



सत्यमेव जयते

File No.: 9276  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Issued by the State Environment Impact Assessment  
Authority(SEIAA), TAMIL NADU)

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Dated 25/09/2024



To,

Shanmugam P  
PALANISAMY SHANMUGAM  
Yadhavar Street Iravadhanallur, Madurai Dist. , Madurai, MADURAI, TAMIL NADU, , 625009  
palanichamybluemetals2007@gmail.com

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

**Sir/Madam,**

This is in reference to your application submitted to SEIAA vide proposal number SIA/TN/MIN/454393/2023 dated 05/12/2023 for grant of prior Environmental Clearance (EC) to the project Existing Rough Stone & Gravel quarry lease over an extent of 4.68.5 Ha at S.F.No.51/1A, 51/1B, 51/3A, 51/3B1, 51/3B2, 51/3B3, 51/3C, 51/4A1, 51/4A2, 51/4B1, 51/4B2, 51/5A, 74/1A1, 74/1A2, 74/1A3, 74/1A4, 74/1A5, 74/2, 75/4B, 75/5, 75/6, 75/8A, 75/8B, 75/9, 75/10A, 75/10B, 75/11, 75/12, 75/13A & 75/13B of Chettipillayarnatham Village, Thirumangalam Taluk, Madurai District, Tamil Nadu by Thiru. P. Shanmugam under the provision of the EIA Notification 2006-and as amended thereof.

Ref:

1. Earlier, EC was issued vide SEIAA Lr. No.SEIAA-TN/F.No.2534/EC/1(a)/1782/2014 dated: 27.03.2015
2. Your application submitted Terms of Reference dated: 25.05.2022.
3. ToR issued vide Lr No. SEIAA-TN/F.No.9276/SEAC/ToR-1209/2022 Dated:14.07.2022.
4. Online Proposal No. SIA/TN/MIN/454393/2023, Dt. 05/12/2023.
5. Project proponent submitted Final EIA Report to SEIAA-TN on 14.12.2023.
6. Public Hearing conducted on 22.08.2023.
7. Minutes of the 444<sup>th</sup> meeting of SEAC held on 09.02.2023.
8. Minutes of the 702<sup>nd</sup> authority meeting held on 12.03.2024.
9. Project Proponent's reply dated on 23.07.2024
10. Minutes of the 493<sup>rd</sup> Meeting of SEAC held on 30.08.2024.
11. Minutes of the 754<sup>th</sup> authority meeting held on 16.09.2024

2. The particulars of the proposal are as below :

(i) EC Identification No.

EC23B0108TN5977423N

<b>(ii) File No.</b>	9276
<b>(iii) Clearance Type</b>	Fresh EC
<b>(iv) Category</b>	B1
<b>(v) Project/Activity Included Schedule No.</b>	1(a) Mining of minerals P. Shanmugam, Rough Stone and gravel Quarry Extent: 4.68.5ha S.F.Nos.51/1A, 51/1B, 51/3A, 51/3B1, 51/3B2, 51/3B3, 51/3C, 51/4A1, 51/4A2, 51/4B1, 51/4B2, 51/5A, 74/1A1, 74/1A2, 74/1A3, 74/1A4, 74/1A5, 74/2, 75/4B, 75/5, 75/6, 75/8A, 75/8B, 75/9, 75/10A, 75/10B, 75/11, 75/12, 75/13A&75/13B of Chettipillayarnatham Village, Thirumangalam Taluk, Madurai District.
<b>(vii) Name of Project</b>	
<b>(ix) Location of Project (District, State)</b>	MADURAI, TAMIL NADU
<b>(x) Issuing Authority</b>	SEIAA
<b>(xii) Applicability of General Conditions</b>	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A, B Part C & EIA/EMP Reports were submitted to the SEIAA 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 16/09/2024. 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 SEIAA, in its meeting held on 16/09/2024, based on information submitted viz: Form 1 (Part A, B and C), EIA/EMP 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 Mr. Shanmugam P 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:**

S.N	Particulars	Details furnished
1.	Name of the Owner/Firm	P. Shanmugam, S/o. Palanisamy, Yadhavar Street, Iravadhanallur, Madurai District – 625 009
2.	Type of quarrying	Rough Stone and Gravel Quarry

3.	S.F No. of the quarry site	51/1A, 51/1B, 51/3A, 51/3B1, 51/3B2, 51/3B3, 51/3C, 51/4A1, 51/4A2, 51/4B1, 51/4B2, 51/5A, 74/1A1, 74/1A2, 74/1A3, 74/1A4, 74/1A5, 74/2, 75/4B, 75/5, 75/6, 75/8A, 75/8B, 75/9, 75/10A, 75/10B, 75/11, 75/12, 75/13A & 75/13B
4.	Village in which situated	Chettipillayarnatham
5.	Taluk in which situated	Thirumangalam
6.	District in which situated	Madurai
7.	Extent of quarry (in ha.)	4.68.5ha
8.	Latitude & Longitude of all corners of the quarry site	09°47'24.75"N to 09°47'32.87"N 77°57'43.99"E to 77°57'54.50"E
9.	Topo Sheet No.	58 - G/13
10.	Type of mining	Open cast Mechanized method
11.	Period of current mine plan	5 Year
12.	Production (Quantity in m <sup>3</sup> )	<b>6,47,327m<sup>3</sup> of Rough Stone and 12,938 m<sup>3</sup> of Gravel and the annual peak production shall not exceed 1,57,087m<sup>3</sup> of Rough Stone and 10,168 m<sup>3</sup> of Gravel</b>
13.	Depth of mining	<b>42m BGL</b>
14.	Depth of water table	73m-68m
15.	Man Power requirement	75nos
16.	Water requirement: 1. Domestic & Flushing 2. Dust suppression 3. Green Belt	<b>3.0KLD</b> 0.8KLD 1.5KLD 0.7KLD
17.	Power requirement	5,81,968 Liters of HSD
18.	Precise area communication approved by the Deputy Director, Department of Geology and Mining	Roc.No.890/Mines/2021, Dated: 21.02.2022
19.	Mining Plan approved by Deputy Director, Department of Geology and Mining.	Roc.No. 890/Mines/2021 Dated: 16.03.2022
20.	500m cluster letter issued by the Deputy Director, Dept. of Geology and Mining.	Roc.No.890/Mines/2021, Dated: 17.03.2022
21.	VAO Certificate Regarding Structures within 300m Radius	Letter Furnished
22.	Project Cost (excluding EMP)	RS. 97.44 Lakhs
23.	EMP cost	<b>Total EMP Cost – Rs. 216 Lakhs</b> Capital Cost: Rs.44,41,950/- Recurring Cost: RS. 31,00,220/- per annum
24.	Tor Issued	Lr No.SEIAA-TN/F.No.10407/SEAC/ToR-1616/2023 Dated:06.11.2023
25.	Public Hearing	22.08.2023
26.	EIA Report Submitted	14.12.2023
27.	CER Cost	Rs.5.0 Lakhs
28.	<b>Validity:</b> <b>This Environmental Clearance is accorded for the quantity of 6,47,327m<sup>3</sup> of Rough Stone and 12,938 m<sup>3</sup> of Gravel up to the ultimate depth of 42m BGL and the annual peak production should not exceed 1,57,087m<sup>3</sup> of Rough Stone and 10,168 m<sup>3</sup> of Gravel as per the approved mining plan.</b> <b>The Environmental Clearance issued is valid as per the approved mine plan period and as per MoEF&amp;CC's notification S.O.1533(E) dated.14.09.2006 and S.O. 1807(E) dated 12.04.2022</b>	

#### 11. General Instructions:

1. 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.
  2. 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.
  3. 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.
  4. 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.
  5. 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.
  6. 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.
  7. 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.

**Copy To**

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1<sup>st</sup>& 2<sup>nd</sup> 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 Chair Person, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
7. The District Collector, Madurai District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. Assistant Director, Department of Geology & Mining, Madurai District
10. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
11. File Copy

**Annexure 1**

**Specific EC Conditions for (Mining Of Minerals)**

**1. Seiaa Specific Conditions:**

S. No	EC Conditions
1.1	<p>After detailed discussions, the Authority taking into account the recommendations of SEAC and also the safety aspects and to ensure sustainable, scientific and systematic mining, decided to grant Environmental Clearance for the production quantity of 6,47,327m<sup>3</sup> of Rough Stone and 12,938 m<sup>3</sup> of Gravel and the annual peak production shall not exceed 1,57,087m<sup>3</sup> of Rough Stone and 10,168 m<sup>3</sup> of Gravel and restricting the maximum depth of mining upto 42m BGL for a period of five years. This is also subject to the conditions imposed by SEAC, normal conditions stipulated by MOEF&amp;CC in addition to the following conditions and the conditions in Annexure 'A' of this minutes.</p> <ol style="list-style-type: none"> <li>1. All the issues raised in Public Hearing should be covered in EMP &amp; proper budget shall be allotted for every activity. The revised EMP to be submitted to SEIAA &amp; TNPCB before obtaining CTO from the Board.</li> <li>2. The nature of vegetation, flora, fauna, shrubs should not be disturbed by the project activity.</li> <li>3. The agriculture &amp; horticulture pattern and livelihood of the local community should not be disturbed.</li> <li>4. The biodiversity around the proposed site should not be disturbed by the project activity.</li> <li>5. The nature of the water bodies including river, odai, tanks, ponds, and streams should not be disturbed by the project activity.</li> <li>6. The nature of the subsurface water flow in the surroundings should not be disturbed by the project activity.</li> <li>7. Keeping in view of MoEF&amp;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.</li> <li>8. 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 &amp; restoration of mining sites.</li> <li>9. 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.</li> <li>10. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&amp;CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life.</li> <li>11. 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 &amp; IRO of MoEF&amp;CC once in every 6 months.</li> <li>12. 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 &amp; IRO of MoEF&amp;CC.</li> <li>13. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA &amp; IRO of MoEF&amp;CC.</li> <li>14. 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 &amp; IRO of MoEF&amp;CC.</li> <li>15. 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.</li> <li>16. 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 &amp; 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</li> </ol>

S. No	EC Conditions
	during inspections

**2. Seiaa Standard Conditions:**

S. No	EC Conditions
2.1	<p><b>a) EC Compliance:</b></p> <p>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.</p> <p>2.All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full.</p> <p>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).</p> <p>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> <p><b>b) Applicable Regulatory Frameworks:</b></p> <p>5.The project proponent shall strictly adhere to the provisions of Water (Prevention &amp; Control of Pollution) Act, 1974, the Air (Prevention &amp; Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral Conservation &amp;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 &amp; 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> <p><b>c) Safe mining Practices:</b></p> <p>6.The AD/DD, Dept. of Geology &amp; Mining shall ensure operation of the proposed quarry after the submission of slope stability study conducted through the reputed research &amp; 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.</p> <p>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> <p><b>d) Water Environment – Protection and mitigation measures:</b></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>11.Rain Water Harvesting facility should be installed as per the prevailing provisions of</p>

S. No	EC Conditions
	<p>TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.</p> <p>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.</p> <p>13.Garland drains and silt traps are to be provided in the slopes around the core area to 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><b>e) Air Environment – Protection and mitigation measures:</b></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><b>f) Soil Environment – Protection and mitigation measures:</b></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, vermincomposting, 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><b>g) Noise Environment – Protection and mitigation measures:</b></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><b>h) Biodiversity - Protection and mitigation measures:</b></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</p>

S. No	EC Conditions
	<p>biodiversity, the flora &amp; 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> <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><b>i) Climate Change:</b></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><b>j) Reserve Forests &amp; Protected Areas:</b></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 behaviour of wildlife and flora.</p> <p>35.The activities should support and recognise 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><b>k) Green Belt Development:</b></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><b>l) Workers and their protection:</b></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><b>m) Transportation:</b></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</p>

S. No	EC Conditions
	<p>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 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 centres.</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><b>n) Storage of wastes</b></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><b>o) CER/EMP:</b></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 &amp; Govt. departments as indicated in SEAC meeting.</p> <p><b>p) Directions for Reclamation of mine sites:</b></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</p>

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	<p>revegetation. Wherever possible seeds, rhizome, bulbs, etc., of pioneering species 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 communities to establish. Grasses may offer superior tolerance to drought, and climatic stresses.</p> <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>



### **CONDITIONS IMPOSED BY SEAC:**

- 1) The prior Environmental Clearance granted for this mining project shall be valid subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC.
- 2) 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.
- 3) Tree plantation & fencing and installation of garland drainage with siltation tank around the mine lease area shall be completed before obtaining the CTO from the TNPCB.
- 4) 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.**
- 5) The PP shall abide by the mitigation and restoration measures provided in the Environment Management plan prepared for the project life.
- 6) The PP shall abide by all the conditions as stipulated in accordance with the provisions of MMR 1961 and DGMS Circular No.7 of 1997 while carrying out the controlled blasting operations through a statutorily competent persons appointed by him.
- 7) For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall **during the 2<sup>nd</sup> year or when the depth exceeds 30m whichever is earlier**, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation
- 8) The proponent shall carryout suppression of dust generated due to transport vehicles by continuous water spraying using tankers.
- 9) The PP shall fulfil the requirements of the provisions of Mines Act 1952, the regulations of MMR 1961 and the DGMS Circulars, the Environment Act & Rules, 1986, Explosives Act 1884, Explosive rules 1983 and other laws, orders **pertaining to the geometry of quarry and its operation & mine closure activities** without any deviation.

- 10) As accepted by the Project Proponent the CER cost is **Rs. 5 Lakhs** and the amount shall be remitted for the Panchayat Union Middle School, Rayapalayam, Thirumangalam Union, Madurai District for the activities as committed before obtaining CTO from TNPCB.

Sl. No.	Description	CER Cost INR
1.	Renovation of Existing Toilets and maintenance	Rs. 5,00,000/-
2.	Providing Environmental related books to school library	
3.	Carrying out plantation in the school ground around 100 Nos	
4.	Construction of play ground	
5.	Providing water purifier	

#### Annexure I

- 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.

**Part-A: Conditions to be Complied before commencing mining operations:-**

1. **The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that**
  - I. **The project has been accorded Environmental Clearance.**
  - II. **Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.**
  - III. **Environmental Clearance may also be seen on the website of the SEIAA.**
  - IV. **The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.**
2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. **A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ 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 proponent and also kept at the site, for the general public to see.**
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.

10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying should be as per approved mining plan.
15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
20. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, GoI on 16.11.2009.
21. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
  - i. Roads shall be graded to mitigate the dust emission.
  - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
22. The following measures are to be implemented to reduce Noise Pollution
  - i. Proper and regular maintenance of vehicles and other equipment
  - ii. Limiting time exposure of workers to excessive noise.
  - iii. The workers employed shall be provided with protection equipment and earmuffs etc.

- iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
  - v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.
23. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
24. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
25. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
26. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
27. The following measures are to be adopted to control erosion of dumps:-
- i. Retention/ toe walls shall be provided at the foot of the dumps.
  - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
28. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous& other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCCB.
29. Concealing the factual data or 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.
30. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
31. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.

32. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
33. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
34. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
35. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
36. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
37. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
38. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
39. Bunds to be provided at the boundary of the project site.
40. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
41. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
42. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
43. The Project Proponent shall provide solar lighting system to the nearby villages.

44. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
45. Safety equipments to be provided to all the employees.
46. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai
47. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
48. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
49. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
50. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
51. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
54. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
55. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
56. All the commitment made by the project proponent in the proposal shall be strictly followed.
57. 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.

**Part B: General Conditions:**

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. 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 loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should 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.
12. 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. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.

13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. 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 and Forests and its Regional Office located at Chennai.
16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining tpe Environmental Clearance.
20. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
21. The above conditions will be enforced inter-alia, under the provisions of the 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 and Biological diversity Rules, 2004 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.

22. Any other conditions stipulated by other Statutory/Government authorities shall be complied.
23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
24. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.

#### **AFFIDAVIT FURNISHED BY THE PROPONENT**

I, **Thiru. P. Shanmugam**, S/o. Palanisamy, Yadavar Street, Iravathanallur, Madurai District – 625 009, Tamil Nadu, solemnly declare and sincerely affirm that:

I have applied for getting Environment Clearance to SEIAA, Tamil Nadu State for quarrying of **Rough Stone and Gravel Quarry over an extent of 4.68.5ha** of Patta Land in **S.F. No: 51/1A, 51/1B, 51/3A, 51/3B1,51/3B2, 51/3B3, 51/3C, 51/4A1, 51/4A2, 51/4B1, 51/4B2, 51/5A, 74/1A1,74/1A2, 74/1A3, 74/1A4, 74/1A5, 74/2, 75/4B, 75/5, 75/6, 75/8A, 75/8B, 75/9, 75/10A, 75/10B, 75/11, 75/12, 75/13A & 75/13B, Chettipillayarnatham Village, Thirumangalam Taluk, Madurai District, Tamil Nadu State.**

1. I swear to state and confirm that within 10km area of the quarry site, I have applied for environment clearance, none of the following is situated:
  - a. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and Control of Pollution) Act, 1974,
  - b. Eco-Sensitive areas as notified.
  - c. Interstate Boundary
2. I will spend the amount of Rs. 5 Lakhs towards Corporate Environment Responsibility for Panchayat Union Middle School and the details are as follows:

**CER:**

**Panchayat Union Middle School, Rayapalayam Village, Madurai District.**

Activities as follows:

Sl. No.	Description	Cost breakup
1	Renovation of Existing Toilets and maintenance	<b>Rs.5,00,000/-</b>
2	Providing Environmental related books to school library	
3	Carrying out plantation in the school ground around 100 Nos	
4	Construction of play ground	
5	Providing water purifier	
<b>Total</b>		<b>Rs.5,00,000/-</b>

3. The total area of following quarries located within 500m radius from the periphery of my quarry site details as shown below:

(i) **Existing Quarries:**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.	Collector's Proceedings No & Date	Lease Period
1.	Shanmugam.P	Chettipillaiya rnatham	79/4D, 79/7A, etc.,	1.73.0	Roc.No.533/2 018, Dated: 28.02.2019	06.03.2019 - 05.03.2024

(ii) **Abandoned / Expired Quarries**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.	Collector's Proceedings No & Date	Lease Period
1.	Kandhavelu.P	Chettipillaiya rnatham	51/2A, 51/2B, 51/2C, etc.,	4.41.0	Roc.No.320/ 2011, Dated: 03.07.2015	28.07.2015 - 27.07.2020
2.	Gopala krishnan.R	Chettipillaiya rnatham	82/2A, 82/2B, 82/3, 82/4A & 82/5	2.49.5	Roc.No.404/ 2014, Dated: 13.11.2015	05.12.2015 - 04.12.2020

(iii) **Present Proposed Quarries:**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.
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1.	Kandhavelu.P	Chettipillaiyarnatham	28/1, 29/1, 29/2, 30/1A1, etc.,	4.98.0
2.	Rajmohan	Chettipillaiyarnatham	81/2A1 & 81/2A2	1.65.5
3.	Shanmugam.P	Chettipillaiyarnatham	51/1A etc.,	4.68.5

4. There will not be hindrance or disturbance to the people living during quarrying activities and transportation of the mineral.
5. There is no approved habitation within 300m radius from the periphery of my quarry.
6. I swear that afforestation will be carried out during the course of quarrying operation and maintained.
7. The required insurance will be taken in the name of the laborers working in my quarry site.
8. The existing road from the main road to quarry is in good condition and the same is being maintained and utilized for Transportation of Rough stone.
9. I will not engage any child labor in my quarry site and I aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided to all the laborers working in my quarry.
11. No permanent structures, temples etc., are located within 500m radius from the periphery of my quarry.

### REVISED EMP BUDGET

Mitigation Measure	Provision for Implementation	Capital	Recurring
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	46850	46850
Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	Fixed Sprinkler Installation and New Water Tanker Cost for Capital; and Water Sprinkling (thrice a day) Cost for recurring	800000	50000
Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0	5000

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 – 17 Units	425000	42500
No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0	5000
Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0	10000
Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governors @ Rs. 5000/- per Tipper/Dumper deployed - 9 Units	45000	2250
Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0	5000
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	93700
Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	50000	20000
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	0	0
Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	0	0
Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	0	0
It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	0	0
Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	0	0
Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	0	0
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	0	0
Provision for Portable blaster shed	Installation of Portable blasting shelter	50000	2000

NONEL Blasting will be practiced to control Ground vibration and fly rocks	Rs. 30/- per 6 Tonnes of Blasted Material	0	1683050
Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency	5000	20000
	Installation of dust bins	5000	2000
Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost	0	0
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	10000	1000
Air, Water, Noise and Soil Quality Sampling every 6 Months for Compliance Report of EC Conditions	Submission of 2 Half Yearly Compliance - Lab Monitoring Report as per CPCB norms	0	50000
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) - 75 Employees	300000	75000
Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0	75000
First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0	9370
Slope stability action plan	Slope stability action plan in the end of fourth year plan period	200000	0
Mine will have safety precaution signages, boards.	Provision for signages and boards made	10000	2000
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	234250	10000
Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	30000	5000
Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1st Class / 2nd 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	780000

Construction of Green mesh along with wire fencing around the lease area	Per Hectare greenmesh cost @ Rs. 50,000/- with Maintenance of Rs 20,000/- per annum	150000	20000
1. Progressive Closure Activity - Surface Runoff management	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	46850	5000
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	937000	10000
3. Progressive Closure Activity Green belt development - 500 trees per one hectare - Proposal for 2350 Trees - (1080 Inside Lease Area & 1270 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)	216000	324000
	Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	381000	38100
4. Implementation of Final Mine Closure Activity as per Approved Mining Plan on Last Year	Few activities already covered as progressive closure activities as greenbelt development, 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	#96600	0
5. Contribution towards Green Fund. As per TNMMCR 1959, Rule 35 A	The Contribution towards Green Funds @ 10% of Seigniorage fee are indicated as part of EMP Budge and not necessarily implemented in the Project Site	#5825943	0
As per MoEF &CC OM 22-65/2017-IA.III Dated 25.02.2021	Detailed Description in following slides and Budget allocation is included as per MoEF & CC OM	500000	0
<b>TOTAL</b>		<b>4441950</b>	<b>3100220</b>

**EMP BUDGET SUMMARY BREAKUP YEAR WISE**

Year Wise Break Up	
1st Year	Rs 75,42,170

2nd Year	Rs 32,55,231
3rd Year	Rs 34,17,993
4th Year	Rs 35,88,892
5th Year	Rs 38,64,937
<b>Total</b>	<b>216 Lakhs</b>

I ensure to do all the social and Environment commitment as mentioned in the scheme of mining to the best of my knowledge.

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

The Project Proponent has submitted a copy of the letter obtained from Deputy Director, Dept. of Geology and Mining, Madurai District in his letter Roc.No.890/Mines/2021, Dated: 17.03.2022 has stated that the details of other quarries within a radius 500m from the boundary of the proposed quarry site as follows:

(i) **Existing Quarries:**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.	Collector's Proceedings No & Date	Lease Period
1.	Shanmugam.P	Chettipillaiya rnatham	79/4D, 79/7A, etc.,	1.73.0	Roc.No.533/2018, Dated: 28.02.2019	06.03.2019 - 05.03.2024

(ii) **Abandoned / Expired Quarries:**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.	Collector's Proceedings No & Date	Lease Period
1.	Kandhavelu.P	Chettipillaiya rnatham	51/2A, 51/2B, 51/2C, etc.,	4.41.0	Roc.No.320/2011, Dated: 03.07.2015	28.07.2015 - 27.07.2020
2.	Gopala krishnan.R	Chettipillaiya rnatham	82/2A, 82/2B, 82/3,	2.49.5	Roc.No.404/2014, Dated: 13.11.2015	05.12.2015 - 04.12.2020

			82/4A & 82/5			
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(iii) **Present Proposed Quarries:**

S. No.	Name of the Owner	Village	S.F. Nos.	Extent in Hect.
1.	Kandhavelu.P	Chettipillaiyarnatham	28/1, 29/1, 29/2, 30/1A1, etc.,	4.98.0
2.	Rajmohan	Chettipillaiyarnatham	81/2A1 & 81/2A2	1.65.5
3.	Shanmugam.P	Chettipillaiyarnatham	51/1A etc.,	4.68.5

