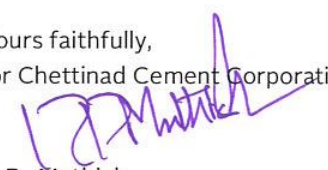
Ref: EC amendment granted by MoEF vide Letter No. J-11015/206/2009 -IA II.(M) dated
01.01.2020

We submit herewith the Six Monthly Environmental Clearance Compliance Report pertaining to our
Arungal Limestone Mine (67.73 ha) at Arungal Village, Ariyalur Taluk & District, Tamilnadu, for the
period from Oct'2022 - Mar'2023.

- 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
 - iv. Environment & Safety Management Cell Committee – Annexure 5
 - v. TNPCB AAQ survey report – Annexure 6
 - vi. Ban Plastic Awareness – Annexure 7

Kindly Acknowledge the receipt of the same.

Yours faithfully,
for Chettinad Cement Corporation Private Limited


R. P. Muthiah
Vice President (Works)

Copy to:

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

Chettinad Cement Corporation Private Limited

Ariyalur Trichy Road, Keelapalur Post,
Ariyalur Dist - 621707, Tamilnadu, India.
T + 91 4329 250009
F + 91 4329 250011, 250013

CIN : U93090TN1962PTC004947

Regd. Office : Chettinad Towers,
603, Anna Salai, Chennai - 600 006.
T + 91 44 2829 2727, 42951800 (100 lines)
F + 91 44 2829 1558

E : ariyalur@chettinadcement.com
www.chettinad.com

Chettinad Cement Corporation Private Limited

Arungal Limestone Mine

Arungal Village, Ariyalur Taluk & District, Tamilnadu

Environmental Clearance Amendment Compliance Report (October 22 – March-23)

EC amendment granted by MoEF vide Letter No. J-11015/206/2009 -IA II.(M) dated 01.01.2020 for a Limestone Mining Capacity of 0.8 million ton per annum over a Mining Lease Area of 67.73 ha)

Standard conditions: As Ministry's O.M. No 22-34/2018 –IA.III dated 08.01.2019

I	Statutory Compliance	Compliance Status
1	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.	Conditions noted.
2	The Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.	All the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations were complied.
3	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.	Conditions noted.
4	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	<p>Complied.</p> <p>With reference to the MoEF notification (S. O. 1909(E) dt. New Delhi, the 31st May, 2019, the extent of Karaivetti Eco-sensitive Zone varies from 0.105 kilometers to 0.891 kilometers around the Karaivetti Bird Sanctuary and our Arungal Limestone mines falls at 3.7 KM i.e. out of Eco sensitive Zone of Karaivetti bird Sanctuary.</p> <p>We have received a letter from Principal Chief Conservator of Forests, Chennai for Karaivetti Bird Sanctuary location vide letter Ref.No.WL5[A]/34791/2019 dt: 20.08.2019,</p>



		<p>directed District Forest Officer to examine the condition.</p> <p>Based on the above PCCF letter, we have obtained a NOC letter from District Forest Officer vide letter No.: C No.488/2012/P dt: 13.09.2019, stating that, "the project site is located away from the Eco sensitive zone Boundary of Karaivetti bird sanctuary". Hence, NOC from NBWL is not applicable for this mining project.</p>
5	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.	<p>Complied.</p> <p>Forest Clearance is not applicable for our project.</p>
6	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.	<p>Complied.</p> <p>We had obtained Consent to Operate from Tamil Nadu State Pollution Control Board before commencement of Mining activity and the same was renewed vide Air Consent order No. 2208243539088 Water Consent order No. 2208143539088 dt.23.05.2022 and the conditions stipulated are being effectively implemented.</p>
7	The PP shall adhere to the provision of the Mines Act,1952, Mines and Mineral (Development &Regulation), Act,2015and rules & regulations made thereunder. PP shall adhere to various circulars issued by Directorate General MinesSafety (DGMS) and Indian Bureau of Mines from time to time.	<p>Complied.</p> <p>The provision of MMDR Act 2015 and rules and regulations made thereunder and also circulars issued by DGMS and IBM are compiled from time to time.</p>
8	The Project Proponent shall obtain consents from all the concerned land owners,before start of mining operations, as per the provisions of MMDR Act,1957 andrules made there under in respect of lands which are not owned by it.	<p>Complied.</p> <p>The entire land belong to our company and the Mining Lease has been granted vide Rc No.10047/MM1/2008 dated 19.03.2012 by Department of Geology & Mining of the State Government of Tamilnadu for granting approval for Limestone Mining.</p>
9	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA. II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".(M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of	<p>Guidelines Noted.</p> <p>There is no habitation in and around the Mining lease area and mitigation measures are followed where ever required.</p>



		withdrawal of Ground water from own Bore well.
11	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	Complied. A copy of the Environmental Clearance letter was submitted to Arungal Panchayat.
12	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Guidelines Noted.
13	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.	Complied. Advertised in Dinamani, (Tamil Newspaper), in Indian Express, (English Newspaper) on 06.01.2020 The advertisement copy in both Tamil & English were uploaded online.
14	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the Para 11of EIA Notification,2006 as amended from time totime.	Condition noted.
II	Air quality monitoring and preservation	Compliance status
15	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1(one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, air pollution viz. PM ₁₀ , PM _{2.5} , NO ₂ , CO and SO ₂ etc, as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	Complied. We have installed online Monitoring stations & the monitored data were displayed in the Mine site. Ambient Air quality monitoring is being carried out with NABL accredited external agency periodically at a regular interval for the location in consultation with the Tamil Nadu Pollution control Board guidance. Reports being submitted to TNPCB on regular basis. TNPCB survey report vide letter no. 69/AAQS/2022-23 DT. 19.01.2023 is enclosed as Annexure- 6 and values are within the limit.



16	<p>Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM₁₀ and PM_{2.5} are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.</p>	<p>Complied. The following control measures were adopted to control the dust level.</p> <ol style="list-style-type: none"> Water Sprinkling by water tanker while handling materials containing finer particles Water sprinkling by water tanker on the haul roads within the mine area. Covering of materials with tarpaulin before commencement of transport. Ensuring Speed Control. Avoiding overloading. Good maintenance of vehicles and mining machinery <p>There are no transfer points as no conveyor has been planned. The Ambient Air Quality parameters were monitored and confirmed to the norms prescribed by the Central Pollution Control Board.</p>
III	Water quality monitoring and preservation	Compliance status
1	<p>In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.</p>	<p>Complied. The mining operation is being restricted to above ground water table and there is no intersection of groundwater table at any point of time.</p>
2	<p>Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p>	<p>Complied. There is no disturbance to any water bodies in and around the village and we harvest the rainwater by deepening sump in the pit. The periodic monitoring, at least four times in a year as stipulated was carried out. The data thus collected was submitted regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office at Chennai, State Ground Water Board.</p>



3	<p>Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p>	<p>Complied.</p> <p>Regular monitoring of ground water level and quality is being carried out in and around the Mining Lease Area by establishing a network of existing wells and with installed Piezometers.</p> <p>The periodic monitoring, at least four times in a year as stipulated was carried out. The data thus collected was submitted regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office at Chennai, Central Ground Water Authority and the Regional Director, Central Ground Water Board / State Pollution Control Board.</p>
4	<p>The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallah's existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.</p>	<p>Complied.</p> <p>Regular monitoring of ground water level and quality was carried out in and around the Mining Lease Area by establishing a network of existing wells and with installed Piezometers.</p> <p>The periodic monitoring of water quality, at least four times in a year as stipulated was carried out.</p> <p>The data thus collected was submitted regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office at Chennai, Central Ground Water Authority and the Regional Director, Central Ground Water Board/State Pollution Control Board.</p>
5	<p>Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids</p>	<p>Complied.</p> <p>The domestic effluent generated was treated in septic tank, followed by dispersion trench. Dimension of the septic tank</p>



	(TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.	[5.6X2.15X1.3] & Dispersion trench [3X2.4X1] was provided. There is no generation of effluent water from mining and there is no discharge of polluted water from leasehold. Hence, the need to monitor the effluent is not envisaged.
6	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.	Complied. Rainwater harvesting measures like garland drains/catch drains were provided to divert and collect the rainwater in the mine pit sump at the bottom most bench and augment groundwater resources.
7	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	Complied. No workshop has been planned within the Mine Lease Area. Mining operations do not generate any waste water. Hence, the requirement of providing oil and grease trap is not envisaged.
8	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.	Condition noted.
IV	Noise and vibration monitoring and preservation	Compliance status
9	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	Complied. As non-conventional open cast method of mining is being adopted. Periodical monitoring was carried out. Hence, this condition is not applicable.
10	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.	Complied. As per the approved mining plan, Mining operations were carried out without disturbing the villages in respect of both human and animal population.



11	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/personals/ laborers are working without personal protective equipment.	<p>Complied.</p> <p>Measures like silencers, greenbelt along the boundary of ML Area, etc., are provided and Mining Machinery and Vehicles were maintained properly for controlling noise level below 85 dBA in the work environment. Ear Plugs/Muffs were provided to the operators of HEMM.</p>
V	Mining Plan	Compliance status
12	The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management , O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.	<p>Complied.</p> <p>No change in mining technology and scope of working will be made without prior approval of the Ministry of Environment, Forests and Climate Change.</p> <p>No change in the calendar plan including excavation, quantum of mineral Limestone and Marl and waste was made without getting prior approval from concerned authorities.</p>
13	The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining &Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.	<p>Complied.</p> <p>A Final Mine Closure Plan along with details of Corpus Fund will be submitted to the Ministry of Environment ,Forest and Climate Change, prior to the final mine closure for approval.</p>
14	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes	<p>Complied.</p> <p>We are carrying out the mining activities as per approved Mining Plan. Compliance statement is submitted to the MoEF&CC half yearly.</p>



	self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.	
VI	Land Reclamation	Compliance status
15	The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.	Complied. The Overburden is being stored at earmarked site only and is being utilized for green belt development. Adequate safeguards like retention wall and trenches being maintained.
16	The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.	Complied. The Reject/waste was stored at earmarked site only with proper slope and adequate safeguards are carried out as per approved Mining plan.
17	The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.	Complied. The reclamation of waste dump is being carried out in scientific manner as per approved mining plan
18	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.	Complied. Proper slope has been maintained and native species saplings were planted to avoid the erosion and surface runoff.
19	The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.	Complied. We are maintaining the height of the dump less than 30 Mtrs as per Approved Mining plan. Hence, this condition is not applicable.
20	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the	Complied. We have constructed Catch drains, settling tanks and siltation ponds around the mine working, mineral yards and Top



	water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.	Soil/OB/Waste dumps. The collected water is being utilized for watering the mine area, roads, green belt development, plantation etc
21	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.	<p>Complied.</p> <p>We have constructed Check Dams around the mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies.</p>
22	The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.	<p>Complied.</p> <p>The top soil is stored at earmarked site only with proper slope and adequate safeguards like retention wall, trenches and gully plugs. The top soil is used for greenbelt development.</p>
VII	Transportation	Compliance status
23	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control	<p>Complied.</p> <p>No Transportation of minerals is carried out through village road. An approach road constructed from the mine area to the highways road. Regular water sprinkling being is carried out to control the dust emission. Pollution under control certificate being regularly obtained from the transporters.</p>



	(PUC) certificate for all the vehicles from authorized pollution testing centers.	
24	<p>The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions</p>	<p>Complied. The following control measures are adopted to control the dust level.</p> <ol style="list-style-type: none"> Water sprinkling by water tanker on the haul roads within the mine area. Covering of materials with tarpaulin before commencement of transport Ensuring Speed Control Avoiding overloading Good maintenance of vehicles and mining machinery <p>There will be no transfer points as no conveyor has been planned.</p>
VIII	Green Belt	Compliance status
25	<p>The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.</p>	<p>Complied.</p> <p>The greenbelt development work is under progress. Herbs and shrubs is also form a part of afforestation programme.</p> <p>Total Mining Lease Area : 67.73 ha Total saplings Planted (Cumulative) : 6,625 Nos Total Covered Area (Ha) : 3.06 Ha Tree Density (planned) : 2500 /ha</p> <p>The native species planned planted are</p> <ol style="list-style-type: none"> Neem Pongai Vembu Pouvarasa Illupai Teak Tamrind <p>The greenbelt development is carried out progressively as per mining plan.</p>
26	<p>The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per</p>	<p>Complied. We have carried out plantation /afforestation in back filled and reclaimed area simultaneously as per mining approved mining plan with consultation Forest Department/Agriculture Department/ Rural development department.</p> <p>The density of the trees 2500 saplings per Hectare is followed strictly as per CPCB guidelines.</p>



	Hectare. Adequate budgetary provision shall be made for protection and care of trees.	
27	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.	Complied. In our patta land near by lease area, we are developing Green belt for grazing land.
28	The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt. And implemented in consultation with the State Forest and Wildlife Department.	Complied. Endangered flora and fauna and schedule –I species not available in our Mining lease area.
29	A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.	Complied. Endangered flora and fauna and schedule –I species not available in our Mining lease area.
IX	Public hearing and human health issues	Compliance status
30	The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.	Complied. A doctor, trained in occupational health is in-charge of the First Aid Centre. Awareness Programme on Occupational Health, Diseases and Safety measures was conducted on regular basis. Occupational health and safety measures for the workers including identification of work related health hazards and the protective measures were ensured. Occupational health surveillance programme of the workers was undertaken periodically to observe any abnormality due exposure to respirable mineral dust and take corrective measures, if needed. Surveillance Health records of the workers are being maintained. Review of impact of various health measures were undertaken (at interval of five years) conducted.
31	The Project Proponent must demonstrate commitment to work towards 'Zero Harm'	Complied.



	<p>from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.</p>	<p>For all mining operations, Hazard identification and Risk Assessment was carried out to identify the Risk and mitigating measures were taken to ensure Zero harm.</p> <p>Awareness Programme on Occupational Health, Diseases and Safety measures is being conducted on regular basis. Occupational health and safety measures for the workers including identification of work related health hazards and the protective measures are being ensured.</p> <p>Occupational health surveillance programme of the workers are undertaken periodically to observe any abnormality due exposure to respirable mineral dust and take corrective measures, if needed.</p> <p>Surveillance Health records of the workers was maintained.</p> <p>Review of impact of various health measures undertaken (at interval of five years) conducted.</p>
32	<p>The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead. For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).</p>	<p>Complied.</p> <p>We are following all medical test in Initial medical examination (IME) and Periodical medical examination (PME).</p> <p>Awareness Programme on Occupational Health, Diseases and Safety measures are conducted on regular basis. Occupational health and safety measures for the workers including identification of work related health hazards and the protective measures are ensured.</p> <p>Occupational health surveillance programme of the workers were undertaken periodically to observe any abnormality due exposure to respirable mineral dust and take corrective measures, if needed.</p> <p>Surveillance Health records of the workers is being maintained.</p> <p>Review of impact of various health measures undertaken (at interval of five years) conducted.</p>



33	<p>The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.</p>	<p>Complied.</p> <p>We are following all medical test in Initial medical examination(IME) and Periodical medical examination(PME).</p> <p>Surveillance health records of the workers is being submitted to MOEF &CC.</p>
34	<p>The Project Proponent shall ensure that 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.</p>	<p>Complied.</p> <p>Personnel working in the mine are given adequate training, information on safety and health aspects and provided with required Personal Protective Equipment (PPE).</p> <p>Occupational health surveillance program of the workers being are undertaken periodically to observe any abnormality due to exposure to dust and take corrective measures, if needed.</p>
35	<p>Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile, STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.</p>	<p>Complied.</p> <p>Only the construction of toilet & septic tank and an office shed is involved. The workers from nearby the villages were engaged. No housing for the construction labourers is envisaged. However, safe drinking water, medical health care etc., is ensured for the Mine labourers.</p>
36	<p>The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.</p>	<p>Complied.</p> <p>Public hearing points are addressed from CER fund and report being submitted to the Ministry.</p>



X	Corporate Environment Responsibility(CER)	Compliance status
37	<p>The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.</p>	<p>Complied. We have already completed infrastructure facility to Arungal village Government Middle School for an Amount of Rs. 2.82 Lakhs. To carryout beautification work in Karaivetti bird Sanctuary, we have submitted a bankers cheque of Rs.3.0 Lakhs dated 02.03.2023 to "District Forest officer". Rs 2 Lakhs DD submitted to nearby School for regular Toilet sanitation</p> <p>For balance CER fund of Rs. 14.20 Lakh, We planned to complete the CER activities in 3 years period. We proposed to complete CER activities for Rs. 6.80 Lakh for the year 2023-24. Reports will be submitted after completion of work.</p>
38	<p>Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.</p>	<p>Complied. The funds earmarked for environmental protection measures are kept in separate account and used to implement the Environment Management Plan as furnished in the EIA Report.</p>
XI	Miscellaneous	Compliance status
39	<p>The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.</p>	<p>Complied. we prepared a digital map of the entire lease area and report was submitted to Regional Office of the MoEF&CC.</p>
40	<p>The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.</p>	<p>Complied 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& CC, Chennai does not arise.</p>
41	<p>The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC &its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.</p>	<p>Complied. Six monthly EC compliance report is being submitted by email, to the Regional Office of MoEF & CC, Chennai, CPCB & TNPCB. The status of compliance of environment clearance conditions is being uploaded in our website.</p> <p>The environmental monitoring of various parameters were carried out and the</p>



		monitored data will be submitted to the Regional Office of MoEF & CC, Chennai, CPCB& TNPCB in hard copy as well as by emails and will also be uploaded in the company website.
42	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.	Complied. A separate Environmental & Safety management Cell was created to take care of EHS function for complying with environmental and safety regulations and implementing pollution control, safety and occupational health protection measures. The Head of the Cell was directly reporting to the Head of the Organization and is enclosed as Annexure-5.
43	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.	Complied. Full cooperation is extended to the officer (s) of the Regional Office by furnishing: the requisite data / information / monitoring reports.

For M/s. Chettinad Cement Corporation Private Limited

R.P. Muthiah
Vice President (Works)



ANNEXURE 2

Chettinad Cement Corporation Private Limited -Arungal Limestone Mine													
Arungal Village , Ariyalur District, Tamilnadu State													
Ambiant Air Quality Monitoring- Consolidated Report (Oct 2022 -Mar 2023)													
S.No	Location	PM ₁₀ (µg/m ³)			PM _{2.5} (µg/m ³)			SO ₂ (µg/m ³)			NOx (µg/m ³)		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	View Point	65.6	62.0	63.4	31.4	27.2	30.1	10.8	9.9	10.3	24.1	19.4	22.1
2	Loading area	66.9	62.0	64.5	32.6	29.8	31.0	11.6	11.0	11.4	25.3	22.8	24.1
3	Haul road	58.8	55.1	57.2	26.9	23.0	25.5	9.8	8.6	9.2	19.6	18.6	19.1
4	Dump yard	61.8	57.0	59.0	28.4	25.9	27.3	10.6	8.6	9.5	21.8	18.5	20.1
5	Keelapalur Village	55.7	53.3	54.5	25.3	24.5	24.9	9.8	8.6	9.2	21.7	20.8	21.3
6	Arungal village	57.1	56.1	56.6	26.0	24.1	25.1	10.5	9.0	9.8	22.9	19.4	21.2
7	Sathamangalam Village	55.2	54.9	55.0	28.1	27.8	28.0	10.6	9.0	9.8	19.4	18.0	18.7
8	Karuvidaichery Village	58.6	57.7	58.2	29.0	26.0	27.5	9.8	8.9	9.4	21.5	20.6	21.1
Norm		100 µg/m ³			60 µg/m ³			80 µg/m ³			80 µg/m ³		

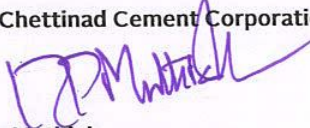
for Chettinad Cement Corporation Private Limited

R.P. Muthiah
R.P. Muthiah
Vice President (Works)



Chettinad Cement Corporation Private Limited -Arungal Limestone Mine								
Arungal Village , Ariyalur District, Tamilnadu State								
Noise Level Monitoring- Consolidated Report (Oct 2022 -Mar 2023)								
S.No	Location	UoM	Day			Night		
			L _{min}	L _{max}	L _{eq}	L _{min}	L _{max}	L _{eq}
Within the Premises								
1	Mines Office	dB(A)	54.9	56.1	55.5	54.2	55.0	54.6
2	Haul Road	dB(A)	57.2	62.0	61.4	48.1	50.2	49.2
Limit (L _{eq})		dB(A)	85			85		
S.No	Location	UoM	Day			Night		
			L _{min}	L _{max}	L _{eq}	L _{min}	L _{max}	L _{eq}
Outside the Premises								
1	Arungal Village	dB(A)	52.1	53.6	52.9	42.6	44.3	43.5
2	Karuvidaicheri Village	dB(A)	51.7	53.3	52.5	43.0	44.4	43.7
Limit (L _{eq})		dB(A)	55			45		

for Chettinad Cement Corporation Private Limited


R.P. Muthiah
 Vice President (Works)



Chettinad Cement Corporation Private Limited - Arungal Limestone Mine

Arungal Village , Ariyalur District, Tamilnadu State

Ground Water Quality Monitoring Report (Oct 2022 -Mar 2023)

S.No	Parameter	UoM	GW1	GW2	SW3	Limit
1	pH	#	6.94	7.12	7.51	5.5 - 9.0
2	Temperature	Deg C	30.10	30.38	31.08	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	416.50	446.00	6654.00	2100
6	Chloride as Cl	mg/l	89.00	93.50	1651.50	1000
7	Sulphide as S	mg/l	BLQ	BLQ	BLQ	2
8	Sulphate as SO ₄	mg/l	44.00	47.50	395.00	1000
9	Fluride as F	mg/l	0.20	0.20	1.40	2
10	Sodium	mg/l	46.00	55.00	695.00	-
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 ₆ H ₅ 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	BLQ	BLQ	BLQ	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(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	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 ₃	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)	BDL
31	Nickel as Ni	mg/l	BLQ	BLQ	BLQ	3
GW1 : Arungal village						
GW 2 : Sathamangal village			BLQ: Below Qualification Limit.			
GW3 .Mines Sump Water			BDL : Below Detectable Level			

for Chettinad Cement Corporation Private Limited

R.P. Muthiah
Vice President (Works)



Annexure-5

Dt.: 01.08.2022



Chettinad Cement Corporation Private Limited, Ariyalur Works
Cement Plant, Captive Power Plant & Lime Stone Mines

Internal Circular

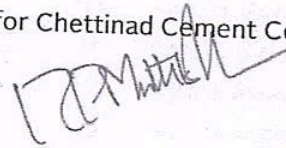
Sub: Environment & Safety Management Cell committee

Environment & Safety Management cell members is formed to take care of Environment safe guards measures in the Plant & Lime Stone Mines area. Now, the committee members are revised and listed below.

S.No.	Name of the Executive	Designation
1	Shri. R.P. Muthiah	Chairman & Plant Head
2	Shri. M. Jagadeesan	Vice Chairman & Operation Head
3	Shri. V. Ramesh	Secretary & Environment Head
4	Shri. Sivaji Samineni	Instrumentation Head
5	Shri. M.A. Rajavel	HR Head
6	Shri. M. Rajamohan	QUAS Head
7	Shri. L.V. Senthil Kumar	Electrical Head
8	Shri. S. Ramesh	Mines Head
9	Shri. P. Kanakaraj	Mech-Pre Clinkerisation Head
10	Shri. M. Radhakrishnan	Mech-Post Clinkerisation Head
11	Shri. K. Girisan	CPP Head
12	Shri. J. Meenakshi sundaram	Civil Head
13	Shri. S. Ashok Kumar	Safety Head
14	Shri. V. Palaniappan	Accounts Head
15	Shri. Dr. C. Vinoth	Medical Officer
16	Shri. M. Raja Chidambaram	Public Relations Officer(PRO)

Note- Committee will be revised after three years. Changes in the members if any to be replaced with new members within 15 days period.

for Chettinad Cement Corporation Private Limited


R. P. Muthiah
Vice President [Works]

Copy to: Team Members

Chettinad Cement Corporation Private Limited
Ariyalur Trichy Road, Keelapalur Post,
Ariyalur Dist - 621707, Tamilnadu, India.
T + 91 4329 250009
F + 91 4329 250011, 250013

CIN : U93090TN1962PTC004947
Regd. Office : Chettinad Towers,
603, Anna Salai, Chennai - 600 006.
T + 91 44 2829 2727, 42951800 (100 lines) E : ariyalur@chettinadcement.com
F + 91 44 2829 1558 www.chettinad.com





Tamil Nadu Pollution Control Board

Ambient Air Quality Survey Report

Report No:69 /AAQS/2022-2023 Dated:19.01.2023

- 1.Name and Address of the Industry : M/s.Chettinad Cements Corporation Private Limited,
Arungal Limes Stone Mine,
Arungal Village,
Ariyalur TK,
Ariyalur District.
- 2.Date of Survey : 07.12.2022
- 3.Duration of Survey : Eight Hours
- 4.Category : Red/Large
- 5.Consent Order No. : 2208243539088

Ambient Temperature (°C)	Min -	Max	Relative Humidity (%)	Min	Max
	27	34		43	68
Weather Condition	Clear		Rain Fall (mm)	Nil	
Predominant Wind Direction	NE to SW		Mean Wind Speed (Km/hr)	12.6	

Sl. No	Location of Sampling Stations	From Source			Pollutants in µg/m3		
		Dire.	Dist. (m)	Ht. from gl (m)	PM ₁₀	SO ₂	NO ₂
1.	On the top of scaffolding at NE corner of the mines	NE	500	2.0	65	9.5	11.5
2.	On the top of scaffolding at SE corner of the mines	SE	750	2.0	69	11.4	14.0
3.	On top of scaffolding at SW corner of the mines	SW	600	2.0	78	15.8	17.1
4.	On top of scaffolding at NW corner of the mines	NW	900	2.0	74	13.9	15.7

K. Jeyaraj
19/1/23
Environmental Scientist,

[Signature]
19/01/23
Assistant Director,
AEL, TNPCB, Trichy-15.





Tamil Nadu Pollution Control Board
Ambient Noise Level Survey Report of Analysis

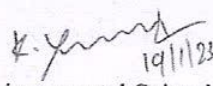
Report No: 69/AAQS/2022-2023 Dated:19.01.2023

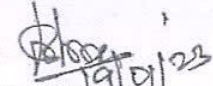
1	Name of the Industry	M/s.Chettinad Cements Corporation Private Limited,
2.	Address of the Industry	Arungal Limes Stone Mine, Arungal Village, AriyalurTK, Ariyalur District.
3.	Date of Survey	07.12.2022
4.	Consent Order No.	2208243539088
5.	Category	Red/Large
Type of Survey		Ambient
Time of Survey		Day
Meteorological Conditions		Clear

Logging Parameters

Instrument Used	Casella	Serial No.	0499485
Logging Interval	10 Minutes in each Point	Measuring Range	50-110dB(A)
Weighting	"A"	Time Weighting	Fast
Sound Incidence	Random	Time of Survey in Hrs.	14.00 to 15.20

SI No	Location	Duration (m)	Distance (m)	Direction	Sound Level -dB(A)		
					L _{eq}	L _{Min}	L _{Max}
1.	Near NE boundary of the mines	10	550	NE	54.8	45.0	66.9
2.	Near South direction of the mines	10	500	S	58.8	47.4	65.7
3.	Near SW corner of the mines	10	600	SW	45.5	39.9	55.2
4.	Near Western side of the mines	10	600	W	54.0	37.8	68.4
5.	Near NW corner of the mines	10	900	NW	43.0	34.0	53.7


19/1/23
Environmental Scientist,


19/01/23
Assistant Director,
AEL, TNPCB, Trichy-15.



Arungal Lime Stone Mines [67.73 Ha]
Compliance of Notification published by MoEF&CC on 12.08.2021
Single Use Plastic Ban Awareness Board installed



பிளாஸ்டிக் மாசில்லா தமிழ்நாடு

தமிழ்நாட்டை பிளாஸ்டிக் மாசில்லா மாநிலமாக உருவாக்குவதற்கு, தமிழக அரசு ஒரு முறை பயன்படுத்தி தூக்கி எறியப்படும் பிளாஸ்டிக் பொருட்களுக்கு தடை விதித்துள்ளது. நமது சுற்றுச்சூழலை காப்பது நம் கடமை என்ற உணர்வோடு தடை செய்யப்பட்ட பிளாஸ்டிக் பொருட்களை தவிர்த்து மாற்றுப் பொருட்களை பயன்படுத்துமாறு தமிழக அரசு, மக்களை அன்போடு கேட்டுக்கொள்கிறது.

தடை செய்யப்பட்ட பொருட்கள்	தடை X	பயன்படுத்தக்கூடிய பொருட்கள்	மாற்று ✓
<ul style="list-style-type: none"> உணவுப்பொருட்களை கூட உபயோகப்படுத்தப்படாத கைத்தொலை உறை பொதுமக்களால் தட்டுகள் பிளாஸ்டிக் பூசப்பட்ட காகித தட்டுகள் பிளாஸ்டிக் பூசப்பட்ட காகித துவளிகள் பிளாஸ்டிக் பூசப்பட்ட நெயர் துவளிகள் பொதுமக்களால் துவளிகள் உணவு அருந்துப் பருவதின் பீதி விக்கப்படும் பிளாஸ்டிக் / பிளாஸ்டிக் பூசப்பட்ட தள 	<ul style="list-style-type: none"> நீர் நிரப்பப்படும் பெட்டிகள், பொருட்களை பிளாஸ்டிக் உருக்க குழாய்கள் பிளாஸ்டிக் பெட்டிகள் பிளாஸ்டிக் பூசப்பட்ட துவளிகள் காகித பெட்டிகள் பிளாஸ்டிக் கொப்பளிகள் பெய்யாத பிளாஸ்டிக் தூக்க எப்புகள் பிளாஸ்டிக் துவளிகள் 	<ul style="list-style-type: none"> வாடை இலைகள் நுழை இலைகள் பாகமூல இலைகள் உலோக தட்டுகள் பீங்கான் தட்டுகள் பீங்கான் துவளிகள் உலோக துவளிகள் உலோக கொப்பளிகள் கண்ணாடி துவளிகள் கண்ணாடி பாட்டில்கள் 	<ul style="list-style-type: none"> காகித கட்டுகள் நுழை பெட்டிகள் அலுமினிய தாள் மண் துவளிகள் மண்மண்டலங்கள் காகித, மர உறிஞ்சு குழாய்கள் காகிதம் / சுண்ணாம்பு காகித / நுணி கொப்பளிகள்

செட்டிநாடு சிமெண்ட் கார்ப்பரேஷன் (பி) லிட், அரியலூர் ஓர்க்ஸ்
சரியான கான்கிரீட் தேர்வு

Single Use Plastic Ban Awareness for Arungal Mines Employees & Workers

