

REDDIPALAYAM LIMESTONE MINE
MOEF CLEARANCE NO-J-11015/337/2009-I A. II (M)
Dated 22.05.2013.

SPECIFIC CONDITIONS:

Sl. No	Conditions	Compliance status
(i)	Regular monitoring of vibration and its impact, if any, in the village shall be carried out and if at any stage any damage is felt on the village buildings / structure, necessary corrective measures should be taken in this regard immediately.	While blasting we are carrying out vibration monitoring study and the study reports are within the limit as per the Norms. If the vibration monitoring value is on higher side we will take necessary corrective measures to minimize the vibration.
(ii)	Ground water shall be monitored regularly and it shall be ensured that there is no depletion of ground water in the area. Necessary ground water recharging structures shall be built.	Suitable Conservation measures by way of rain water harvesting structures like Settling Tank of 100MX50MX2M on the eastern side of the mine are made to augment ground water resources. Consultation with Central Ground Water Board will also be done for implementing the conservation measures. Refer Photo No: 9 & 10.
(iii)	Exclusive road for transportation of limestone shall be laid as committed by the proponent.	Land purchase is in progress. As soon as the completion of land purchase we will lay Exclusive road for transportation of limestone from Mines to plant.
(iv)	The ambient air quality shall be monitored regularly. There shall be atleast one monitoring station in the habitation area. Necessary safe guard measures shall be taken to ensure that the air quality is within the permissible limit.	Ambient Air Quality monitoring stations are located in core and buffer zone for monitoring PM 2.5, PM10,RPM,SPM,SO2,NOX and CO. The location of the above stations is based on meteorological data topographical features and environmentally and ecologically sensitive considerations.
(v)	The project proponent shall obtain Consent to Establish and Consent to Operate from the TamilNadu state Pollution Control Board and effectively implement all the conditions stipulated therein.	We have obtained Consent to operate (Air & Water) from TamilNadu Pollution Control Board, Trichy vide Order No: 17658 & 21621 Dated: 12.08.2013 respectively and implanting all the stipulated conditions.
(vi)	Measures for prevention and control of soil erosion and management of silt shall be undertaken. The de - silted material from the river should not be left near the river to avoid it from going back into the river and should be properly disposed of at appropriate site.	We have constructed a settling pond 100MX50MX2M on the eastern side of the mine in which all mine and surface runoff water is being collected and allow to settle sediments and water free from sediments is being passed to one Periya Eri which is near to our Mines through channel . Refer Photo No:11.
(vii)	Trenches / garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of Check Dams and Gully Plugs shall be constructed across seasonal / perennial nallahs (if any) flowing through the ML area and silts arrested. De - Silting at regular intervals shall be carried out.	Garland drain for Dump :Garland drains around the periphery of dumps has been formed to arrest the silt and sediments from the OB dumps. Garland drains around the dumps Size of 1200 X 3 X2 meters respectively. De-silting of drains are being carried out regularly. Refer Photo No:8 c) Garland drain for Mines :Garland

		<p>drains have been formed in the Working mines of size 600 X 3 X 2 meter to take care of rainfall and discharge of surrounding area. Refer Photo No. 7. The mine floor has been maintained at the gradient of 1:20 to collect the water in the sump. The sump is properly designed keeping 50% safety margin over and above peak sudden rain fall so as to allow adequate retention period for proper settling of silt material. Free from silt water is being utilized for watering the mine area roads green belt development etc.</p> <p>Besides desilting of drains are being carried out regularly. Sedimentation pits with a dimension of 3 X 3 X 2 has been constructed at the corners of the garland drains & arrangement has been made for desilting at regular intervals.</p>
(viii)	The optimum charge for blasting shall be determined based on vibration study. Blasting operation 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.	Drilling and Blasting operation is not carried out regularly as the Mining operations are done with Rock Breaker which eliminates drilling & Blasting. However drilling & blasting is carried out only for making sumps for which we have covered the drill rod with wetted gunny bags during drilling in order to control the dust generation.
(ix)	Drills shall either be operated with dust extractors or equipped with water injection system.	Non Conventional method of Working is in practice hence Drills are eliminated. Occasionally we are doing conventional method of mining for hard patch and sump creation for which we are using Drills with water injection system.
(x)	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 also have efficient dust control arrangements. These should be properly maintained and arranged.	We are having our own water Tanker for dust suppression in mines on haul roads, and waste dumps area in order to have efficient dust control .
(xi)	ETP shall also be provided for the workshop and waste water generated during the mining operation.	Since we are using hired vehicle for Mining operation all the contractor is having their workshop out side the Mining area. We are having our own common ETP in a centralized area for our working mines.
(xii)	Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Ministry.	Fugitive dust emission from all the sources is being controlled and regularly monitored. Haul roads are adequately water sprayed through 10KLD water tanker arrangement. Both sides of haul road plantation is being maintained. Refer Photograph of Water spraying and green belt along haul roads. Refer Photo No: 11.
(xiii)	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	Suitable Conservation measures by way of rain water harvesting structures like Settling Tank of 100MX50MX2M on the eastern side of the mine are made to augment ground water resources. Consultation with Central

		Ground Water Board will also be done for implementing the conservation measures. Refer Photo No: 9 & 10.
(xiv)	Regular monitoring of ground water level and quality including Arsenic shall be carried out in and around the mine 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), 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 MOEF, Central Ground water Authority and 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.	We have constructed 6 Piezometer wells in the Mines for monitoring of Ground water levels .We have engaged a consultant for regular monitoring of ground water level, quality for four seasons in a year and the report is being sent regularly to Central Ground Water Board, Regional Director and MOEF.
(xv)	Mineralogical composition of the dust to assess the silica content in the dust particle and particle size analysis shall be carried out periodically and records maintained. Personnel exposure monitoring for dust shall also be carried out for the workers.	We are doing dust assessment survey for the workers, for the mineralogical composition, silica content and size of the particle and reports has been obtained from Lab.
(xvi)	Land use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action Plan for abatement and compensation for damage to agricultural land / common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Ministry within six months.	Land use pattern of the nearby villages has been studied and there was no damage to agricultural land/ common property land due to the impact on mining.
(xvii)	Need based assessment for the near by villages shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc., can form apart of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.	Need based assessment study for the nearby village has been carried out and company has provided separate budget for community development activities.
(xviii)	Occupational Health Cell shall be created at the company under the charge of an officer of adequate seniority who is qualified person in occupational health. Occupational Health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health	The Occupational health Surveillance program is being conducted for the workers periodically. An occupational health centre is headed by occupational health physician and run by our company. A dedicated dispensary with qualified Doctor in OHS and pharmacy is provided for occupational health surveillance

	effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required.	and monitoring. Personal Protective Equipment is provided for employees working in the mines. Adequate training on safety and health aspect have been provided in the vocational training centre.
(xix)	The company shall stress upon the preventive aspects of occupational health. Preplacement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Company is doing initial and periodical medical examination for the workers engaged in the project and also created awareness upon the preventive aspects of Occupational Health.
(xx)	Green belt all around the mine lease should be completed within 5 years of grant of environmental clearance. Green belt development and selection of species shall be of native species. The density of the trees should be around 2000 plant per ha. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of Year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.	Green belt development is being done as per MOEF Norms, all along the peripheral bunds ,haulage roads and dump slopes. So far peripheral green belt has been done with a consultation of local DFO/ Agriculture Department, covering an area of 11.00 ha by 32000 nos of saplings. Refer Photo No: 1 to 6.
(xxi)	Vehicular emissions shall be kept under control and regular monitored.	Measures have been taken for maintenance of Vehicles using in mining operation and transportation of mineral. Emission Test has been carried out periodically for all Vehicles in the Mines. Closed transportation with optimum quantity has been arranged.
(xxii)	Measures shall be taken for maintenance of vehicle used in mining operations and in transported of mineral within the mine lease to the stockyard. The mineral transportation within the mine lease shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded. The mineral transportation outside the mine lease shall be carried out through the tarpaulin covered trucks only and the vehicles carrying the mineral shall not be overloaded. There shall be no spillage of mineral enroute up to the delivery point.	We are taking suitable measures for maintenance of vehicle used in mining operations. Further for all the vehicle used for mineral transportation is being covered by Tarpaulin such way that the spillage and spreading of dust is avoided. All the vehicles are insisted to carry with limited load only..
(xxiii)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructures and facilities such as	Not applicable, Since we are engaging contact labour nearby village as they are already having infrastructures and facilities

	fuel for cooking, mobile toilets, STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	We are providing medical health care only.
(xxiv)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM ¹⁰ and NO _x in the ambient air within the impact zone, peak particle velocity at 300m 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) 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 MOEF, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	We have engaged a consultant for regular monitoring of Ambient Air Quality in core and buffer zone for monitoring PM 2.5, PM10,RPM,SPM,SO2,NOX and CO. and regular monitoring of ground water level, quality for four seasons in a year and the report is being sent regularly.
(xxv)	A Final Mine closure plan along with details of Corpus Fund shall be submitted to the MOEF 5 years in advance of final mine closure for approval.	Final closure plan will be prepared one year prior to the final closure with suitable financial provisions for mine closure. The same will be informed to the Ministry of Environment & Forests

GENERAL CONDITIONS:-

S.No	Conditions	Compliance status
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forest.	No change in Mining technology.Open cast Non conventional Mining.
ii.	No change in the calendar plan including excavation, quantum of limestone and waste should be made.	We are not exceeding the stipulated Quantity of limestone and waste as per the approved Mine plan/Scheme./ MOEF Norms.
iii.	At least four ambient air quality – monitoring stations should be established in the core zone as well as the buffer zone for RSPM, (Particulate matter with size less than 10 micron i.e., PM 10) and NO _x 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 State Pollution Control Board.	Ten Ambient Air Quality monitoring stations are located in core and buffer zone for monitoring PM 2.5, PM 10,RPM,SPM,SO2,NOX and CO. The location of the above stations is based on meteorological data topographical features and environmentally and ecologically sensitive considerations. First Half Yearly report of 2013-14 has been enclosed as Annexure – (A).

iv	Data on ambient air quality [RSPM, (Particulate matter with size less than 10 micron i.e., PM 10) and NOX] should be controlled regularly submitted to the Ministry including its Regional office at Bangalore and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Based on regular monitoring of Ambient Air Quality in core and buffer zone for PM 2.5, PM10,RPM,SPM,SO2,NOX and CO it is controlled and monitoring report is being sent regularly once in six months.
v.	Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump, trucks (loading & unloading) should be provided and properly maintained.	Fugitive dust emission from all the sources is being controlled and regularly monitored. Haul roads are adequately water sprayed through water spraying utilizing 10KLD water tanker arrangement. Both sides of haul road plantation is being maintained. Refer Photograph of Water spraying and green belt along haul roads. Refer Photo No :12.
vi	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc., shall be provided with ear plug / muffs.	Noise generation near mining operations areas are being measured periodically which is enclosed in the Compliance report. HEMM noise is reduced by means of effective periodical and Preventive maintenance system. Further we have provided personal protective equipments like ear plug / Muffs all workers engaged in HEMM operations.
vii.	Industrial waste water (workshop and waste from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December,1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Centralized effluent treatment facilities is provided for all the mines at Periyagalur Village .Oil, and grease traps allow to pass through settling tank to remove oil and grease from the waste water.
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.	Personal Protective Equipment is provided for employees working in the mines. Adequate training on safety and health aspect have been provided in the vocational training centre. The Occupational health Surveillance program is being conducted for the workers periodically. An occupational health centre is headed by occupational health physician and run by our company.
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.	Organizational set up of Environmental cell is functioning under the unit head. One competent Environmental Engineer is posted at Corporate office to monitor and coordinate the Environmental activity.
x	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.	As per the EMP plan fund provision for capital and recurring expenditure towards environmental measures are implemented. Separate account is being maintained for implementation of Environmental Management Plan measures is enclosed.
xi.	The project authorities shall inform to the Regional Office located at Bangalore regarding date of Financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The project finance is met with from the internal accruals and reserves.

xii.	The Regional Office of this Ministry located at Bangalore 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.	A set of filled in questionnaire is filled and sent to the MOEF Regional office, Bangalore.
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 MOEF, its Regional Office Bangalore, the respective Zonal office of CPCB 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 MOEF, Bangalore, the respective Zonal officer of CPCB and the state Pollution control Board. shall on their website	Half yearly compliance will be submitted along with the results of the monitored data.
xiv.	A copy of clearance letter will be earmarked to concern Panchayat / local NGO, if any from whom suggestion / representation has been received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.	The proposal has been informed to Local Panchayat/ NGO.
xv	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry center and Collectors office/ Tahsildars Office for 30 days.	The copy of clearance letter has been sent to District Authorities through State Pollution Control Board with in the stipulated period.
xvi	The project authorities should advertise at least in two local newspapers widely circulated around the project, 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 according environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment & Forests at http://envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of the Ministry located at Bangalore.	Advertised the Environmental clearance obtained from MOEF for Expansion of the Mining Project in the Dinayhanthi News paper Tamil Edition on 01.06.2013 and Indian Express English News paper dated 31.05.2013 and the copy has been sent to Regional Office of the Ministry located at Bangalore.
xvii.	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 state Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Office of the MOEF, Bagalore by e-mail.	Form –V statement for the financial year 2012-13 has been submitted to TNPCB, Trichy and the copy of the same has been forwarded to the Minstry of Environment and Forest, Bangalore.