



सत्यमेव जयते

File No.: 10743
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 23/05/2024



To,

KRISHNASAMY PALANIAPPAN
KRISHNASAMY PALANIAPPAN
No.2/63, Middle Street, EnamkasiReddiapatti village, Soolakkarai Post, Virudhunagar, Puliankulam,
VIRUDHUNAGAR, TAMIL NADU, 626003
rajadev119311@gmail.com

Subject: Grant of prior Environmental Clearance (EC) to the proposed Mining Project under the provisions of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/TN/MIN/464757/2024 dated 27/04/2024 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

Ref:1. Online Proposal No. SIA/TN/MIN/464757/2024, Dated:04/03/2024
2. Project proponent submitted EIA Report to SEIAA-TN on 08.03.2024

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24C0108TN5132147N
(ii) File No.	10743
(iii) Clearance Type	Mining EC Under 5 Ha
(iv) Category	B2
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals Limekankar Quarry of Thiru.K.Palaniappan, over an extent of 2.01.50Ha at S.F.Nos.161/1, 162/3, 164/4 & 165 of Puliankulam Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu
(vii) Name of Project	
(ix) Location of Project (District, State)	VIRUDHUNAGAR, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	No

3.In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent

amendments.

4.The above-mentioned proposal has been considered by SEIAA in the meeting held on 14/05/2024.The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.

5.The SEAC, based on information submitted viz: Form 1 (Part A, B) report etc., & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.

6.The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEAC hereby accords Environment Clearance for the instant proposal to Thiru.KRISHNASAMY PALANIAPPAN under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (2)

7.The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.

8.The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

9.The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

10.Salient features of the proposal are as follows:

Sl. No	Salient Features of the Proposal	
1.	Name of the Owner/Firm	Thiru.K.Palaniappan, S/o. Krishnasamy, No.2/63, Middle Street, EnamkasiReddiapatti Village, Soolakkarai Post, Virudhunagar
2.	Type of quarrying	Limekankar
3.	S.F Nos. of the quarry site	161/1, 162/3, 164/4 & 165
4.	Village in which situated	Puliankulam
5.	Taluk in which situated	Virudhunagar
6.	District in which situated	Virudhunagar
7.	Extent of quarry (in ha.)	2.01.50Ha
8.	Latitude & Longitude of all corners of the quarry site	09°31'04.3389"N to 09°31'09.3939"N 77°55'42.5058"E to 77°55'48.0939"E
9.	Topo Sheet No.	58 G/14
10.	Type of mining	Opencast Semi Mechanized Mining
11.	Period of Current Mine Plan	5 years
12.	Production (Quantity in m ³)	5781.40 m ³ of Limekankar Recovery (@80%)
13.	Depth of Quarrying	1.5m below ground level
14.	Depth of water table	20m Below Ground Level
15.	Man Power requirement per day:	6 Nos
16.	Water requirement:	2.0.KLD
	I. Drinking Water & Domestic Purpose	--
	II. Dust suppression	0.5 KLD
	III. Green belt	1.0 KLD
		0.5 KLD
17.	Power requirement	TNEB
18.	Precise area communication approved by the Principal Secretary to Government, Industries Department with date	Letter No. 4713465/MMC.2/2023-1 dated: 17.08.2023

19.	Mining Plan approved by the Regional Controller of Mines, Indian Bureau of Mines, Chennai with date	Rc.No.5537/MM7/2022, dt: 30.01.2024
20.	Assistant Director, Department of Geology and Mining 500m cluster letter	Rc.No.KV1/268/2022, dated: 13.02.2024
21.	VAO certificate regarding structures within 300m radius	Letter dated:02.02.2024
22.	Project Cost (excluding EMP cost)	Rs. 21,68,000/-
23.	EMP cost (in Rs. Lakh)	Capital – Rs. 11.48 Lakhs Recurring - Rs. 34.75 Lakhs
24.	CER cost (in Rs. Lakh)	Rs. 2.0 Lakhs

Validity:

This Environmental Clearance is accorded for the quantity of 7226.75m³ ROM which includes 5781.40 m³ of Limekankar Recovery (@80%) upto 1.5m below ground level and the annual peak production shall not exceed 1445.35m³ ROM which includes 1156.28 m³ of Limekankar Recovery (@80%).

The Environmental Clearance issued is valid as per the approved mine plan period and as per MoEF&CC's notification S.O.1533(E) dated 14.09.2006 and S.O. 1807(E) dated 12.04.2022.

11.General Instructions:

(i)The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.

(ii)The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

(iii)The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(iv)Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(v)Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

The Regional Office of this SEIAA 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.

(vi)Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

12. This issue with an approval of the Competent Authority. For information on deliberations, refer to the minutes of SEAC and SEIAA available in the PARIVESH Portal.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief Secretary to Government, Environment, Climate Change and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Industries, Investment Promotion & Commerce Department, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32.
7. The District Collector, Virudhunagar District.
8. Assistant Director of Geology and Mines, Virudhunagar.

Specific EC Conditions for (Mining Of Minerals)**1. Seiaa Specific Conditions:**

S. No	EC Conditions
1.1	<p>1. Keeping in view of MoEF&CC's notification S.O.1533(E) dated.14.09.2006 and S.O. 1807(E) dated 12.04.2022, this Environmental Clearance is valid as per the approved mine plan period.</p> <p>2. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every 5 years and also during the mine plan period, till the project life so as to review the EC conditions and to ensure that they have all been adhered to and implemented.</p> <p>3. The topsoil/side burden/weathered rock should be used only for the purpose of progressive mine closure. Further, non-recoverable reserves i.e., mined waste should be used for filling of mines & restoration of mining sites.</p> <p>4. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life.</p> <p>5. There should be regular monitoring of air quality, water quality, ground water level and noise quality and reports regarding the same should be submitted to TNPCB, SEIAA & IRO of MoEF&CC once in every 6 months.</p> <p>6. The proponent shall strictly adhere to the mining plan and half yearly and annual returns shall be submitted to the Director of Geology and Mining Department with copy marked to TNPCB, SEIAA & IRO of MoEF&CC.</p> <p>7. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC.</p> <p>8. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP and as per the amount committed and approved in EC for EMP. Status of progressive mine closure and green belt implementation should be included in the half yearly compliance report submitted to TNPCB, SEIAA & IRO of MoEF&CC.</p> <p>9. As per the OM vide F. No. IA3-22/1/2022-IA-III [E- 172624] Dated: 14.06.2022, the Project Proponents are directed to submit the six-monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.</p> <p>10. The amount allocated for EMP should be kept in a separate account and both the capital and recurring expenditures should be done year wise for the works identified, approved and as committed. The work & expenditure made under EMP should be elaborated in the bi-annual compliance report submitted and also should be brought to the notice of concerned authorities during inspections.</p> <p>11. The project proponent shall store and dump the waste soil generated within the earmarked area of the project site and the same shall be utilized for mine closure and bank filling as per the approved mining plan</p>

2. Seiaa Standard Conditions:

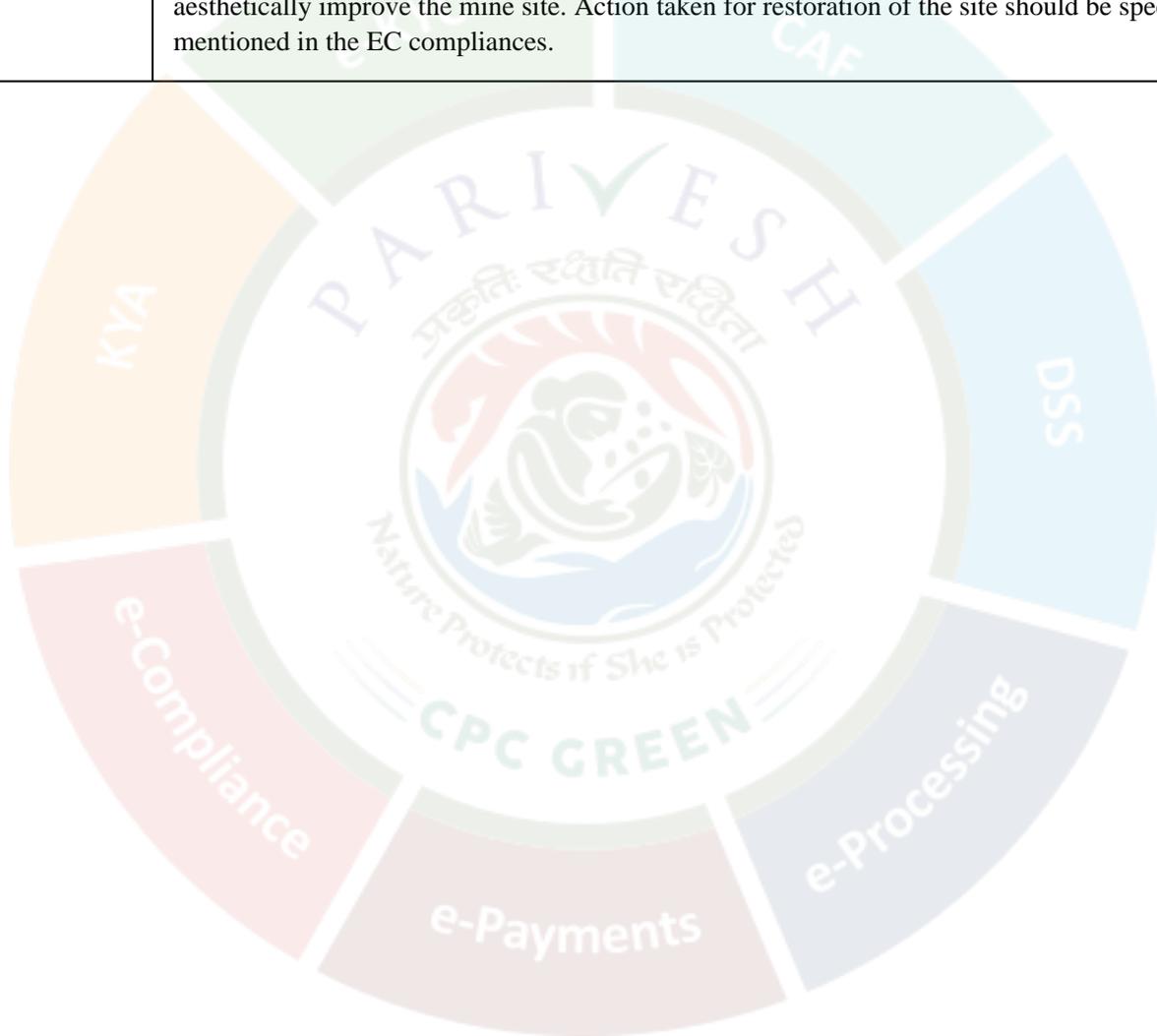
S. No	EC Conditions
2.1	<p>a) EC Compliance:</p> <ol style="list-style-type: none"> 1. The Environmental Clearance is accorded based on the assurance from the project proponent that there will be full and effective implementation of all the undertakings given in the Application Form, Pre-feasibility Report, mitigation measures as assured in the Environmental Impact Assessment/ Environment Management Plan and the mining features including Progressive Mine Closure Plan as submitted with the application. 2. All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full. 3. The proponent shall submit Compliance Reports on the status of compliance of the stipulated EC conditions including results of monitored data. It shall be sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment Authority (SEIAA). 4. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986. <p>b) Applicable Regulatory Frameworks:</p> <ol style="list-style-type: none"> 5. The project proponent shall strictly adhere to the provisions of Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006, Wildlife Protection Act, 1972, Forest Conservation Act, 1980, Biodiversity Conservation Act, 2016, the Biological Diversity Act, 2002, Biological diversity Rules, 2004 & TN Forest Act, 1882 and Rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter <p>c) Safe mining Practices:</p> <ol style="list-style-type: none"> 6. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission of slope stability study conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc and ensure strict compliance and implementation of bench wise recommendations/action plans as recommended in the scientific slope stability study. 7. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically sensitive and archeologically important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on specific local conditions. <p>d) Water Environment – Protection and mitigation measures:</p> <ol style="list-style-type: none"> 8. The proponent shall ensure that the activity does not disturb the water bodies, neighboring open wells, bore wells and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area nor effect the water quality and water quantity in the water sources. 9. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report. 10. Quality of water discharged from the quarry should be monitored regularly as per the norms of State Pollution Control Board and included in the Compliance Report. 11. Rain Water Harvesting facility should be installed as per the prevailing provisions of TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project. 12. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. 13. Garland drains and silt traps are to be provided in the slopes around the core area to

S. No	EC Conditions
	<p>channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.</p> <p>e) Air Environment – Protection and mitigation measures:</p> <p>14. The activity should not result in CO₂ release and temperature rise and add to micro climate alternations.</p> <p>15. The proponent shall ensure that Monitoring is carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads.</p> <p>f) Soil Environment – Protection and mitigation measures:</p> <p>16. The proponent shall ensure that the operations neither result in loss of soil biological properties and nutrients nor deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community and result in eutrophication of soil and water. Further, the activities should not disturb the soil properties and seed and plant growth. Soil amendments as required to be carried out, to improve soil health.</p> <p>17. Bio remediation using microorganisms should be carried out to restore the soil environment to enable carbon sequestration.</p> <p>18. The proponent shall ensure that the mine restoration is done using mycorrhizal VAM, vermicomposting, Biofertilizers and the topsoil is protected and used in planting activities, site restoration and establishment of green belt in the area to ensure soil health and biodiversity conservation.</p> <p>19. The top soil shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geotextile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.</p> <p>20. Activities should not result in invasion of site by exotic and alien plant and animal species and disturb the native biodiversity and soil micro flora and fauna.</p> <p>g) Noise Environment – Protection and mitigation measures:</p> <p>21. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines. The activity of the proponent should not effect the biological clock of the villages resulting in stress, sleeping disorders affecting health.</p> <p>h) Biodiversity - Protection and mitigation measures:</p> <p>22. The proponent should ensure that there is no disturbance to the agriculture plantations, social forestry plantations, waste lands, forests, sanctuary or national parks. There should be no impact on the land, water, soil and biological environment and other natural resources due to the mining activities.</p> <p>23. No trees in the area should be removed and all the trees numbered and protected. In case trees fall within the proposed quarry site the trees may be transplanted in the Greenbelt zone. The proponent shall ensure that the activities in no way result in disturbance to forest and trees in vicinity. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem. The proponent shall ensure that the activities do not disturb the resident and migratory birds. The proponent shall ensure that the activities do not disturb the vegetation and wildlife in the adjoining reserve forests and areas around. Also, the activities should not disturb the agro biodiversity, agro farms, green lands and grazing fields of all types. Actions to be taken to promote agroforestry, mixed plants to support biodiversity conservation in the mine restoration effort.</p>

S. No	EC Conditions
	<p>24. The proponent shall ensure that all mitigation measures listed in the EIA/EMP are taken to protect the biodiversity and natural resources in the area.</p> <p>i) Climate Change:</p> <p>25. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.</p> <p>26. Operations should not result in GHG releases and extra power consumption leading to Climate Change.</p> <p>27. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.</p> <p>28. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.</p> <p>29. Mining activity should be flood proof with designs and the drainage, pumping techniques shall ensure climate-proofing and socio-economic wellbeing in the area and vicinity.</p> <p>j) Reserve Forests & Protected Areas:</p> <p>30. The activities should provide nature based support and solutions for forest protection and wildlife conservation.</p> <p>31. The project activities should neither result in forest fires, encroachments nor create forest fragmentation and disruption of forest corridors and alter the geodiversity and geological heritage of the area.</p> <p>32. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands.</p> <p>33. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation.</p> <p>34. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behavior of wildlife and flora.</p> <p>35. The activities should support and recognize the rights and roles of indigenous people and local communities and also support sustainable development.</p> <p>36. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds.</p> <p>37. The project activities should not result in changes in forest structure, habitats and genetic diversity within forests.</p> <p>k) Green Belt Development:</p> <p>38. The proponent shall ensure that in the green belt development more indigenous trees species as suggested in Appendix of SEAC Minutes are planted and that the area is restored and rehabilitated with native trees .</p> <p>l) Workers and their protection:</p> <p>39. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc.</p> <p>40. The proponent has to provide insurance protection to the workers and the working hours and wages shall be implemented/enforced as per the Mines Act, 1952 in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.</p> <p>m) Transportation:</p> <p>41. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a bypass road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of</p>

S. No	EC Conditions
	<p>roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.</p> <p>42. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.</p> <p>n) Storage of wastes</p> <p>43. The project proponent shall store/dump the waste generated within the earmarked area of the project site for mine closure as per the approved mining plan.</p> <p>o) CER/EMP:</p> <p>44. The CER should be fully Implemented and fact reflected in the Half-yearly compliance report.</p> <p>45. The EMP shall also be implemented in consultation with local self-government institutions & Govt. departments as indicated in SEAC meeting.</p> <p>p) Directions for Reclamation of mine sites:</p> <p>46. The mining closure plan should strictly adhere to appropriate soil rehabilitation measures to ensure ecological stability of the area. Reclamation/Restoration of the mine site should ensure that the Geotechnical, physical, chemical properties are sustainable that the soil structure composition is buildup, during the process of restoration. The proponent shall ensure that the mine closure plan is followed as per the mining plan and the mine restoration should be done with native species, and site restored to near original status. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services.</p> <p>47. A crucial factor for success of reclamation site is to select sustainable species to enable develop a self-sustaining eco system. Species selected should easily establish, grow rapidly, and possess good crown and preferably be native species. Species to be planted in the boundary of project site should be un palatable for cattle's/ goats and should have proven capacity to add leaf-litter to soil and decompose. The species planted should be adaptable to the site conditions. Should be preferably pioneer species, deciduous in nature to allow maximum leaf-litter, have deep root system, fix atmospheric nitrogen and improve soil productivity. Species selected should have the ability to tolerate altered pit and toxicity of and site. They should be capable of meeting requirement of local people in regard to fuel fodder and should be able to attract bird, bees and butterflies. The species should be planted in mixed association.</p> <p>48. Top soil with a mix of beneficial microbes (Bacteria/Fungi) to be used for reclamation of mine spoils. AM Fungi (Arbuscular mycorrhizal fungi), plant growth promoting Rhizo Bacteria and nitrogen fixing bacteria to be utilized. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site. Top soil is most important for successful rehabilitation of mined sites. Topsoil contains majority of seeds and plant propagation, soil microorganism, Organic matter and plant nutrients. Wherever possible the topsoil should be immediately used in the area of the for land form reconstruction, to pre mining conditions.</p> <p>49. Over burdens may be analyzed and tested for soil characteristics and used in the site for revegetation. Wherever possible seeds, rhizome, bulbs, etc., of pioneering spices should be collected, preserved and used in restoring the site. Native grasses seeds may be used as colonizers and soil binders, to prevent erosion and allow diverse self- sustaining plant.</p>

S. No	EC Conditions
	<p>50. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoil should have necessary physical, chemical, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broadcasted after topsoil and treated overburden are spread. Alkaline soils, acidic soils, Saline soils should be suitably treated/amended using green manure, mulches, farmyard manure to increase organic carbon. The efforts should be taken to landscape and use the land post mining. The EMP and mine closure plan should provide adequate budget for re-establishing the site to pre-mining conditions. Effective steps should be taken for utilization of overburden. Mine waste to be used for backfilling, reclamation, restoration, and rehabilitation of the terrain without affecting the drainage and water regimes. The rate of rehabilitation should be similar to rate of mining. Efforts should be taken to aesthetically improve the mine site. Action taken for restoration of the site should be specifically mentioned in the EC compliances.</p>



SEAC SPECIFIC CONDITION:

- 1) Tree plantation & fencing and installation of garland drainage with siltation tank around the mine lease area shall be completed before execution of the mine lease.
- 2) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 3) The PP shall register promptly through online in the Shram Suvidha Portal which is the official portal of Ministry of Labour & Employment, Govt of India to obtain Labour Identification Number (LIN) before obtaining the CTO from the TNPCB.
- 4) For ensuring the safe and systematic mining operations, the PP shall send the 'Notice of Opening' indicating the appointment of First Class/Second Class Mine Manager for managing the mining operations and the proposed usage of HEMM shall be sent to the Director of Mines Safety, Chennai Region of the Mine under the provisions of MMR 1961 at least 30 days before the commencement of the mining operation immediately after the execution of lease with district authority.
- 5) **The PP shall not carry out the drilling and blasting operations as committed in the Mining Plan and however, the PP shall adopt the blast-free technologies including rock breakers, ripper-dozers, etc., for carrying out the rock breakage such that the eco-friendly mining operation is ensured during the life period of the mining.**
- 6) **The PP shall ensure that the loaded trucks are covered with a tarpaulin cover to avoid the spillage & dust pollution during the transportation through the village roads.**
- 7) The PP shall install the Environmental Management Cell headed by the statutory Mines Manager of the concerned mine under violation category and the cell shall include a dedicated full-time Environmental Engineer exclusively to look into the effective implementation of Environmental Management Plan besides the reviewing the compliance reports with the regulatory authorities.
- 8) The PP shall make necessary arrangements for rain water harvesting plan in the proposed quarry site.
- 9) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for

total excavation i.e. quantum of ROM ore, and top soil if any etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Quarry license or any other name.

- 10) The purpose of the green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 11) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper escapement as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 12) The proponent shall undertake the activities of restoration, reclamation and rehabilitation of lands affected by the quarrying operations in a phased manner and shall complete this work before the conclusion of such operations and the relinquishment of the quarrying activities as assured in the Environmental Management Plan & the Mine Closure Plan approved by the Regional Controller of Mines, Indian Bureau of Mines, Chennai.
- 13) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to the Integrated Regional Office (IRO), MoEF & CC, Chennai / Regional office of CPCB, Chennai. The same shall be intimated to the local habitants through village panchayat.
- 14) The PP shall annually carry out an Occupational Health Survey (OHS) in accordance with the guidelines & period of examination laid in the DGMS (Tech.) (S&T) Circular No. 01 of 2011, on OHS of the persons working in mines prone to generate the airborne dust, under Section 9A of Mines Act, 1952 by actively involving State Government

officials and Non-Government Organizations (NGO) working in the Occupational Health Survey (Medical Examination). A copy of such annual compliance certificate shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

- 15) The project proponent shall ensure that the provisions of the MMDR Act, 1957, and the MCDR 2017 are complied by carrying out the mining operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
- 16) The quarrying activity shall be stopped if the entire quantity of ROM ore indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining), District Environmental Engineer (TNPCB), and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
- 17) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
- 18) All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter as well as in the Precise area communication letter issued by concerned District Collector should be strictly followed.
- 19) That the grant of this E.C. is issued from the environmental angle only and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
- 20) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- 21) As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020, the proponent shall adhere to the EMP as committed.

22) As proposed by the Project Proponent the CER shall be **Rs. 2 Lakhs** and the amount shall be spent for the activities as committed below and the amount shall be spent before the end of one year from the date of issue of EC.

SEAC STANDARD CONDITION:

1. The PP shall inform send the 'Notice of Opening' of the quarry to the Director of Mines Safety, Chennai Region before obtaining the CTO from the TNPCB.
2. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
3. The proponent shall appoint the statutory competent persons relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961, as amended from time to time.
4. Within a period one month from the execution of lease deed, the PP shall ensure that the persons deployed in the quarry including all the contractual employees/truck drivers shall undergo initial/periodical training in the DGMS approved GVTC situated in Trichy / Salem / Hosur.
5. The PP shall construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
6. Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.
7. The proponent shall install the 'S3 (or) G2' type of fencing all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
8. The Proponent shall submit a conceptual 'Slope Stability Action Plan' incorporating the benches & accessible haul road approved by the concerned AD (Mines) for the proposed quarry to the DEE/TNPCB at the time of obtaining the CTO.

9. The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination in the DGMS approved OHS Clinics/Hospitals as per the DGMS Circular No. 01 of 2011 before they are engaged in mining activities.
10. The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are provided with adequate PPEs before engaged in mining operations.
11. The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
12. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.
13. The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
14. The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
15. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.
16. Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
17. The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
18. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
19. The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be

chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

20. Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
21. **Noise and Vibration Related:** (i) Appropriate 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, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
22. The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
23. The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
24. If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
25. The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
26. The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.

27. The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.
28. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
29. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for “Silt Management” and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
30. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
31. The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
32. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
33. The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
34. The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
35. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental

Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.

36. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
37. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
38. That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
39. As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEFCC, the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.
40. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
41. As per the MoEF&CC Office Memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere to the EMP as committed.

AFFIDAVIT FURNISHED BY THE PROPONENT

The Proponent has furnished affidavit in stamp paper attested by the Notary stating that

I, K.Palaniappan, S/o.Krishnasam residing at No. 2/63, Middle Street, EnamkasiReddiapatti Village, Soolakkarai Post, Virudhunagar Taluk – 626003 virudhunagar District do hereby solemnly declare and sincerely affirm that, I have applied for getting Environment Clearance to SEIAA, Tamil Nadu for Limekankar Quarry at S.F.Nos.161/1, 162/3, 164/4 & 165 over an

area of 2.01.5 Ha in Puliankulam Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu.,

1. I swear to state and confirm that within 10km area of the quarry site, we have applied for environmental clearance, the following are not situated
 - a. **Wildlife Sanctuary:** Protected areas notified under the wild life (Protection) Act, 1972 (NBWL)- Nil within 10 Km radius.
 - b. Reserved / Protected Forests -Nil within 10 km radius.
 - c. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and control of Pollution) Act 1974 - Nil
 - d. Interstate boundaries and international boundaries within 10km radius from the boundary of the proposed site- Nil
2. I will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities.

CER Activity	Project cost (Rs)	Revised CER
Enamreddiapatti Government High School		
<ul style="list-style-type: none"> • Tree plantation (50nos) • Providing SINTEX TANK • Setting up New Cycle Stand Floor • Cleaning & maintenance of toilet during the lease period. • Library track and book facility 	Rs. 21,68,000/-	Rs2,00,000/-

3. Details of quarry within 500m radius from the applied area:

Sl.No	Name of the Quarry Owner	Name of the Village S.F.No. & Details	Extent in Hectare	Distance from this proposed quarry
1. Abandoned Quarries				
1	Thiru.K.Palaniappan, S/o.Krishnasamy No.: 2/63, Middle Street, EnamkasiReddiapatti Village,	Puliankulam 167/1, 170/4A, 170/4B & 170/4C Lease Period :	1.09.0 G.O.No.(D) 162 dated 05.09.2018	50mts

	Soolakkarai Post - 626003, Virudhunagar Taluk & District.	07.12.2018 to 06.12.2023		
2. Existing Quarries				
Nil				
3. Proposed Quarries				
1	Thiru.K.Palaniappan, S/o.Krishnasamy No.: 2/63, Middle Street, EnamkasiReddiapatti Village, Soolakkarai Post - 626003, Virudhunagar Taluk & District.	Puliankulam 161/1, 162/3, 164/4 & 165	2.01.50	-

The total lease within the 500m radius (Existing + proposed) works out to 2.0150 ha including this lease area.

4. ENVIRONMENTAL POLLUTION CONTROL COST ESTIMATE:-

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	Compaction, gradation and drainage on both sides for Haulage Road	Rental Dozer & drainage construction on haul road @ Rs. 10,000/- per hectare; and yearly maintenance @ Rs. 10,000/- per hectare	0.20	0.10
	Fixed Water Sprinkling	Fixed Sprinkler Installation and New	1.00	0.25

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
Air Environment	Arrangements + Water sprinkling by own water tankers	Water Tanker Cost for Capital; and Water Sprinkling (thrice a day) Cost for recurring		
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0.00	0.00
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	Dust extractor @ Rs. 25,000/- per unit deployed as capital & @ Rs. 2500 per unit recurring cost for maintenance	0.00	0.00
	No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0.00	0.05
	Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0.00	0.10
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governors @ Rs. 5000/- per Tipper/Dumper deployed - 2 Units	0.10	0.00
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0.00	0.05

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	Provision for 2 labours @ Rs.10,000/labour (Contractual) per Hectare	-	0.40
	Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	0.50	0.20
Sub-Total			1.80	1.15
Noise Environment	Source of noise will be during operation of transportation vehicles, HEMM for this proper maintenance will be done at regular intervals.	Provision made in Operating Cost	-	-
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	-	-
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	-	-
	It will be ensured that all transportation	Provision made in Operating Cost	-	-

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	vehicles carry a fitness certificate.			
	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	-	-
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	-	-
	Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.	Blowing Whistle by Mining Mate / Blaster / Compentent Person	-	-
	Provision for Portable blaster shed	Installation of Portable blasting shelter	0.00	0.00
	NONEL Blasting will be practiced to control Ground	Rs. 30/- per 6 Tonnes of Blasted Material	-	0.00

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	vibration and fly rocks			
Sub-Total			0.00	0.00
Waste Management	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency	0.15	0.10
		Installation of dust bins	0.05	0.02
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost		
Sub-Total			0.20	0.12
Mine Closure	1. Progressive Closure Activity - Surface Runoff managment	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	0.20	0.05
	2. Progressive Closure Activity Barbed Wire Fencing to quarry area will be provisioned.	Per Hectare fencing Cost @ Rs. 2,00,000/- with Maintenance of Rs 10,000/- per annum	4.03	0.10
	Additionally 500 trees will planted in	trenches, soil amendments,	1.00	0.15

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	the backfilled area as compensatory measure	transplantation of saplings @ 200 per plant (capital) for plantation inside the lease area and @ 30 per plant maintenance (recurring)		
	3. Progressive Closure Activity Green belt development - 500 trees per one hectare - Proposal for 1000 Trees - (500 Inside Lease Area & 500 Outside Lease Area)	Site clearance, preparation of land, digging of pits / trenches, soil amendments, transplantation of saplings @ 200 per plant (capital) for plantation inside the lease area and @ 30 per plant maintenance (recurring)	1.50	0.15
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	0.98	-
	4. Implementation of Final Mine Closure Activity as per	Few activities already covered as progressive closure activities as greenbelt development,	0.13*	-

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	Approved Mining Plan on Last Year	wire fencing, garland drain.		
		*For Final Closure Activities 15% of the proposed closure cost will be spent during the final mine closure stage - Last Year		
	5. Contribution towards Green Fund. As per TNMMCR 1959, Rule 35 A	The Contribution towards Green Funds @ 10% of peak production Seigniorage fee are indicated as part of EMP Budge and not necessarily implemented in the Project Site	0.20*	0.05
* Not included in Capital cost				
Sub-Total			7.73	0.60
Implementation of EC, Mining Plan & DGMS Condition	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	Fixed Display Board at the Quarry Entrance as permanent structure mentioning Environmental Conditions	0.10	0.01
	Air, Water, Noise and Soil Quality Sampling every 6	Submission of 2 Half Yearly Compliance - Lab	0.00	0.50

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	Months for Compliance Report of EC Conditions	Monitoring Report as per CPCB norms		
	Workers will be provided with Personal Protective Equipment's	Provision of PPE @ Rs. 4000/- per employee with recurring based on wear and tear (say, @ Rs. 1000/- per employee)	0.24	0.06
	Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0.00	0.06
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0.00	0.08
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	0.10	0.02
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles /HEMMs. Flaggers will be deployed for traffic management	Parking area with shelter and flags @ Rs. 50,000/- per hectare project and Rs. 10,000/- as maintenance cost	1.01	0.10

Activities	Mitigation Measure	Provision for Implementation	Capital In Lakhs	Recurring In Lakhs
	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	0.30	0.05
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1 st Class / 2 nd Class / Mine Foreman) under regulation 34 / 34 (6) of MMR, 1961 and Mining Mate under regulation 116 of MMR,1961 @ 40,000/- for Manager & @ 25,000/- for Foreman / Mate	0.00	0.00
Sub-Total			1.75	0.88
Start Rating	Monitoring of Granite Quarrying Operation by Anna University	Star Rating @ Rs. 1,00,000/- per Year will be deposited in the First Year	NA	NA
TOTAL			11.48	2.75

Towards EMP measures, Rs.11.48 Lakhs is allocated under capital cost. Besides, Rs. 2.75 Lakhs / annum of pollution control measures, environmental monitoring etc., will be met from revenue.

Recurring cost for 5 years @ 5% escalation

Year	1	2	3	4	5	6	7	8	9	10	Total

Rs in Lakhs	2.75	2.89	3.03	3.18	3.34	3.51	3.69	3.87	4.06	4.2	34.59
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5. There will not be hindrance or disturbance to the people living no enrooted/ nearby our quarry site while transporting the mineral and due to quarrying activities.
6. There is no approved habitation permanent structures, temple etc within 300m radius from the periphery of our quarry.
7. I swear that afforestation will be carried out during the course of quarrying operation and maintained.
8. The required insurance will be taken in the name of the laborers working in our quarry site.
9. The existing road from the main road to quarry will be maintained and utilized for material transportation.
10. I will not engage any child labor in our quarry site and I aware that engaging child labor is punishable under the law.
11. All types of safety / protective equipment will be provided to all the laborers working in our quarry.
12. I will erect fencing around the quarry lease before commencement of mining activities.
13. I will carry out systematic and scientific mining employing qualified mines manager, blaster.
14. I will inform DGMS before commencement of mining activities.
15. I ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of our knowledge.

DETAILS OF QUARRIES LOCATED WITHIN 500M RADIUS FROM THE PROPOSED QUARRY:

The Project Proponent has submitted a copy of the letter obtained from the Deputy Director, Department of Geology and Mining, **Virudhunagar** District in his letter Rc.No.KV1/268/2022, dated: 14.11.2023 has stated that the details of other quarries within a radius 500m from the boundary of the proposed quarry site as follows:

Sl.No	Name of the Quarry Owner	Name of the Village S.F.No. & Details	Extent in Hectare	Distance from this proposed quarry
1. Abandoned Quarries				
1	Thiru.K.Palaniappan, S/o.Krishnasamy No.: 2/63, Middle Street, EnamkasiReddiapatti Village, Soolakkarai Post - 626003, Virudhunagar Taluk & District.	Puliankulam 167/1, 170/4A, 170/4B & 170/4C Lease Period : 07.12.2018 to 06.12.2023	1.09.0 G.O.No.(D) 162 dated 05.09.2018	50mts
2. Existing Quarries				
Nil				
3. Proposed Quarries				
1	Thiru.K.Palaniappan, S/o.Krishnasamy No.: 2/63, Middle Street, EnamkasiReddiapatti Village, Soolakkarai Post - 626003, Virudhunagar Taluk & District.	Puliankulam 161/1, 162/3, 164/4 & 165	2.01.50	-