CCCPL/TN/UNJ /EC Compliance/ Oct'2022 - Mar'2023/22-23/ 29th May 2023

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) – Unjini Limestone Mine (20.965 ha) of Chettinad Cement Corporation Private Limited at Unjini Village, Ariyalur Taluk & District, Tamilnadu.

Ref: Environmental Clearance granted by SEIAA, Tamilnadu vide Letter No SEIAA/TN/EC/1(a)/03/F-307/2012 dated 24.09.2012.

We submit herewith the Six Monthly Environmental Clearance Compliance & Environmental Monitoring Reports, as detailed below , pertaining to the Unjini Limestone Mine (20.965 ha) located at Unjini Village, Sendurai Taluk & Ariyalur 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

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Chettinad Cement Corporation Private Limited
Unjini Limestone Mine
Unjini Village, Ariyalur Taluk &District, Tamilnadu

Environmental Clearance (EC) Compliance Report (October22 –March-23)

(EC grantedby SEIAA, Tamilnadu vide Letter No:SEIAA/TN/EC/1(a)/03/F-307/2012 dated 24.09.2012for the expansion of MiningCapacity from 0.012 to 0.3 million tonper annum& Mining Lease Area of 20.965ha)

A. Specific Conditions:

S.No	Specific Condition	Compliance Status
i.	The proponent shall commence the mining operation only after submitting the certified compliance report of the earlier environmental clearance from the Regional Office, MoEF, Bangalore.	**Complied.** The certified compliance report of the Environmental Clearance was submitted to the Regional Office, MoEFCC, Bangalore and MoEFCC, Delhi on 20.02.2012. Mining operationswere commenced after obtaining Consent for Operation (CFO) from Tamilnadu pollution Control Board (TNPCB) on 18.02.2013.
ii.	The project proponent shall obtain Consent to Establish & Consent to Operate from the TNPCB and effectively implement all the conditions stipulated therein.	**Complied.** Consent for Establishment (CFE) from TNPCB was obtained on 18.12.2012. Consent for Operation (CFO) from TNPCB obtained on 18.02.2013. The conditions stipulated in the consent order were implemented effectively.
iii.	Scheduled species of fauna found in the area shall be monitored closely and a plan shall be prepared and implemented for their conservation.	**Refer below:** There is no Ecologically Sensitive Area/ Wildlife Sanctuary/National Park/ Reserved Forest within 10 km radius of the ML area. Hence Preparation and implementation of conservation plan does not arise.
iv.	The Effective safeguard measures shall be taken to control particulate dust level in critical areas, transfer points and the haul road.	**Complied.** Adequate measures were carried out to control particulate dust level during mine was under operation as given below. a. Water sprinkling before loading and unloading the top soil and over

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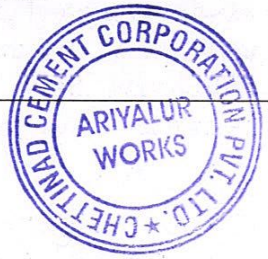
S.No	Specific Condition	Compliance Status
		burden. b. Water sprinkling while handling materials containing finer particles. c. Covering of materials with tarpaulin before commencement of transport d. Speed Control e. Avoiding overloading f. Good maintenance of vehicles and mining machinery There were no transfer points as no conveyor has been installed.
v.	Mine working shall be restricted up to above water label. At no point of time, the mine working should intersect ground water. For working below water table, necessary prior permission shall be obtained from MoEF for which clearance from CGWA for pumping of ground water table and detailed hydro-geological study will be a pre-requisite.	**Complied.** Mine working was restricted above water table. At no point of time, the mine working was intersected ground water table. At present no mining activities.
vi.	Prior permission from competent authority for extraction of ground water shall be taken. Report of CGWA on intersection of ground water table shall be furnished.	**Complied.** The requirement of water for domestic purpose, dust suppression and greenbelt development was met by rainwater collected in the Mine Pit. Hence, extraction of ground water was not required.
vii.	Garland drains, catch drains, Check dams and siltation ponds of appropriate size shall be constructed around the mine working, soil and mineral dumps to prevent run off of water and flow of sediments. The water so collected shall be utilized for watering mine area, roads, green belt development etc. The drains shall be regularly de silted, particularly after the monsoon and maintained properly.	**Complied.** Garland drains/catch drain had been constructed around the top soil & over burden dumps and mine. The rainwater was diverted and collected in the sump of the Mine Pit. The water collected, after settling, was being utilized for domestic purpose, dust suppression and green belt development. The garland drains/catch drains were desilted at regular intervals, particularly after the monsoon and maintained properly.
viii.	Dimension of the retaining wall at the toe of the OB benches within the mine to check run off and siltation should be based on the rainfall data.	**Complied.** The dimension of the retaining wall/garland drains were constructed based on the rainfall data.



S.No	Specific Condition	Compliance Status
ix.	Green belt shall be raised including a 7.5 m wide statutory barrier all around the mining lease, reclaimed & rehabilated areas, around water body, roads etc by planting local species in consultation with local DFO/Agriculture department. The ultimate area to be planted/afforested shall not be less than 1.5 Ha. The density of trees should be around 2000 plants/Ha. Greenbelt shall be developed all along the mining lease area in a phased manner and shall be completed within first 5 years.	**Complied.** The greenbelt development was carried out in consultation with the local DFO in the ML area are given below. ML area : 20.965 ha Saplings planted so far: 19200 Nos Extent of existing greenbelt area:8.90 Ha Tree Density : 2000 /ha
x.	The project authority shall implement suitable conservation measures including suitable rain water harvesting measures to augment ground water resources in the area in consultation with Regional Director, Central ground water board.	**Complied.** Garland drains had been provided to divert and collect rainwater in the sump at the Mine Pit. The water stored in the sump itself helps to augment ground water recharge.
xi.	Regular monitoring of ground water level and quality shall be carried out in and around mining lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The periodic monitoring atleast four times in a year-pre-monsoon(April-May) Monsoon(August),Post Monsoon (November) and Winter(January) ; once in each season shall be carried out in consultation with state Ground water board /Central ground water authority and the data thus collected may be sent regularly to the ministry of environment and forests and its regional office, Bangalore ,central ground water authority and the regional director , central ground water board. If at any stage, it is observed that the ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.	**Complied.** Regular monitoring of ground water quality is being carried out by establishing a network of existing wells on a quarterly basis by M/s. SMS Labs and the data collected are submitted to MoEFCC, Central Ground water Authority and Regional Director, Central Ground water Board. If at any stage,if we observe that the ground water table is getting depleted due to the mining activity,necessary corrective measures will be carried out.
xii.	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and	**Complied.** The vehicles entering into the Mine were checked at the entry point for Pollution Under Control Certificate.

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S.No	Specific Condition	Compliance Status
	in transportation of mineral within the lease area. The mineral transportation with in the mining lease shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Regular maintenance of vehicles were carried out in the mining operations and also in transportation of minerals. The material was covered with tarpaulin before commencement of transportation. The vehicles were not overloaded.
xiii.	The optimum charge for blasting shall be determined based on vibration study. Blasting shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	**Not applicable.** Non-conventional mining system is being adopted. There is no drilling & blastingis being involved.
xiv.	Drills shall either be operated with dust extractors or equipped with water injection system.	**Not applicable.** No drilling activity is involved and At present no mining activities.
xv.	Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should have efficient dust control arrangements. These should be properly maintained and operated.	**Complied.** Water sprinkling was carried out to suppress the dust at material handling area, loading and unloading areas.
xvi.	The company shall stress upon the preventive aspects of occupational health.	**Complied.** Awareness Programme on Occupational Health, Diseases and Safety measures were 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 Required Personal Protective Equipment (PPE) were issued to the employees and usage was ensured. Periodical occupational health surveillance was undertaken to observe any abnormality and to take corrective measures, if needed.
xvii.	Pre placement medical examination and periodical examination of the workers engaged in the project shall be carried	**Complied.** Pre-placement medical examination and periodical medical examination of the

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S.No	Specific Condition	Compliance Status
	out and records to be maintained. For the purpose, Schedule of health examination of the workers should be drawn and followed accordingly.	workers were carried out and records were maintained.
xviii.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets , mobile STP, safe drinking water, medical health care etc. The housing may be in the form of the temporary structures to be removed after the completion of the project.	**Complied.** As this was Mine working, no major construction activity was involved.
xix.	The critical parameter such as RSPM (particulate matter with size less than 1omicron ie ,PM_{10}) and NO_X in the Ambient Air within the impact zone, Peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored. (TDS,DO,PH and Total suspended solids(TSS).The monitored datashall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the public domain. The circular No.J-20012/1/2006-1A II (M) Dated 27/05/2009 issued by MoEF which is available on the website of the ministry www.evfor.nc.in shall al so be referred in this regard for its compliance.	**Complied.** The parameters such as $PM_{2.5}$, PM_{10}, SO2andNOx in the ambient air are being monitored by SMS Labs. The monitored data are being uploaded on the website of the company. The results are within the permissible limits prescribed by DGMS. The nearest habitation is at a distance of 1000m. The domestic effluent generated is being treated in septic tank, followed by dispersion trench. As there was no generation of effluent from mining, no discharge of effluent from Leasehold was envisaged. Hence, the need to monitor effluent was not envisaged.
xx.	The company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter alia i) Standard operating process /procedure to bring in to focus any infringement /deviation/violation of environmental or forest norms/conditions ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance of EC conditions and iii) system of reporting of non	**Complied.** The copies of Corporate Environmental Policy (CEP) and the salient features of the CEP were submitted to MoEFCC, Delhi and the Regional Office of MoEFCC, Chennai.

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S.No	Specific Condition	Compliance Status
	compliance/violation of environmental norms to the board of directors of the company and / or stake holder or share holders.	
xxi.	A final Mine closure plan along with details of corpus fund, shall be submitted to the ministry of Environment and Forest 5 years in advance of final mine closure for approval.	**Agreed to comply.** A Final Mine Closure Plan along with details of Corpus Fund will be submitted to the SEIAA, TN , well in advance, prior to the final mine closure for approval.
xxii.	Depth of water table of the wells located inside the mining area and monitoring wells located around the monitoring area shall be furnished.	**Complied.** There was no well inside the ML Area. Two piezometers were installed to monitor ground water level.The monitored data are being submitted to MoEF& CC, Chennai.
xxiii.	Green belt shall be developed in an area of 2.565 Ha as per the condition of environmental clearance issued on 11.3.2005. This is in addition to green belt development in an area of not less than 1.50 ha under the current Environmental clearance.	**Complied.** Greenbelt had been developed over an area of 8.90ha, planting 19,200saplings

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 SEIAA.	**Complied.** No change in mining technology and scope of working were made.
ii.	No change in calendar plan including excavation, quantum of mineral, Limestone and waste shall be made.	**Complied.** No change in calendar plan including excavation, quantum of mineral, Limestone ore and waste were made.
iii.	Monitoring of well water level and quality of the wells in the locations furnished in the EIA report shall be done during Pre monsoon, and Post Monsoon period and results submitted to the Regional Officer, Bangalore and Ministry Of Environment and Forest, Government of India.	**Complied.** Ground water quality around the Mine area is being monitored on a quarterly basis by SMS Labs and the results are being submitted to the Regional Officer of MoEF & CC, Chennai and Ministry Of Environment and Forest, Government of India.
iv.	The proponent shall conduct Ambient Air Quality Monitoring Survey once in 6 months in the locations furnished in the EIA report and furnish the report to Regional Office ,Bangalore and Ministry	**Complied.** Ambient Air Quality Monitoring is being carried out in four seasons by SMS Labs and the report is being submitted to the Regional Office of MoEF &CC, Chennai and

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S.No	General Condition	Compliance Status
	of Environment and Forests ,Government of India	Ministry of Environment, Forest & Climate Change, Government of India.
v.	Atleast four ambient air quality - monitoring stations shall be established in the core zone as well as in the buffer zone for RSPM (particulate matter with less than 10 micron) and NOx monitoring. Location of the stations should be decided based on meteorological 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 had been established in the core zone and the buffer zone for monitoring $PM_{2.5}$& PM_{10} and NOx and SO_2 in the ambient air in consultation with Tamilnadu Pollution Control Board. Monthly Monitoring is being conducted regularly and reports were submitted.
vi.	Data on ambient air quality RSPM (particulate matter with size less than 10micron ie, PM10) should be regularly submitted to the Ministry including its Regional Office located at Bangalore and SPCB/CPCB once in six months.	**Complied.** Data on Ambient Air Quality ($PM_{2.5}$& PM_{10}, NOx & SO_2) is being regularly submitted to the Regional Office of the MoEF & CC, Chennai, TNPCB and CPCB once in six months.
vii.	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	**Complied.** Adequate measures were carried out to control fugitive emission as given below. a. Water sprinkling before loading and unloading the top soil & over burden. b. Water sprinklingwhile handling materials containing finer particles. c. Covering of materials with tarpaulin before commencement of transport. d. Speed Control. e. Avoiding overloading. f. Good maintenance of vehicles and mining machinery.
viii.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc should be provided with ear plugs /muffs.	Complied. Measures like silencers, greenbelt along the boundary of ML Area, etc., had been provided and good maintenance of Mining Machinery and vehicles was ensured for controlling noise level below 85 dBA. Ear plugs/Muffs were provided to the operators of HEMM.

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S.No	General Condition	Compliance Status
ix.	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 19/05/1993 and 31/12/1993 or as amended from time to time . Oil and grease trap shall be installed before discharge of workshop effluents.	**Complied.** No workshop had been provided within the Mine Lease Area.. Hence, the requirement of providing oil and grease trap was not envisaged.
x.	Personnel working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures if needed.	**Complied.** Persons working in the mine were given adequate training, information on safety and health aspects and the employees were provided with required Personal Protective Equipment (PPE). At present no mining activities.
xi.	A separate environment management cell with suitably qualified personnel shall be setup under the control of Senior Executive, who will report directly report to the Head of organization.	**Complied.** A separate Environmental Cell was created to take care of EHS function and the Head of the Cell directly reported to the Head of the Organization for complying with environmental regulations and implementing Pollution control measures.
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 should be reported to the Ministry and its Regional Office located at Bangalore.	**Complied.** The funds earmarked for environmental protection measures were kept in separate account. Year wise expenditures reports are being submitted to the ministry and its regional office located at Chennai.
xiii.	The Project Authority 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 date of start of land development work.	**Complied.** 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 was not envisaged. The date of commencing land development work had been informed to the Regional Office of MoEF, Bangalore.
xiv.	The Regional office of this ministry located at bangalore shall monitor	**Complied.** Full cooperation to the officer (s) of the

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S.No	General Condition	Compliance Status
	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.	Regional Office of MoEF & CC, Chennai was extended by furnishing the requisite data / information / monitoring reports.
xv.	The project proponent shall submit six monthly reports on the status of compliance of the stipulated Environmental clearance conditions including results of monitored data(both in hard copies as well as by e-mail) to the MoEF, its Regional office Bangalore, the respective Zonal office of CPCB and SPCB. The proponent shall upload the status of compliance of environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of the MoEF, Bangalore, the respectlve Zonal offlce of CPCB and SPCB.	**Complied.** The six monthly reports on the status of compliance of the stipulated environmental clearance conditions and the results of monitored data are being submitted to the MoEF & CC, its Regional Office at Chennai, the Zonal Office of Central Pollution Control Board, Bangalore and the Tamilnadu Pollution Control Board.
xvi.	A copy of the Environmental Clearance letter shall be sent by the proponent to concerned Panchayat, Municipal Corporation, Urban Local Body and the local NGO, if any from whom suggestions /representations, if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	**Complied.** Copy of the Environmental Clearance letter was submitted to local Panchayat on 15.10.2016 and a copy of the same displayed in the website of the company.
xvii.	The SPCB should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector Office/Tehsildar's office for 30 days.	**Complied and displayed.**
xviii.	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of clearance letter is available with SPCB and also at the website of the MoEF at http://envfor.nic.in and a copy of the	**Complied.** Advertised in English (New Indian Express) and in Tamil (Dinamani).The 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.

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S.No	General Condition	Compliance Status
	same should be forwarded to Regional Office of this Ministry located at Bangalore.	
xix.	The environmental clearance is valid for 10 years from the date of issue.	**Condition Noted.**
xx.	The environmental clearance is being issued without prejudice to the action initiated under Environmental (protection)Act, 1986 or any court case pending or any other court order shall prevail.	**Agreed to comply.**
xxi.	The SEIAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environmental Protection.	**Agreed to comply.**
xxii.	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986	**Agreed to comply.**
xxiii.	The above conditions will be enforced inter alia under the provisions of the Water (Prevention and control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act, 1981, the Environment Protection Act 1986 and Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Honorable Supreme court of India/High court of Chennai and other court of law relating to the subject matter.	**Agreed to comply.**
xxiv.	The environmental statement for each financial year ending 31 st march in FORM -V as is mandated to be submitted by the project proponent to the concerned SPCB as prescribed under the Environmental (Protection) Rules 1986 as amended subsequently shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Office of the MoEF , Bangalore by E-mail.	**Complied.** The environmental statement for the financial year ending 31st March 2023, in Form – V, has been submitted on 25.05.2023 to the Tamilnadu Pollution Control Board and the Regional Officer of the Ministry of Environment, Forest & Climate Change, Chennai. The same has been put on the website of the company and also sent to the Regional Officer of the Ministry of Environment, Forest & Climate Change, Chennai by e-mail. The status of compliance of

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S.No	General Condition	Compliance Status
		environmental clearance conditions is also being uploaded in the company website.
xxv.	Any appeal against this environmental clearance shall lie with National Green Tribunal, if preferred with in a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010	**Conditions Noted.**

For Chettinad Cement Corporation Private Limited

R.P. Muthiah
Vice President (Works)

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ANNEXURE 2

Chettinad Cement Corporation Private Limited -Unjini Limestone Mine													
Unjini 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	Near Mines Office	60.3	56.6	58.5	26.4	24.7	25.6	10.3	9.0	9.7	20.2	20.2	20.2
2	Near Haul Road	62.5	50.0	56.3	25.6	19.2	22.4	9.0	8.9	9.0	16.7	16.7	16.7
3	Unjini Village	54.6	54.5	54.6	27.0	26.7	26.9	10.9	9.5	10.2	19.1	19.1	19.1
4	Nathampalayam Village	57.3	53.0	55.2	23.3	21.7	22.5	9.4	8.1	8.8	18.2	18.2	18.2
5	Elagaicherry village	56.7	56.7	56.7	29.0	29.0	29.0	8.6	8.6	8.6	23.3	23.3	23.3
6	Rayampuram village	58.0	58.0	58.0	25.5	25.5	25.5	9.5	9.5	9.5	20.6	20.6	20.6
7	Sendurai village	54.8	54.8	54.8	28.3	28.3	28.3	10.4	10.4	10.4	19.5	19.5	19.5
8	Maruvathur village	57.1	57.1	57.1	26.6	26.6	26.6	9.9	9.9	9.9	22.8	22.8	22.8
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)

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ANNEXURE 3

Chettinad Cement Corporation Private Limited -Unjini Limestone Mine								
Unjini 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	view point	dB(A)	17.4	17.9	17.6	15.4	15.6	15.5
2	Loading Area	dB(A)	17.5	17.8	17.7	15.4	15.9	15.7
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	Unjini Village	dB(A)	16.9	17.3	17.1	13.6	14.1	13.9
2	Nallambalayam Village	dB(A)	16.7	17.2	17.0	13.4	13.9	13.7
Limit (L_{eq})		dB(A)	55			45		

for **Chettinad Cement Corporation Private Limited**

R.P. Muthiah
Vice President (Works)

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ANNEXURE 4

Chettinad Cement Corporation Private Limited - Unjini Limestone Mine						
Unjini Village, Ariyalur District,Tamilnadu						
Ground /Surface Water Quality Monitoring Report (Oct 2022 -Mar 2023)						
S. No	Parameter	UoM	GW1	GW2	SW3	Limit
			Dec-21	Dec-21	Dec-21	
1	pH	-	7.72	7.55	7.37	5.5 - 9.0
2	Temperature	Deg C	31.2	30.825	31.1	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	571.5	520	88	2100
6	Chloride as Cl	mg/l	135.5	128	39	1000
7	Sulphide as S	mg/l	BLQ	BLQ	BLQ	2
8	Sulphate as SO_4	mg/l	55	47	BLQ(LOQ:1.0)	1000
9	Fluride as F	mg/l	0.25	0.25	BLQ(LOQ:1.0)	2
10	Sodium	mg/l	64.5	60.5	BLQ(LOQ:1.0)	-
11	Copper	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	3
12	Zinc as Zn	mg/l	BLQ(LOQ:0.002)	BDL	BDL	1
13	Phenolic compounds as C_6H_5OH	mg/l	BDL(DL:0.001)	BDL(DL:0.001)	BDL(DL:0.001)	1
14	Oil & Grease	mg/l	BLQ	BLQ	BLQ	10
15	Boron as B	mg/l	0.62	0.042	0.033	2
16	BOD 3 days $27^{O}C$	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 Chrominum as Cr	mg/l	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	BLQ(LOQ:0.002)	2
22	Hexavalant Chrominum	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 Kjeldahl Nitrogen as N	mg/l	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	100
30	Cyanide as CN	mg/l	BDL(DL:0.01)	BDL(DL:0.01)	BDL(DL:0.01)	0.2
31	Nickel as Ni	mg/l	BLQ	BLQ	BLQ	3
GW1 . Unjini Village,			BLQ: Below Qualification Limit.			
GW2 : Elangai cherry, SW3 : Mine Sump Water			BDL : Below Detectable Level			

for **Chettinad Cement Corporation Private Limited**

R.P. Muthiah
Vice President (Works)

CHETTINAD CEMENT CORPORATION PRIVATE LTD. ARIYALUR WORKS

Annexure-5

Dt.: 01.08.2022

Chettinad cement

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

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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:71/AAQS/2022-2023 Dated:19.01.2023

1. Name and Address of the Industry : M/s.Chettinad Cements Corporation Private Limited,
   Unjini Limes Stone Mine,
   Unjini Village,
   Sendurai TK,
   Ariyalur District.
2. Date of Survey : 08.12.2022
3. Duration of Survey : Eight Hours
4. Category : Red/Small
5. Consent Order No. : 2208243538170

Ambient Temperature (°C)	Min	Max	**Relative Humidity (%)**	Min	Max
	28	32		43	69
Weather Condition	Clear		**Rain Fall (mm)**	Nil	
Predominant Wind Direction	NE to SW		**Mean Wind Speed (Km/hr)**	9.2	

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 near NNE boundary of the mines	NNE	300	2.0	54	5.1	7.5
2.	On the top of scaffolding near the mines Entrance	SE	350	2.0	58	7.6	9.4
3.	On top of scaffolding near SW corner of the mines	SW	300	2.0	65	11.4	13.2
4.	On top of scaffolding near NW corner of the mines	NW	300	2.0	60	9.5	11.7

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: 71/AAQS/2022-2023 Dated:19.01.2023

1	Name of the Industry		M/s.Chettinad Cements Corporation Private Limited,	
2.	Address of the Industry		Unjini Limes Stone Mine, Unjini Village, Sendurai TK, Ariyalur District.	
3.	Date of Survey		08.12.2022	
4.	Consent Order No.		2208243538170	
5.	Category		Red/Small	
Type of Survey		Ambient	Time of Survey	Day
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.	15.00 to 16.20

SI No	Location	Duration (m)	Distance (m)	Direction	Sound Level –dB(A)		
					L_{eq}	LMin	LMax
1.	Near NE boundary of the mines	10	300	NE	46.2	35.7	61.9
2.	Near SE corner of the mines	10	350	SE	47.1	36.2	62.4
3.	Near SW corner of the mines	10	300	SW	47.6	34.2	60.1
4.	Near western side of the mines	10	300	W	42.5	34.0	55.7
5.	Near NW corner of the mines	10	300	NW	46.3	35.8	62.8

19/1/23

Environmental Scientist,

19/01/23

Assistant Director,
AEL,TNPCB,Trichy-15.