

29th May 2023

CCCPL/TN/ATK /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 Six Monthly Environmental Clearance Compliance & Environmental Monitoring Reports (Oct'2022 - Mar'2023) – Alanthurayarkattalai Limestone Mine (22.26 ha) of Chettinad Cement Corporation Private Limited located at Alanthurayarkattalai Village, Ariyalur Taluk & District, Tamilnadu .

Ref: Environmental Clearance granted by MoEF vide Letter No : J-11015/53/2007 -IA II.(M) dated 26.12.2007

We submit herewith the Six Monthly Environmental Clearance Compliance & Environmental Monitoring Reports, as detailed below, for the Alanthurayarkattalai Limestone Mine (22.26 ha) located at Alanthurayarkattalai 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

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

Alanthuraiyarkattalai Limestone Mine

Alanthuraiyarkattalai Village, Ariyalur Taluk & District, Tamilnadu

Environmental Clearance (EC) Compliance Report (October 22 to March 23)

(EC granted by MoEF vide Letter No: J-11015/53/2007 -IA II.(M) dated 26.12.2007
for a Mining Capacity of 0.5 million ton per annum & Mining Lease Area of 22.26 ha)

A. Specific Conditions

S.No	Specific Condition	Compliance Status
i.	Top soil shall be stacked properly with proper slope with adequate safeguards and shall be back filled for reclamation and rehabilitation of mined out area.	Complied. The top soil was stored at earmarked site and is being used for greenbelt development.
ii.	Over burden shall be stacked at earmarked dump site (s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10m and over all slope of the dump shall not exceed 28 degree. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.	Complied. The over burden removed was stacked at earmarked dumps and the same is used for formation of bunds along the boundary of ML area. The current height of the dump is 9 m and the slope of the dump is 26°. The overall slope of the dump is being maintained at 28°. The mined out pits was reclaimed using the over burden after exhausting the mineral in the pit as per IBM approved Scheme of Mining. The reclaimed area was planted with native species in a progressive manner. Planting native species on the dump is ensured to prevent erosion and surface run off. Compliance status report is being submitted to the Ministry of Environment, Forest & Climate Change once in every six months.
iii.	Garland drains of appropriate size shall be constructed to arrest silt and sediment flows from soil, and mineral dumps. The rain water so collected shall be utilized for watering the mine	Complied. Garland drain of 1.0 m width, 0.8m depth was constructed for top soil & overburden dumps and around mine pit.



S.No	Specific Condition	Compliance Status
	area, roads, green belt development etc. The drains shall be regularly de silted particularly after monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rain fall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de silted at regular intervals.	<p>The rain water collected in the sump is utilized for domestic purpose and greenbelt development.</p> <p>As the rainwater is getting collected in the sump, there is no possibility of overflow from the Mine Pit & sufficient retention time is made available for the settling of solid particles/silt materials.</p> <p>The garland drains are being desilted at regular intervals after monsoon.</p>
iv.	Drilling and blasting shall be by using dust extractors / wet drilling.	<p>Complied.</p> <p>Non-Conventional Method of Mining was adopted. Hence, the drilling & blasting operations were completely eliminated.</p>
v.	Particle size analysis of minerals in the SPM shall be carried out and study report submitted to the Ministry within six months.	<p>Complied.</p> <p>Particle size analysis of Suspended Particulate Matter was conducted by the National Institute of Miners Health (NIMH) and report was submitted to MoEF.</p>
vi.	Plantation shall be raised in an area of 3.87 ha including greenbelt of adequate width by planting the native species around the ML area, roads, OB dump sites etc., in consultation with the local DFO /Agriculture Department. The density of the trees shall be around 2500 plants per ha. Selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides trees plantation. Green belt development and selection of plant species shall be as per CPCB guidelines. Details of year wise afforestation Including rehabilitation of mined out	<p>Complied.</p> <p>The details of greenbelt development carried out in consultation with the local DFO/Agriculture Department in the ML area are given below.</p> <p>ML area : 22.26 ha Recommended greenbelt area: 3.87 ha Saplings planted so far : 23225 nos. Extent of existing greenbelt area: 11.53ha</p> <p>Saplings Planted Following native species are planted.</p> <p>a. Neem</p>



S.No	Specific Condition	Compliance Status
	area shall be submitted to ministry within six months.	b. Pongan c. Vembu d. Pouvarasa e. Illupai f. Teak g. Tamarind Greenbelt Development Plan Greenbelt development was carried out progressively.
vii.	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director Central Ground water Board.	Complied. Garland drains had been provided to divert and collect rainwater in the sump developed inside the Mine Pit The rain water collected in the sump is being used for dust control in haul roads and also for greenbelt development. The water stored in the sump itself helps to augment ground water recharge.
viii.	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – pre monsoon (April – May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground water Authority and Regional Director Central Ground water Board.	Complied. Regular monitoring of ground water quality is being be carried out by establishing a network of existing wells on a quarterly basis and the data collected are being submitted to MoEF &CC, Central Ground water Authority and Regional Director, Central Ground water Board.
ix.	Prior permission from the competent authority shall be obtained for drawl of ground water if any.	Complied. The mine requires 4 m ³ of water/day for domestic purpose and greenbelt development. Rainwater collected in the Mine Pit is being used. At present no mining activity.



S.No	Specific Condition	Compliance Status
x.	Conservation plan for wild life shall be prepared in consultation with the chief wild life warden and duly vetted by the office of the CWLW for implementation. Necessary fund for implementation of the same shall be separately allocated.	Complied. No Ecologically Sensitive Area/ Wild Life Sanctuary/National Park is located within 10 km distance of Mining Lease area. Hence this condition is not applicable.
xi.	Land use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural land or common property land(if any) in the nearby villages due to mining activity shall be submitted to the ministry within six months. Annual status of implementation of the plan and expenditure thereon shall be reported to the ministry. The company shall implement income generating projects for the economically Poorer section of the people in the nearby villages.	Complied. Study on land use pattern of nearby villages had already been conducted and included in EIA Report. The EIA Report had been submitted to MoEF, Bangalore As non-conventional method of mining was followed, no drilling and blasting are involved. Dust control measures like water sprinkling and greenbelt along the boundary were being carried out. Hence, the possibility of any damage due to mining activity on agricultural lands & property in nearby village was not envisaged. The local, poorer section of the people in the nearby villages were given employment in the Mine.
xii	Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses	Complied. Maintenance of village roads through which transportation of limestone takes place, was done by the company regularly.
xiii.	Fodder forms shall be developed in the buffer zone in consultation with local NGOs/Self help groups	Complied. Fodder forms were developed in the buffer zone in consultation with local NGOs/Self help groups.
xiv.	Rain water harvesting shall be undertaken to recharge the ground water table.	Complied. Garland drains was provided to divert and collect rainwater in the sump developed inside the pit. The rain water collected at the sump provided was used for greenbelt development. The water stored in the sump itself is helping to recharge ground water.



S.No	Specific Condition	Compliance Status
xv.	Any existing water bodies or those created during the course of mining may be utilized to develop pisci-culture by organizing fisherman cooperative society with the land losers, if any or villagers from nearest village as members. The poorer section of the society shall be specially inducted as members of such a society to be developed. Initial financial assistance for creation of the society shall be developed so that the members themselves can run the affairs of the society in due course. The project proponent shall also arrange marketing tie up so that society gets fair price of their product and profits are equitably shared by the members of the society as regular source of income.	Complied. The mined out area were converted into rainwater harvesting pond. This conversion will take place at the conceptual stage. As stipulated, these water bodies will be utilized to develop pisciculture.
xvi.	Water to be supplied for drinking purpose shall be treated to prescribe standards. Monitoring of water quality for drinking shall be undertaken on daily basis and records maintained.	Complied. Potable water was supplied for drinking purpose. The quality of water was monitored on regular basis.
xvii.	Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health surveillance. Periodic monitoring of exposure to mineral dust on the workers shall be conducted and records maintained including health records of workers.	Complied. Occupational health surveillance programme of the workers were undertaken periodically. Awareness Programme on Occupational Health, Diseases and Safety measures were conducted on regular basis. The types of training programme conducted includes <ul style="list-style-type: none"> a. Induction Training b. Job specific Training covering health and safety aspects c. Refresher Training Occupational Health Surveillance was carried by a qualified doctor, trained in Occupational Health and Surveillance Health records of the workers was maintained.



S.No	Specific Condition	Compliance Status
xviii.	Land use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural land or common property land (if any) due to mining activity shall be submitted to the ministry within six months.	<p>Complied.</p> <p>Study on land use pattern of nearby villages had already been conducted and included in EIA Report. The EIA Report had been submitted to MoEF, Bangalore.</p> <p>No operation at present and greenbelt along the boundary are being carried out. Hence, the possibility of any damage due to mining activity on agricultural lands & property in nearby village is not envisaged.</p>
xix.	Socio economic profile of population in the nearby villages shall be studied and action plan for their rehabilitation including formation of self help groups who can facilitate promotion of economic opportunity for local people shall be submitted for record.	<p>Complied.</p> <p>Detailed Socioeconomic profile study of the population had already been conducted and included in EIA report. The EIA Report had been submitted to MoEF, Bangalore. we have carried out various social welfare activities for the benefit of the local population near the mines.</p>
xx.	Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses.	<p>Complied.</p> <p>Maintenance of village roads through which transportation of limestone took place was done by the company regularly.</p>
xxi.	Any existing water bodies or those created during the course of mining may be utilized to develop pisci-culture by organizing fisherman cooperative society with the land losers, if any or villagers from nearest village as members. The poorer section of the society shall be specially inducted as members of such a society to be developed. Initial financial assistance for creation of the society shall be developed so that the members themselves can run the affairs of the society in due course. The project proponent shall also arrange marketing tie up so that society gets fair price of their product and profits are equitably shared by the members of the society as regular source of income.	<p>Complied.</p> <p>The mined out area is being converted into rainwater harvesting pond. As stipulated, these water bodies will be utilized to develop pisciculture.</p>



S.No	Specific Condition	Compliance Status
xxii.	Water supplied for drinking purpose shall be treated to prescribe standards monitoring of water quality for drinking shall be undertaken on daily basis and records maintained.	Complied. Potable water is being supplied for drinking purpose. The quality of water is being monitored on regular basis.
xxiii.	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Occupational health and safety measures for the workers including identification of work related hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health surveillance. Periodic monitoring of exposure to mineral dust on the workers shall be conducted and records maintained including health records of workers.	Complied. Occupational health surveillance programme for the workers were undertaken periodically. Awareness Programme on Occupational Health, Diseases and Safety measures was conducted on regular basis. The types of training programme conducted include a. Induction Training b. Job specific Training covering health and safety aspects c. Refresher Training Occupational Health Surveillance was carried by a qualified doctor, trained in Occupational Health and Surveillance Health records of the workers were maintained.
xxiv.	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. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Complied. No Mining operation at present.
xxv.	A Final mine closure plan along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Will be Complied. Final Mine Closure Plan along with details of Corpus Fund will be submitted to the MOEFCC, well in advance, prior to the final mine closure for approval.



Part B –General Conditions

S.No	General Condition	Compliance Status
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	Complied. No change in mining technology and scope of working.
ii.	No change in calendar plan including excavation, quantum of mineral, Limestone ore and waste shall be made.	Complied. No change in calendar plan including excavation, quantum of mineral, Limestone ore and waste.
iii.	Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with local forest and wildlife department.	Complied. The core zone is a dry, barren land with scanty bushes. Mining Operation was carried out taking all precautions and complying with the conditions stipulated by MoEF & CC, TNPCB and IBM. As non-conventional method of mining was adopted, no drilling and blasting were involved.
iv.	Four ambient air quality monitoring stations shall be established in the corezone as well as in the buffer zone for RPM,SPM,SO ₂ ,NO _x monitoring. Location of the stations should be decided based on meteorically data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with State Pollution Control Board.	Complied. Four Ambient Air Quality Monitoring Stations has been established in the core zone and the buffer zone for monitoring PM _{2.5} & PM ₁₀ and NO _x and SO ₂ in the ambient air in consultation with Tamilnadu Pollution Control Board. Quarterly Monitoring was carried out regularly and reports were submitted.
v.	Data on ambient air quality (RPM, SPM, SO ₂ , NO _x) should be regularly submitted to the ministry including Regional office at Bangalore and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Complied. Data on Ambient Air Quality (PM _{2.5} & PM ₁₀ ,NO _x & SO ₂) is being regularly were submitted to the Regional Office of the MoEF & CC, Chennai,TNPCB and CPCB once in six months.



S.No	General Condition	Compliance Status
vi.	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	<p>Complied.</p> <p>Adequate measures were carried out to control fugitive emission as given below.</p> <ol style="list-style-type: none"> Water Sprinkling on the haul roads Water Sprinkling while handing materials containing finer particles 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 installed.</p>
vii.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc shall be provided with ear plugs/muffs.	<p>Complied.</p> <p>Measures like silencers, greenbelt along the boundary of ML Area, etc., provided and good maintenance of Mining Machinery and Vehicles were ensured for controlling noise level.</p> <p>Ear plugs/Muffs are being provided to the operators of HEMM.</p>
viii.	Industrial waste water (Workshop and waste water from the mine) should be properly collected, treated so as to confirm to the standards prescribed under GSR 422(E) dated 19 th May ,1993 and 31 st December ,1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	<p>Complied.</p> <p>No workshop was provided within the Mine Lease Area and no Mining operations at present. Hence, the requirement of providing oil and grease trap was not envisaged.</p>
ix.	Personnel working in dusty areas shall wear protective respiratory devices and they also be provided with adequate training and information on safety and health aspects.	<p>Complied.</p> <p>Persons working in the mine were given adequate training, information on safety and health aspects. Also, the employees were provided with required Personal Protective Equipment (PPE).</p>



S.No	General Condition	Compliance Status
x.	A separate Environment Management cell with suitable qualified personnel shall be set-up under the control of senior executive, who will directly report to the Head of organization.	<p>Complied.</p> <p>A separate Environmental Cell was created to take care of EHS function and the Head of the Cell is being directly reporting to the Head of the Organization for complying with environmental regulations and implementing pollution control measures. Environment Management Cell team is enclosed as Annexure-5.</p>
xi.	The Project Authorities shall inform to the Regional office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<p>Complied.</p> <p>As the internally accrued funds had been invested, the requirement of informing the date of financial closures and final approval of the project to the Regional Office of MoEF & CC, Chennai is not envisaged.</p> <p>The date of commencing land development work had been informed to the Regional Office of MoEF & CC, Bangalore.</p>
xii.	The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the ministry and its regional office located at Bangalore.	<p>Complied.</p> <p>The funds earmarked for environmental protection measures kept inseparate account and are not diverted for any other purpose.</p> <p>Year wise expenditure report were submitted to the Ministry and its Regional Office located at Chennai.</p>
xiii.	The project authorities shall inform to theRegional office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land developmental work.	<p>Complied.</p> <p>As the internally accrued funds had been invested, the requirement of informing the date of financial closures and final approval of the project to the Regional Office of MoEF & CC, Chennai is not envisaged. The date of commencing land development work had been informed to the Regional Office of MoEF & CC, Bangalore.</p>
xiv.	The Regional office of this ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer(s) of the Regional office by furnishing the requisite data /information /monitoring reports.	<p>Complied.</p> <p>Full cooperation to the officer (s) of the Regional Office of MoEF & CC, Chennai was extended by furnishing the requisite data / information / monitoring reports.</p>



S.No	General Condition	Compliance Status
xv.	A copy of the clearance letter will be marked to concerned Panchayat / local NGO, If any, from whom suggestion/ representation has been received while processing the proposal.	Complied. A copy of the Environmental Clearance letter was submitted to Alanthuraiyarkattalai Panchayat on 25.11.2007.
xvi.	State pollution control board should display a copy of clearance letter at the regional office, District industry centre and collector's office/ Tahsildar's office for 30 days.	Complied and displayed.
xvii.	The project authorities shall advertise at least in two local newspaper widely circulated, one of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of clearance letter is available with State Pollution Control Board and also at the website of the Ministry of Environment & Forests at http://envfor.nic.in and a copy of the same should be forwarded to Regional Office of this Ministry located at Bangalore.	Complied. Advertised in English (New Indian Express) and in Tamil (Dinamani) and copies of clearance letter are made available with the TNPCB and also can be seen at website of the MOEF at http://envfor.nic.in . The copies of advertisement were submitted to Regional Office of MoEF, Bangalore.

For M/s. Chettinad Cement Corporation Private Limited

R.P. Muthiah

Vice President [Works]



ANNEXURE 2

Chettinad Cement Corporation Private Limited -Alanthuraiyarkattalai Limestone Mine													
Alanthuraiyarkattalai 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	ATK Mines Office	63.1	50.1	57.2	28.9	21.5	25.1	10.8	8.0	9.3	22.3	16.1	19.1
2	Mines Haul Road	65.7	52.3	59.4	30.6	23.5	27.4	11.6	9.8	10.6	24.0	18.2	21.9
3	Sundakudi	58.3	48.2	53.3	27.4	20.4	24.0	9.6	8.0	8.7	19.7	17.6	18.8
4	Idaiyathankudi	57.1	51.7	55.2	26.6	22.2	24.7	10.3	8.8	9.5	21.4	20.2	20.7
5	Chettithirukonam Village	56.3	56.3	56.3	25.9	25.9	25.9	10.2	10.2	10.2	18.6	18.6	18.6
6	Valaikuli Village	58.3	58.3	58.3	28.1	28.1	28.1	9.0	9.0	9.0	21.7	21.7	21.7
7	Poyyur Village	54.7	54.7	54.7	24.5	24.5	24.5	9.5	9.5	9.5	19.0	19.0	19.0
8	Karuppilakattalai Village	59.9	59.9	59.9	27.5	27.5	27.5	10.9	10.9	10.9	23.5	23.5	23.5
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
Vice President (Works)



Chettinad Cement Corporation Private Limited -Alanthuraiyarkattalai Limestone Mine								
Alanthuraiyarkattalai 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)	25.5	26.2	25.9	24.7	25.2	25.2
2	Loading Area	dB(A)	26.2	27.2	26.7	25.3	25.6	25.3
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	Idayathankudi Village	dB(A)	25.1	25.7	24.9	20.9	21.4	21.2
2	Elleri Village	dB(A)	24.8	25.3	25.1	20.8	21.9	21.3
Limit (L _{eq})		dB(A)	55			45		

for Chettinad Cement Corporation Private Limited

R.P. Muthiah
Vice President (Works)



Chettinad Cement Corporation Private Limited-Alanthuraiyarkattalai Limestone Mine

Alanthuraiyarkattalai Village, Ariyalur District, Tamilnadu

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

S.No.	Parameter	UoM	GW 1	GW 2	SW 3	Limit
1	pH	-	7.54	7.38	8.45	5.5 - 9.0
2	Temperature	Deg C	31.05	30.55	32	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	386	399	490	2100
6	Chloride as Cl	mg/l	98	96	185	1000
7	Sulphide as S	mg/l	BLQ	BLQ	BLQ	2
8	Sulphate as SO ₄	mg/l	36	38	53	1000
9	Fluride as F	mg/l	0.2	0.2	0.2	2
10	Sodium	mg/l	36	40	49	-
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	2.4
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)	0.2
31	Nickel as Ni	mg/l	BLQ	BLQ	BLQ	3
GW 1 : Elleri Village, GW 2: Edayathangudi Village			BLQ: Below Qualification Limit.			
SW 3 : 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

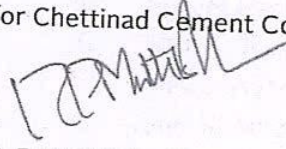
Sub: Environment & Safety Management Cell committee

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	QA/QC 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)

F + 91 44 2829 1558

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

Annexure - 6



Tamil Nadu Pollution Control Board **Ambient Air Quality Survey Report**

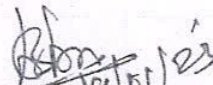
Report No:73/AAQS/2022-2023 Dated:19.01.2023

- 1.Name and Address of the Industry : M/s.Chettinad Cements Corporation Private Limited,
Alanthuraiyarkattalai Limes Stone Mine,
Alanthuraiyarkattalai Village,
Ariyalur TK,
Ariyalur District.
- 2.Date of Survey : 09.12.2022
- 3.Duration of Survey : Eight Hours
- 4.Category : Red/Small
- 5.Consent Order No. : 2208243533288

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	25	34		31	64
Weather Condition	Clear		Rain Fall (mm)	Nil	
Predominant Wind Direction	NE to SW		Mean Wind Speed (Km/hr)	11.6	

Sl. No	Location of Sampling Stations	From Source			Pollutants in $\mu\text{g}/\text{m}^3$		
		Dire.	Dist. (m)	Ht. from gl (m)	PM ₁₀	SO ₂	NO ₂
1.	On the top of scaffolding near NE boundary of the mines	NE	400	2.0	66	5.7	7.9
2.	On the top of scaffolding at SE corner of mines	SE	350	2.0	73	7.6	9.4
3.	On top of scaffolding at SW corner of the mines	SW	300	2.0	80	11.4	13.6
4.	On top of scaffolding at NW corner of the mines	NW	350	2.0	76	9.5	11.1


19/1/23
Environmental Scientist,


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



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

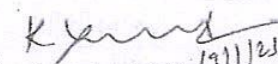
Report No: 73/AAQS/2022-2023 Dated:19.01.2023

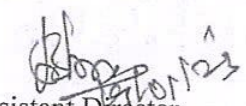
1.	Name of the Industry	M/s.Chettinad Cements Corporation Private Limited,	
2.	Address of the Industry	Alanthuraiyarkattalai Limes Stone Mine, Alanthuraiyar Kattalai Village, AriyalurTK, Ariyalur District.	
3.	Date of Survey	09.12.2022	
4.	Consent Order No.	2208243533288	
5.	Category	Red/Small	
Type of Survey		Ambient	Time of Survey
Meteorological Conditions		Calm	

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	350	NE	42.7	35.6	54.8
2.	Near Entrance of the mines East side	10	300	E	54.6	47.1	61.4
3.	Near SE corner of the mines	10	350	SE	50.9	41.1	60.1
4.	Near SW corner of the mines	10	300	SW	46.0	37.5	60.7
5.	Near NW corner of the mines	10	350	NW	50.9	42.2	60.2


Environmental Scientist,


Assistant Director,
AEL,TNPCB,Trichy-15.