## CCCPL/DACHEPALLI/ENV/2020/21

Date: 30th May, 2020



Additional Principal Chief Conservator of Forests (C)
Ministry of Environment, Forests and Climate Change
Regional Office (SEZ), 1<sup>st</sup> and 2<sup>nd</sup> Floor, Handloom Export Promotion Council,
Cathedral Garden Road, Nungambakkam,
Chennai- 34 (Tamilanadu)

Sub: Submission Six Monthly Compliance Report for Environmental Clearance of 5.0 MTPA Captive Limestone Mine M/s Chettinad Cement Corporation Private Limited located at Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh for the period of October 2019 to March 2020 - Reg.

Ref: Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Dear Sir,

Reference with the Environmental Clearance cited above, we are herewith attached six monthly compliance report for the period of October 2019 to March 2020 for 5.0 MTPA Captive Limestone Mine of M/s Chettinad Cement Corporation Private Limited located at Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh.

This is for your kind information please.

Thanking you,

Yours faithfully,

For Chettinad Cement Corporation Private Limited,

K CHANDRASEKHAR Vice President (Projects)

Copy:

- Regional Directorate, Central Pollution Control Board, A-Block, Nisarga Bhavan, 1<sup>st</sup> and 2<sup>nd</sup> Floors, 7<sup>th</sup> D Cross, Thimmaiah Road, Shivanagar, Bengaluru-560079 (Karnataka)
- Environmental Engineer, Andhra Pradesh Pollution Control Board, Regional Office, D.No: 4-5-4/5C, 4/3 Navabharath Nagar, Ring Road
   GUNTUR – 522006 (Andhra Pradesh).

Encl: A/a

CIN: U93090TN1962PTC004947



## Pedagarlapadu Limestone Mine – 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status		
SPECIF	SPECIFIC CONDITIONS:			
i.	The environmental clearance is subject to obtaining the prior permission from CGWA for intersecting the ground water table.	<ul> <li>Permission obtained from Commissioner, Panchayat Raj &amp; Rural Development &amp; Administrator, APWALTA, Government of Andhra Pradesh for "withdrawal of 2000 KLD of mine pit/ground water to dewater from mine pit and continue the mining operations below water table" vide Lr. No. PRRR05- 11028/21/2019-SLNA-GIS-CORD, Dated 20.01.2020.</li> </ul>		
		<ul> <li>Andhra Pradesh state is not regulated by CGWA. Hence, application was submitted to Administrator, APWALTA under Andhra Pradesh Water, Land and Trees Act, 2002 &amp; 2004 and obtained permission.</li> </ul>		
ii.	The project proponent will implement and comply with all applicable safeguard measures as provided in OM No. Z-1I013/57/2014-IA.II(M) dated 29th October, 2014.	<ul> <li>Safeguard measures as provided in OM No. Z-1I013/57/2014-IA.II(M) dated 29th October,2014 are being implemented &amp; followed.</li> <li>Compliance of the safeguard measures is presented as Annexure-1.</li> </ul>		
iii.	The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board and effectively implement all the conditions stipulated therein.	Consent to Establish & Consent for operation (Valid till 31.03.2024) for the Pedagarlapadu Limestone Mine has been obtained from Andhra Pradesh Pollution Control Board. All the conditions stipulated in the Consent Orders are being implemented.		
iv.	A buffer zone of 50 m (green belt) on either side of the nallah passing through lease area should be developed for protection of the nalla/stream.	A buffer zone of 50 m (green belt) on either side of the nallah passing through the mining lease area is being developed for protection of the nallah/stream.		
V.	The loose solids should be kept separately from flowing water and flow of effluents to nearby areas outside the lease hold shall be prevented. The paved drains along with arrangements for over burden Dumps and their drainage may be clearly depicted on a contoured map of the mining area.	<ul> <li>By providing garland drains and catch drains with gully plugs, the loose solids will be separated from flowing water.</li> <li>As there will be no generation of any industrial effluent from the mine, no effluents will flow to nearby areas outside the lease hold. There is no generation of over burden (OB) in the mine area. Hence, the requirement of paved drains and marking the same on the contour map of the Mine area not envisaged.</li> </ul>		



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# Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
vi.	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for conservation and protection of the 1 <sup>st</sup> and 2 <sup>nd</sup> order streams, emanating or passing through the mine lease during the course of mining operation.	<ul> <li>No natural watercourse and water resources will be obstructed due to mining operations.</li> <li>Adequate measures like 50 m safety barrier on both sides of the nallah passing through the mining lease area and greenbelt in the safety barrier will be provided to conserve and protect the water streams during the course of mining operation.</li> </ul>
∨ii.	The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	The top soil (Black Cotton Soil –BCS) will be used for forming the bunds on both sides of the nallah passing through the mining lease area. After completing the bunds along the nallahs, BCS will be used for greenbelt development along the boundary of the Mining Lease Area.
viii.	Appropriate safeguard measures shall be taken to ensure stability and drainage of dump so that no solid waste/debris flows into the nallah.	There is no Over Burden (OB) and formation of dumps in the mine lease area. Hence, this condition is not applicable to our mine.
ix.	The Over Burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and their phase-wise stabilization shall be carried out. Proper terracing of OB dump(s) shall be carried out. The over burden dump(s) shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment, Forest and Climate Change and its Regional office, Chennai on six monthly bases.	There is no Over Burden (OB) in the mine area. Hence, this condition is not applicable to our mine.
X.	Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, temporary OB and mineral dumps to arrest flow of silt and sediment directly into the adjoining river and other water bodies. The water so collected should be utilized for watering the mine area roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly.	<ul> <li>There is no over burden and mineral dumps in this mine. However, catch drains and siltation ponds of appropriate size will be constructed for the working pit to arrest flow of silt and prevent sediments from reaching nearby water bodies.</li> <li>The water collected will be utilized for water spraying on haul roads, greenbelt development etc.</li> <li>The drains will be regularly desilted, particularly after the monsoon and will be maintained properly.</li> </ul>



## Pedagarlapadu Limestone Mine – 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xi.	Dimension of the retaining wall at the toe of the OB dump(s) and the OB benches within the mine to check run-off and siltation should be based on the rain fall data.	There is no over Burden (OB) available in the mine area. Hence, this condition is not applicable.
xii.	Plantation shall be raised in an specified area including a 7.5 m wide green belt in the safety zone around the mining lease, OB dump(s), along the roads, etc. by planting the native species in consultation with the local DFO/Agriculture Department. In addition, plantation shall also be raised in the backfilled and reclaimed area and around water body. The density of the trees should be around 1500 plants per ha.	safety zone along the mining lease boundary. The green belt will be developed along the roads, in the safety barrier proposed on both sides of the nallah passing through the Mine etc. by planting the native species.
xiii.	Effective safeguard measures, such as Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should been assured that the Ambient Air Quality parameters conform to the norms prescribed by the CPCB in this regard.	<ul> <li>(no conveyors and no transfer points) within the mining lease area. Regular water sprinkling is being carried out at the area of mining and loading &amp; unloading points.</li> <li>Extensive water sprinkling will be carried out on haul roads.</li> </ul>
xiv.	Regular monitoring of water quality upstream and downstream of perennial nallahs falling in the impact zone shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment, Forest and Climate Change, its Regional Office, Chennai, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	
XV.	Appropriate measures shall be taken for treatment of the upper catchment of the mine lease area.	Appropriate measures will be taken for treatment of the upper catchment of the mine lease area. Garland drains/Catch drains/Trenches with gully plugs and a sump will be provided.



### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xvi.	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	The conservation measures to augment the ground water resources in the area will be Implemented in consultation with the Ground Water Department, Andhra Pradesh/ Regional Director, Central Ground Water Board and as recommended in the Hydro-geological Study Report, (included in the EIA Report).
xvii.	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May),monsoon (August), post-monsoon(November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office Chennai, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.	
xviii.	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water, required for the project.	Permission obtained from Commissioner, Panchayat Raj & Rural Development & Administrator, APWALTA, Government of Andhra Pradesh for "withdrawal of 2000 KLD of mine pit/ground water to dewater from mine pit and continue the mining operations below water table" vide Lr. No. PRRR05-11028/21/2019-SLNA-GIS-CORD, Dated 20.01.2020.
xix.	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Suitable rainwater harvesting measures on long term basis will be planned and Implemented in consultation with the Ground Water Department, Andhra Pradesh/ Regional Director, Central Ground Water Board and also as recommended in the Hydro-geological Study Report (included in the EIA Report).



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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
XX.	Appropriate mitigative measures should be taken to prevent pollution of nearby River in consultation with the State Pollution Control Board.	Appropriate mitigative measures like zero discharge system, protection of nallah passing the Mining Lease Area with safety barrier and greenbelt, controlling fugitive emission with extensive water sprinkling, greenbelt along the boundary of Mining Lease Area etc., will be taken up to prevent pollution of nearby water resources.
xxi.	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 mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	<ul> <li>Vehicular emissions will be kept under control and regularly monitored by maintaining the PUC Certificates.</li> <li>Measures will be taken for proper and good maintenance of vehicles used in mining operations and in transportation of mineral.</li> <li>Vehicles carrying the mineral will not be overloaded and more than height of the body.</li> </ul>
xxii.	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Controlled blasting will be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders will be implemented by following the precautions indicated below.  > Carrying out blasting operations with low density explosives to have a heaving effect than an explosion.  > We were using Nonel delay detonators to minimize charge per delay, ground vibration and generation of fly rock.
xxiii.	Drills shall either be operated with dust extractors or equipped with water injection system.	The drilling dust is being controlled by wet drilling system provided in the drill machine.
xxiv.	Mineral handling area shall be provided with the adequate number of high efficient dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	<ul> <li>The mining area will be sprayed with water to suppress dust. Water sprinkling will be ensured while handling materials containing finer particles.</li> <li>There will not be any conveyor to transport the mined Limestone to the Cement plant. Hence, there will no transfer points, which need dust control system.</li> </ul>
XXV.	Sewage Treatment Plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	capacity have been installed for the colony.



### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xxvi.	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For this purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Pre-placement medical examination is being carried out. Periodical medical examination of the workers engaged in the project will be carried out and records will also be maintained. For this purpose, the schedule of health examination of the workers will be drawn and followed accordingly.
xxvii.	Regular monitoring of free silica in the dust will be carried out and records maintained. It shall be ensured that the levels of silica do not exceed the prescribed limit. The workers will be provided with personal protective measures to guard against inhaling silica dust	Regular monitoring of free silica in the dust will be carried out and records will also be maintained. It will be ensured that the levels of free silica do not exceed the prescribed limit. The workers will be provided with personal Protective measures to guard against inhaling silica dust.
xxviii.	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 healthcare, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	As the proposal is for mining activity, no major construction work is envisaged. Only Office Shed and toilet will be constructed, which do not require any accommodation facilities for the construction labour.
xxix.	The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered flora as well as endangered fauna in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office at Chennai within 3 months.	<ul> <li>There is no endangered fauna or endangered flora in the study area (As per EIA studies). Hence, the need for preparation of conservation plan for flora and fauna and allocation of funds for Implementation of the conservation plan are not envisaged.</li> <li>However, Bund will be developed along the lease boundary. Greenbelt will be developed in phase manner along mining lease boundary with local/native species. Control blasting techniques will be adopted. Garland drains will be developed along the mine pit.</li> </ul>



### Pedagarlapadu Limestone Mine - 5.0 MTPA

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## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xxx.	The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-,IA.II(M)dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change, which is available on the website of the Ministry www.envfor.nic.inshall also be referred in this regard for its compliance.	<ul> <li>The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer will be monitored periodically, after commencement of full-fledged mining operation.</li> <li>The monitored data will be uploaded on the website of our company as well as displayed on a display board at a suitable location near the main gate of our company.</li> <li>There will be no generation of industrial effluent from the mining operation and the domestic waste water will be sent to septic tank followed by soak pit.</li> </ul>
xxxi.	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.	Noted. A Final Mine Closure Plan along with details of Corpus Fund will be submitted to the Ministry of Environment, Forest and Climate Change, 5 years in advance prior to the final mine closure for approval.
xxxii.	The project proponent shall undertake all the commitments made during the public hearing and effectively address the concerns raised by the locals in the public hearing as well as during consideration of the project, while implementing the project.	<ul> <li>Major concerns raised during public hearing were employment to the locals, maintain pollution free environment &amp; develop basic amenities in nearby villages.</li> <li>Employment was given to local eligible people and other concerns will be addressed through CSR/ESC plan during mine operation.</li> </ul>
GENER	AL CONDITIONS:	
i.	working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.	Condition is duly noted. Prior approval will be obtained from MOEC CC for change in technology and scope of working if any.
ii.	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Condition is duly noted. No change in the calendar plan including excavation, quantum of mineral limestone and waste will be made.



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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
iii.	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the StatePollution Control Board.	<ul> <li>Four AAQ stations are established in the core zone as well as in the buffer zone based on meteorological data.</li> <li>NABL approved Third Party Laboratory is engaged to monitor the AAQ parameters.</li> <li>Monitored data of PM10, PM2.5, SO2 &amp; NOx of AAQ stations established at buffer zone is presented in Annexure-5.</li> </ul>
iv.	Data on ambient air quality RSPM(Particulate matter with size less than 10micron i.e., PM10) & NOx should be regularly submitted to the Ministry of Environment, Forest and Climate Change including its Regional office located at Chennai and the State Pollution Control Board / Central Pollution Control Board once in six months.	AAQ monitored data is being regularly submitted to MOEF CC Regional office located at Chennai and the APPCB / CPCB along with six monthly compliance reports.
V.	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Fugitive dust emissions from all the sources will be controlled regularly. Water spraying arrangement on haul roads, loading and unloading points are provided and properly maintaining.
vi.	Measures should 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.	<ul> <li>Measures like good maintenance of the mining machinery and vehicles, acoustic enclosures, controlled blasting, greenbelt development along the boundary of ML Area etc., will be ensured for noise levels below 85 dBA in work environment.</li> <li>Ear plug/Muffs will be provided to the operators of HEMM on commencement of mining.</li> </ul>
∨ii.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December,1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	<ul> <li>There will not be any industrial effluent generated from mining operations.</li> <li>No workshop has been proposed in the ML area. Hence, there will not be any need for providing treatment system for water.</li> <li>Mining equipment will be maintained &amp; serviced at the workshop provided in our cement plant.</li> </ul>



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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
viii.	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. 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.	Personnel working in the mine will be provided with adequate training, information on safety and health aspects. Personal Protective Equipment (PPE) will also be given to the mines personnel and the usage of the same by them will also be ensured.
ix.	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Separate environmental management cell with suitable qualified personnel is in place. Organizational structure for environmental management is depicted in <b>Annexure</b> –6.
X.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Chennai.	
xi.	The project authorities should inform the Regional Office located at Chennai regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Intimation on final approval of the project by the concerned authorities and commencement of land development works dated 27.03.2019 was submitted to MOEFCC Regional Office located at Chennai on 20.11.2019.
xii.	The Regional Office of this Ministry located at Chennai shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Full cooperation will be extended to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.



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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xiii.	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 email) to the Ministry of Environment, Forest and Climate Change, its Regional Office Chennai, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment, Forest and Climate Change, Chennai, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	<ul> <li>Six monthly compliance reports on the statues of compliance of the stipulated Environmental Clearance conditions including results of monitored data is being submitted to Ministry of Environment, Forest and Climate Change, its Regional Office Chennai through email (soft copy in PDF) and in hard copies to CPCB, ZO at Bangalore &amp; APPCB, RO at Guntur.</li> <li>Compliance reports are being displayed in our website at following link.         https://www.chettinad.com/cements_plants.php?site=Dachepalli     </li> </ul>
xiv.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ 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.	<ul> <li>EC clearance letter sent to concerned Pedagarlapdu Village Panchayat &amp; Kesanupalli Village Panchayat, Dachepalli Mandal and the District Collector, Guntur.</li> <li>The Environmental Clearance letter has been put on the web site of the company.</li> </ul>
XV.	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.	
xvi.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall 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 Regional Office of the Ministry of Environment, Forest and Climate Change, Chennai by e-mail.	Environmental Statement for each financial year ending 31 <sup>st</sup> March in Form-V will be submitted to State Pollution Control Board& will be put on our company website.



### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
xvii.	The project authorities should advertise at least in two local newspapers of the District or State widely circulated in which the project is located and one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of thec1earnce letter informing that the project has been accorded Environmental Clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . A copy of the same should be forwarded to the Regional Office of this Ministry located at Chennai.	<ul> <li>The advertisement in widely circulated two local newspapers (THE HINDU dated 24.12.2015 (in English) &amp; EENADU dated24.12.2015 (in Telugu) of the Guntur District, Andhra Pradesh have been published informing the public that the Environmental Clearance had been accorded and a copy of the clearance letter is available with the Andhra Pradesh Pollution Control Board and also at web site of the Ministry of Environment, Forests and Climate Change at http://envfor.nic.in.</li> <li>The copies of the advertisements have already been submitted to the Regional Office of this Ministry located at Chennai. Photos of the newspaper clippings presented in Annexure –7.</li> </ul>



(Formerly Chettinad Cement Corporation Limited)

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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

#### **ANNEXURE-1**

# Compliance with applicable safeguard measures as provided in OM No. Z-11013/57/2014-IA.II(M) dated 29th October, 2014.

SI. No.	Condition	Compliance Status
1	The Project Authority shall adopt Best Mining Practice for the given mining conditions. In the mining area, adequate number of check dams, retaining walls/structures, garland drains and settling ponds should be provided to arrest the wash-off with rainwater in catchment area.	<ul> <li>Wet drilling and controlled blasting technics is being practiced. The following preventive measures are being followed for control of ground vibrations, fly rocks and generation oversize boulders.</li> <li>Carrying out blasting operations with low density explosives to have a heaving effect than an explosion.</li> <li>Using NONEL detonators in blasting for reduce the charge per delay for control the ground vibrations.</li> <li>Practicing the bottom initiation system with deck charging to reduce the noise levels &amp; fly rock generation.</li> <li>The Garland drains are being developed around the ML area.</li> <li>The Check dams will be constructed in the Nalla passing across the ML area for rain water harvesting and to improve the ground water levels.</li> </ul>
3	The natural water bodies and or streams which are flowing in and 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 Authorities have to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table.  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. The Project Proponents (PPs) must ensure that the biological clock of the villagers is not disturbed by orienting the floodlights/ masks away from the villages and keeping the noise levels well within the prescribed limits for day/night hours.	<ul> <li>The natural water bodies and or streams which are flowing in and around the villages are not disturbed due to our mining activities.</li> <li>Regular monitoring of ground water quality and levels are being carried out.</li> <li>All necessary precautions being taken to comply these conditions.</li> <li>Noise levels are maintaining within the limits for day/night.</li> </ul>



### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
4	The Project Authority shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing. In this context, Project Authority should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide midday shelter from the scorching sun should be scrupulously guarded against felling, lest the cattle abandon the grazing ground or return home by noon.	<ul> <li>Project authority will ensure to make necessary alternative arrangements, in consultation with the State Government to provide alternate areas for livestock grazing.</li> <li>We will follow &amp; implement the directions of Hon'ble Supreme court.</li> </ul>
5	Wherever blasting is undertaken as part of mining activity, the Project Authority shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternative means of mineral extraction, such as ripper/dozer combination/rock breakers/ surface miners etc. should be seriously considered and practiced wherever practicable. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides that no mining operations shall be carried out within 50 meters of public works such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.	We will be followed as per conditions stipulated.
6	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. Crusher and material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt conveyors should be fully covered to avoid air borne dust.	Main haulage road will be provided with permanent water sprinklers and provision for regular dust suspension on haul roads with water tanker is arranged. The Crushing unit, belt conveyors and material transfer points are provided in the Plant area with adequate dust control systems like bag filters, covered conveyors water spraying etc.
7	The Project Authority shall ensure that the productivity of agricultural crops is not affected due to mining operations. Crop Liability Insurance Policy has to be taken by the PP as a precaution to compensate for any crop loss. The impact zone shall be 5km from the boundary of mine lease area for such insurance policy. In case, several mines are located in a cluster, the Associations of owners of the cluster mines, formed inter-alia, to sub-serve such an objective, shall take responsibility for securing such Crop Liability Policy.	We will ensure that the any productivity of agricultural crops is not affected due to our mining operations. The other points in condition will be complied.



## Pedagarlapadu Limestone Mine – 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI.	Condition	Compliance Status
No.		' '
8	In case any village is located within the mining leasehold which is not likely to be affected due to mining activities	Not applicable in our case
	during the life of mine, the Expert Appraisal Committee	
	(EAC) should consider the proposal of Environmental	
	Clearance (EC) for reduced mining area. The Mining	
	lease may be executed for the area for which EC is	
	accorded. The mining plan may also be accordingly	
	revised and required stipulations under the MMDR Act,	
	1957 and MCR, 1960 met.	
9	Transportation of the minerals by road passing through	Not applicable in our case
	the village shall not be allowed. A 'bypass' road should	
	be constructed (say, leaving a gap of at least 200	
	meters) for the purpose of transportation of the	
	minerals so that the impact of sound, dust and accidents	
	could be mitigated. The PP shall bear the cost towards	
	the widening and strengthening of existing public road	
	network in case the same is proposed to be used for the	
	Project. No road movement should be allowed on	
	existing village road network without appropriately increasing the carrying capacity of such roads.	
10	Likewise, alteration or re-routing of foot paths,	Not applicable in our case
	pagdandies, cart roads, and village infrastructure/public	The applicable in our case
	utilities or roads (for purposes of land acquisition for	
	mining) shall be avoided to the extent possible and in	
	case such acquisition is inevitable, alternative	
	arrangements shall be made first and then only the area	
	acquired. In these types of cases, Inspection Reports by	
	site visit by experts may be insisted upon which should	
	be done through reputed Institutes.	



### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh - 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

SI. No.	Condition	Compliance Status
No. 11	As CSR activities by Companies including the Mining Establishments has become mandatory up to 2% of their financial turn-over, Socio Economic Development of the neighborhood Habitats could also be planned and executed by the PPs more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers on the lines as required under TOR. "R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village located in the mine lease area will	Since our mine under development stage, we have spent Rs 12.6 Lakhs towards Socio Economic Development activities under CSR programme.  R&R is not required as there is no village/habitation was relocated for this project.
	be shifted or not. The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the EIA report."	



## Pedagarlapadu Limestone Mine – 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

# Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

## **ANNEXURE-2**

#### **Greenbelt Development**

Year of Plantation	No's Saplings Planted	Area in Ha	Survival Rate (%)
2018-19	2700	2.43	97%
2019-20	2130	1.81	100%
Total	4830	4.24	







## Pedagarlapadu Limestone Mine – 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015





Plantation in Mine lease & along the lease boundary



(Formerly Chettinad Cement Corporation Limited)

### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

#### **ANNEXURE-3**

## Water Quality of Upstream & Downstream Nallahs

0.1			Oct-D	Dec'19	Jan-N	lar'20
SI. No.	Parameter Name	UoM	Upstream Nallah Water	Downstream Nallah Water	Upstream Nallah Water	Downstream Nallah Water
1	Total coliforms	MPN	Absent	Absent	Absent	Absent
2	Colour	Hazen	15	20	15	20
4	Turbidity	NTU	15.5	23.5	17.3	24.3
5	pH @ 25°C		7.55	7.59	7.73	7.82
6	Taste		350	375	365	405
7	Total Dissolved Solids @180°C	mg/L	0.011	0.005	0.013	0.005
8	Boron as B	mg/L	138	138	71	138
9	Calcium Hardness (as CaCO3)	mg/L	54	57	62	55
10	Chloride as Cl	mg/L	0.15	0.32	0.3	0.4
11	Fluoride as F	mg/L	0.49	1.8	0.53	1.3
12	Iron as Fe	mg/L	45	54	61	71
13	Magnesium Hardness (as CaCO3)	mg/L	BLQ	0.002	BLQ	0.003
14	Copper as Cu	mg/L	10	9	12	9.7
15	Nitrate as NO <sub>3</sub>	mg/L	BLQ	BLQ	BLQ	BLQ
16	Selenium as Se	mg/L	70	75	65	83
17	Sulphate as SO <sub>4</sub>	mg/L	138	192	133	209
18	Total Hardness as CaCO <sub>3</sub>	mg/L	146	153	157	159
19	Total Alkalinity as CaCO <sub>3</sub>	mg/L	40	65	65	56
20	Chemical Oxygen Demand (COD)	mg/L	32.4	34	30.8	36
21	Sodium as Na	mg/L	606	652	640	690
22	Conductivity @ 25°C	μS/cm	BDL	BDL	BDL	BDL
23	Free Residual Chlorine	mg/L	BDL	BDL	BDL	BDL
24	Phenolic Compound	mg/L	BLQ	BLQ	BLQ	BLQ
25	Cadmium as Cd	mg/L	BDL	BDL	BDL	BDL
26	Cyanide as CN	mg/L	BLQ	0.002	BLQ	BLQ
27	Lead as Pb	mg/L	BLQ	BLQ	BLQ	BLQ
28	Mercury as Hg	mg/L	0.003	0.002	BLQ	BLQ
29	Total Arsenic as As	mg/L	BDL	BDL	BDL	BDL
30	Hexavalent chromium Cr6+	mg/L	8.0	10	9.4	12
31	Silica as SiO2	mg/L	Absent	Absent	Absent	Absent



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Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

# Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

#### **ANNEXURE-4**

#### **Ground Water Levels**

SI.		Meters Below Ground Level				
No.	Piezometer Location	Post Monsoon Season 26.12.2019	Winter Season 18.03.2020			
1	Near Mine Office	17.5	19.0			
2	Plant Site Near Dormitory	10.3	13.1			
2	Takkellapadu Village	12.9	13.6			
3	Veerapuram Village	19.0	20.4			
4	Pedagarlapadu Village	15.4	16.2			
5	Kachavaram Village	17.0	19.6			

# Ground Water Quality (Requirement Limits as per IS 10500-2012) Post Monsoon Season

SI. No.	Parameter Name	UoM	Loc-1	Loc-2	Loc-3	Loc-4	Loc-5	Loc-6			
	MICROBIOLOGICAL ANALYSIS										
1	Total coliforms	MPN	Absent	Absent	Absent	Absent	Absent	Absent			
ORGA	ORGANOLEPTIC AND PHYSICAL PARAMETERS										
2	Colour	Hazen	<0.1	2	2	2	2	5			
3	Odour	-	Agree	Agree	Agree	Agree	Agree	Agree			
4	Turbidity	NTU	<0.1	8.7	4.5	1.5	<0.1	4.9			
5	pH @ 25°C	-	7.79	7.04	7.13	8.3	7.01	7.56			
6	Taste		Agree	Agree	Agree	Agree	Agree	Agree			
7	Total Dissolved Solids @180°C	mg/L	1094	654	922	178	1132	745			
GENE	RAL PARAMETERS CONCERN	ING SUBST	ANCES UN	IDESIRABLI	E IN EXCE	SSIVE AM	OUNTS				
8	Boron as B	mg/L	0.204	0.072	0.172	0.003	0.161	0.069			
9	Calcium Hardness (as CaCO3)	mg/L	240	270	230	60	320	240			
10	Chloride as Cl	mg/L	38	105	145	24.5	234.9	125			
11	Copper as Cu	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ				
12	Fluoride as F	mg/L	0.65	0.45	0.53	0.24	0.48	0.41			
13	Iron as Fe	mg/L		0.3	0.18	0.3	0.12	0.19			
14	Magnesium Hardness (as CaCO3)	mg/L	120	100	70	34	110	70			
15	Manganese as Mn	mg/L	0.003	0.004	0.012	0.002	0.011	0.003			
16	Nitrate as NO <sub>3</sub>	mg/L	9.5	8.0	5.6	3.5	14.1	5.7			
17	Selenium as Se	mg/L	0.002	BLQ	0.002	BLQ	0.002	BLQ			
18	Sulphate as SO <sub>4</sub>	mg/L	360	155	80	37.6	228.7	85			
19	Total Hardness as CaCO <sub>3</sub>	mg/L	360	370	300	94	430	310			
20	Total Alkalinity as CaCO <sub>3</sub>	mg/L	243	217	314	85.3	368.6	330			
21	Anionic SurfaceActive Agent as MBAS	mg/L	BDL	BDL	BDL	BDL	BDL	BDL			
22	Sodium as Na	mg/L	12.8	10.1	20.4	30.1	27.4	21.3			
23	Conductivity @ 25°C	μS/cm	1887	1128	1591	330	2100	1284			



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### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

SI. No.	Parameter Name	UoM	Loc-1	Loc-2	Loc-3	Loc-4	Loc-5	Loc-6
PARA	METERS CONCERNING TOXIC	SUBSTAN	CES					
24	Cadmium as Cd	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
25	Cyanide as CN	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
26	Lead as Pb	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
27	Mercury as Hg	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
28	Total Arsenic as As	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
29	Total Chromium as Cr	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
30	Pesticide Residues	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ

Loc-1: Mine Site, Loc-2: Plant Site, Loc-3: Takkellapadu, Loc-4: Veerapuram, Loc-5: Pedagarlapadu,

BLQ-Below the Limit of Quantitation, BDL-Below the Detectable Limit, AB - Absent

# Ground Water Quality (Requirement Limits as per IS 10500-2012) Winter Season

No.   Parameter Name   UoM   Loc-1   Loc-2   Loc-3   Loc-4   Loc-5   Loc-6     MICROBIOLOGICAL ANALYSIS     Total coliforms   MPN   17   Absent   11   Absent   22   Absent     Total coliforms   Hazen   <1   5   2   2   <1   2     3   Odour     Agree   Agr		<u> </u>											
Total coliforms		Parameter Name	UoM	Loc-1	Loc-2	Loc-3	Loc-4	Loc-5	Loc-6				
CORGANOLEPTIC AND PHYSICAL PARAMETERS           2         Colour         Hazen         <1         5         2         <1         2           3         Odour          Agree	MICR	MICROBIOLOGICAL ANALYSIS											
Colour	1	Total coliforms	MPN	17	Absent	11	Absent	22	Absent				
3	ORGA												
4         Turbidity         NTU         0.4         5.2         4.9         1.9         0.4         4.5           5         pH @ 25°C          7.09         7.87         7.13         8.13         7.24         7.32           6         Taste          Agree	2	Colour	Hazen	<1	5	2	2	<1	2				
5         pH @ 25°C          7.09         7.87         7.13         8.13         7.24         7.32           6         Taste          Agree		Odour		Agree		Agree	Agree	Agree					
Taste		Turbidity	NTU	0.4	5.2	4.9	1.9	0.4	4.5				
Total Dissolved Solids		pH @ 25°C	-	7.09	7.87	7.13	8.13	7.24	7.32				
Parameters   Pa	6		-	Agree	Agree	Agree	Agree	Agree	Agree				
8         Boron as B         mg/L         BLQ         245         281           10         Chloride as Cl         mg/L         248         135         150         26         47         119           11         Copper as Cu         mg/L         BLQ         BLQ <td></td> <td>@180<sub>°</sub>C</td> <td>· ·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>666</td>		@180 <sub>°</sub> C	· ·						666				
9         Calcium Hardness (as CaCO3)         mg/L         321         260         250         66         245         281           10         Chloride as Cl         mg/L         248         135         150         26         47         119           11         Copper as Cu         mg/L         BLQ         0.5         0.5         0.6         0.3         0.7         0.5         10.5         13         Iron as Fe         mg/L         0.14         0.2         0.17         2.17         BDL         0.28           14         Magnesium Hardness (as CaCO3)         mg/L         133         82         71         36         128         87           15         Manganese as Mn         mg/L         BLQ         0.004         BLQ	GENE	ERAL PARAMETERS CONCERN	ING SUBST	ANCES UN	IDESIRABLI	E IN EXCE	SSIVE AM	OUNTS					
Total Hardness as CaCO <sub>3</sub>   mg/L   SLQ   BLQ   BLQ	8		mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ				
11         Copper as Cu         mg/L         BLQ         D.7         0.5           13         Iron as Fe         mg/L         0.14         0.2         0.17         2.17         BDL         0.28           14         Magnesium Hardness (as CaCO3)         mg/L         133         82         71         36         128         87           15         Manganese as Mn         mg/L         BLQ         0.004         BLQ         BDL         BDL         BDL <t< td=""><td>9</td><td></td><td>mg/L</td><td>321</td><td>260</td><td>250</td><td>66</td><td>245</td><td>281</td></t<>	9		mg/L	321	260	250	66	245	281				
The fluoride as F   mg/L   0.5   0.5   0.6   0.3   0.7   0.5	10	Chloride as Cl	mg/L	248	135	150		47	119				
12   Fluoride as F   mg/L   0.5   0.5   0.6   0.3   0.7   0.5     13   Iron as Fe   mg/L   0.14   0.2   0.17   2.17   BDL   0.28     14   Magnesium Hardness (as CaCO3)   mg/L   133   82   71   36   128   87     15   Manganese as Mn   mg/L   BLQ   0.004   BLQ   BLQ   BLQ   BLQ     16   Nitrate as NO₃   mg/L   16.0   6.2   5.9   3.28   10   11.2     17   Selenium as Se   mg/L   BLQ   BLQ   BLQ   BLQ   BLQ   BLQ     18   Sulphate as SO₄   mg/L   215   86   77.7   36   357   149     19   Total Hardness as CaCO₃   mg/L   454   342   321   102   372   367     20   Total Alkalinity as CaCO₃   mg/L   378   359   330   87   252   369     21   Anionic SurfaceActive Agent as MBAS   mg/L   BDL   BDL   BDL   BDL   BDL     22   Sodium as Na   mg/L   30.1   23   23   32   15   14     23   Conductivity @ 25°C   μS/cm   1845   1367   1632   313   1886   1243     PARAMETERS CONCERNING TOXIC SUBSTANCES     24   Cadmium as Cd   mg/L   BDL   BDL   BDL   BDL   BDL   BDL     25   Cyanide as CN   mg/L   BDL   BDL   BDL   BDL   BDL   BDL   BDL     26   Lead as Pb   mg/L   BLQ   B	11	Copper as Cu	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ				
14         Magnesium Hardness (as CaCO3)         mg/L         133         82         71         36         128         87           15         Manganese as Mn         mg/L         BLQ         0.004         BLQ         BDL	12		mg/L	0.5	0.5		0.3	0.7	0.5				
14         CaCO3)         IIIg/L         133         82         71         36         128         67           15         Manganese as Mn         mg/L         BLQ         0.004         BLQ	13	Iron as Fe	mg/L	0.14	0.2	0.17	2.17	BDL	0.28				
16         Nitrate as NO₃         mg/L         16.0         6.2         5.9         3.28         10         11.2           17         Selenium as Se         mg/L         BLQ         357         149         367         149         140         140         140         140         140         140         140 </td <td>14</td> <td></td> <td>mg/L</td> <td>133</td> <td>82</td> <td>71</td> <td>36</td> <td>128</td> <td>87</td>	14		mg/L	133	82	71	36	128	87				
16         Nitrate as NO₃         mg/L         16.0         6.2         5.9         3.28         10         11.2           17         Selenium as Se         mg/L         BLQ         367         149 </td <td>15</td> <td>Manganese as Mn</td> <td>mg/L</td> <td>BLQ</td> <td>0.004</td> <td>BLQ</td> <td>BLQ</td> <td>BLQ</td> <td>BLQ</td>	15	Manganese as Mn	mg/L	BLQ	0.004	BLQ	BLQ	BLQ	BLQ				
18         Sulphate as SO <sub>4</sub> mg/L         215         86         77.7         36         357         149           19         Total Hardness as CaCO <sub>3</sub> mg/L         454         342         321         102         372         367           20         Total Alkalinity as CaCO <sub>3</sub> mg/L         378         359         330         87         252         369           21         Anionic SurfaceActive Agent as MBAS         mg/L         BDL         BLQ         BLQ         BLQ         BLQ         BLQ         BLQ         BLQ         BLQ         BDL         BDL <td>16</td> <td></td> <td>mg/L</td> <td>16.0</td> <td>6.2</td> <td>5.9</td> <td>3.28</td> <td>10</td> <td>11.2</td>	16		mg/L	16.0	6.2	5.9	3.28	10	11.2				
19 Total Hardness as CaCO <sub>3</sub> mg/L 454 342 321 102 372 367 20 Total Alkalinity as CaCO <sub>3</sub> mg/L 378 359 330 87 252 369 21 Anionic SurfaceActive Agent as MBAS mg/L BDL BDL BDL BDL BDL BDL BDL BDL BDL BD	17	Selenium as Se	mg/L	BLQ	BLQ			BLQ	BLQ				
20         Total Alkalinity as CaCO₃         mg/L         378         359         330         87         252         369           21         Anionic SurfaceActive Agent as MBAS         mg/L         BDL         BLQ         BLQ         BLQ         BLQ         BLQ         BLQ         BLQ         BDL         <	18	Sulphate as SO <sub>4</sub>	mg/L	215	86	77.7	36	357	149				
21         Anionic SurfaceActive Agent as MBAS         mg/L         BDL         BLQ         BLQ         BLQ         BLQ         BDL	19	Total Hardness as CaCO <sub>3</sub>	mg/L	454	342	321	102		367				
21       as MBAS       mg/L       BDL	20	Total Alkalinity as CaCO <sub>3</sub>	mg/L	378	359	330	87	252	369				
23         Conductivity @ 25°C         μS/cm         1845         1367         1632         313         1886         1243           PARAMETERS CONCERNING TOXIC SUBSTANCES           24         Cadmium as Cd         mg/L         BLQ         BDL         BLQ	21	1	mg/L	BDL	BDL	BDL	BDL	BDL	BDL				
PARAMETERS CONCERNING TOXIC SUBSTANCES24Cadmium as Cdmg/LBLQBLQBLQBLQBLQ25Cyanide as CNmg/LBDLBDLBDLBDLBDLBDL26Lead as Pbmg/LBLQBLQBLQBLQBLQBLQ	22	Sodium as Na	mg/L	30.1	23	23	32	15	14				
PARAMETERS CONCERNING TOXIC SUBSTANCES24Cadmium as Cdmg/LBLQBLQBLQBLQBLQ25Cyanide as CNmg/LBDLBDLBDLBDLBDLBDL26Lead as Pbmg/LBLQBLQBLQBLQBLQBLQ					1367	1632	313	1886	1243				
25Cyanide as CNmg/LBDLBDLBDLBDLBDLBDLBDL26Lead as Pbmg/LBLQBLQBLQBLQBLQBLQ	PARA		SUBSTAN	CES									
26 Léad as Pb mg/L BLQ BLQ BLQ BLQ BLQ BLQ	24	Cadmium as Cd	mg/L	BLQ			BLQ	BLQ	BLQ				
27 Mercury as Hg mg/L BLQ BLQ BLQ BLQ BLQ BLQ		Lead as Pb							BLQ				
	27	Mercury as Hg	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ				



(Formerly Chettinad Cement Corporation Limited)

### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

SI. No.	Parameter Name	UoM	Loc-1	Loc-2	Loc-3	Loc-4	Loc-5	Loc-6
28	Total Arsenic as As	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
29	Total Chromium as Cr	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
30	Pesticide Residues	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ

Loc-1: Mine Site, Loc-2: Plant Site, Loc-3: Takkellapadu, Loc-4: Veerapuram, Loc-5: Pedagarlapadu,

BLQ-Below the Limit of Quantitation, BDL-Below the Detectable Limit, AB - Absent



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# Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

**Six Monthly Compliance Report - October 2019 to March 2020** 

### **ANNEXURE-5**

#### **Ambient Air Quality Monitoring Data**

## Oct'19-Dec'19

SI. No.	Parameter	PM 10	PM 2.5	SO2	NOx
1	Near Mines Office	50.0	16.8	11.7	16.5
2	Pedagarlapadu Village	41.2	16.6	11.1	15.1
3	Takkellapadu Village	50.0	20.7	10.6	14.1
4	Kachavaram Village	58.8	14.5	13.2	14.6
5	Veerapuram Village	54.2	24.9	9.6	12.3
1	NAAQMS Standards	100 μg/m <sup>3</sup>	60 μg/m <sup>3</sup>	80 μg/m <sup>3</sup>	80 μg/m <sup>3</sup>

### Jan'20-Mar'20

SI. No.	Parameter	PM 10	PM 2.5	SO2	NOx
1	Near Mines Office	55.8	23.5	9.6	15.6
2	Pedagarlapadu Village	45.8	20.7	10.5	16.2
3	Takkellapadu Village	46.5	19.2	9.1	14.9
4	Kachavaram Village	48.9	18.3	9.8	15.4
5	Veerapuram Village	44.2	21.2	9.6	15.1
١	NAAQMS Standards	100 μg/m <sup>3</sup>	60 μg/m <sup>3</sup>	80 μg/m <sup>3</sup>	80 μg/m <sup>3</sup>



(Formerly Chettinad Cement Corporation Limited)

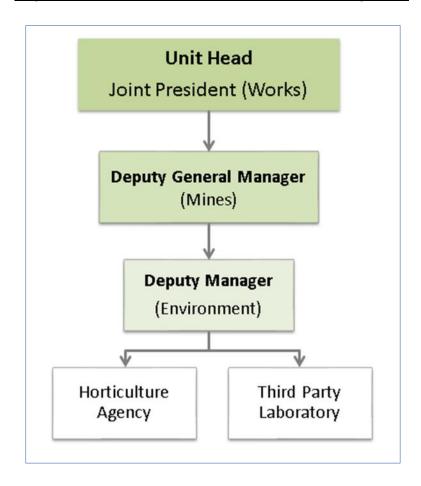
### Pedagarlapadu Limestone Mine - 5.0 MTPA

Pedagarlapadu & Kesanupalli (V), Dachepalli (M), Guntur District, Andhra Pradesh – 522437

## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

# ANNEXURE- 6 Organizational Structure for Environmental Management





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#### Pedagarlapadu Limestone Mine – 5.0 MTPA

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## Environmental Clearance F. N. J-11015/152/2013-IA.II (M) Dated 21st December, 2015

Six Monthly Compliance Report - October 2019 to March 2020

#### **ANNEXURE-7**

#### Newspaper clippings of EC approval

## **Chettinad Cement Corporation Limited Public Notice** This is to inform the public that the Ministry of Environment, Forest and Climate Change has accorded Environmental Clearance (EC) for our proposed Captive Limestone Mine with a capacity of 5.0 million tons of Limestone per annum at Pedagarlapadu and Kesanupalli Villages, Dachepalli Mandal, Guntur District, Andhra Pradesh under Environment Impact Assessment (EIA) Notification 2006 vide its Letter F.No.J-11015/152/2013-IA.II (M) dated 21.12.2015. The copy of the EC Letter is available at Andhra Pradesh Pollution Control Board and website of Ministry of Environment, Forest and Climate Change. Sd/-**Chief Operating Officer** Date: 24.12.2015 **Chettinad Cement Corporation Limited** 24.12.15. The Hindu Page NO. 7

