

ENVIRONMENTAL
CLEARANCE



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), TAMIL NADU)

To,

The Managing Director
M/S. TAMIL NADU MINERALS LIMITED
M/s. Tamil Nadu Minerals Limited (Government of Tamil Nadu
undertaking) 31 Kamarajar Salai, Chepauk,
Chennai, Tamil Nadu - 600005 -600005

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the SEIAA vide proposal number
SIA/TN/MIN/424193/2023 dated 05 Jul 2023. The particulars of the environmental
clearance granted to the project are as below.

1. EC Identification No.	EC23B001TN126051
2. File No.	8731
3. Project Type	New
4. Category	B
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	Vadaagaram Silica Sand Mine
7. Name of Company/Organization	M/S. TAMIL NADU MINERALS LIMITED
8. Location of Project	TAMIL NADU
9. TOR Date	N/A

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

Date: 08/09/2023

(e-signed)
Thiru.Deepak S.Bilgi
Member Secretary
SEIAA - (TAMIL NADU)

*Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH.Please quote identification
number in all future correspondence.*

This is a computer generated cover page.

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,
and Virtuous Environmental Single-Window Hub)





THIRU.DEEPAK S. BILGI, I.F.S.
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY-TAMILNADU

3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai - 600 015.

Phone No. 044-24359973

Fax No. 044-24359975

ENVIRONMENTAL CLEARANCE

Lr. No.SEIAA-TN/F.No.8731/1(a)/EC.No: 5919/2023 dated:21.08.2023

Sir/Madam,

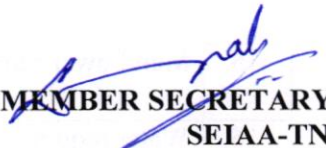
Sub: SEIAA-TN – Proposed Silica Sand quarry lease over an extent of 3.73.0Ha at S.F.Nos. 73(Part) of Vadaagaram Village, Marakkanam Taluk, Villupuram District, Tamil Nadu by M/s. Tamil Nadu Minerals Limited - TAMIN –under Category “B2” of Item 1(a) “Mining of Minerals Projects” of the Schedule to the EIA Notification, 2006 issue of Environmental Clearance – Regarding.

Ref:

1. Online Proposal No. SIA/TN/MIN/424193/2023, dated:31.03.2023.
2. Your Application for Environmental Clearance dated: 31.03.2023
3. Minutes of the 389th meeting of SEAC held on 06.07.2023.
4. Minutes of the 639th meeting of Authority held on 18.07.2023.
5. Minutes of the 647th meeting of SEIAA held on 21.08.2023.

Details of Minor Mineral Activity:-

This has reference to your application first and second cited. The proposal is for obtaining Environmental Clearance for mining/quarrying of minor minerals based on the particulars furnished in your application as shown below


MEMBER SECRETARY
SEIAA-TN

Sl. No.	Details of the Proposal	
1.	Name of the Owner/Firm	M/s. Tamil Nadu Minerals Limited, No.31, Kamarajar Salai, "TWAD HOUSE" Chepauk, Post Box No.2961, Chennai-600 005.
2.	Type of quarrying	Silica Sand Mine
3.	S.F No. of the quarry site	73(Part)
4.	Village in which situated	Vadagaram
5.	Taluk in which situated	Marakkanam
6.	District in which situated	Villupuram
7.	Extent of quarry (in ha.)	3.73.0Ha (Government land)
8.	Latitude & Longitude of all corners of the quarry site	12°10'27.50"N to 12°10'37.19"N 79°55'12.59"E to 79°55'26.63"E
9.	Topo Sheet No.	57 P/16
10.	Type of mining	Opencast Semi-Mechanized Mining Method
11.	Period of current mine plan	5 years
12.	Production (Quantity in Ts)	As per mining plan, the lease period is 10 years. The mining plan is for the period of Five years & production should not exceed 39,986 Ts of Silica Sand
13.	Depth of mining	4m BGL
14.	Depth of water table	6.50m BGL
15.	Man Power requirement per day:	26 Employees
16.	Water requirement:	1.5 KLD


MEMBER SECRETARY
SEIAA-TN

	1. Drinking Water (in KLD) 2. Dust suppression (in KLD) 3. Greenbelt (in KLD)	
17.	Power requirement	TNEB -
18.	Precise area communication approved by the Industries department with date	Letter.No.6113/MMC.2/2019-1 dt: 26.02.2021
19.	Mining Plan approved by Assistant Director of Geology and Mining.	Rc.No.3082/MM7/2019, dt: 07.07.2021
20.	Assistant Director(i/c) mines 500m Cluster Letter	Rc.No.B/G&M/73/2021 dt: 07.06.2021
21.	VAO Certificate Regarding Structures within 300m Radius	Letter Dated: 12.05.2021
22.	Project Cost (excluding EMP)	Rs. 1,02,02,000/-
23.	EMP cost	Capital cost – Rs. 29,54,600/- Recurring cost/annum – Rs. 12,14,310 /- Total EMP: Rs. 41,68,910/-
24.	CER	Rs. 3,00,000 /- as accepted by the PP
25.	Validity: This Environmental Clearance is accorded for the quantity of 39,986 Ts of Silica Sand up to the depth of 4m BGL and the annual peak production should not exceed 9363 Ts of Silica Sand. 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 12.01.2022	

AFFIDAVIT FURNHSED BY THE PROPONENT

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

I, Dr.E.Ganesan, represent m/s . Tamil Nadu Minerals Limited, as Deputy Manager (ML) and authorized signatory of the project solemnly declarer and sincerely affirm that:


**MEMBER SECRETARY
SEIAA-TN**

I have applied for prior Environment Clearance to SEIAA, Tamil Nadu for Vadaagaram Silica Sand mine, over the extent of 3.73.0Ha of Government land in S.F.Nos. 73(Part) of Vadaagaram Village, Marakkanam Taluk, Villupuram District.

I swear to state and confirm that within 10km area of the mine site. I have applied for Environment Clearance none of the following is situated.

- Protected areas notified under the Wildlife (Protected) Act,1972.
- Critically polluted areas as identified by CPCB constituted under Water (Prevention and Control of Pollution) Act,1974.
- Eco-Sensitive Area as notified.
- Interstate boundaries and international boundaries within 5km radius from the boundary of the proposed site.

2) I will complete the following Corporate Environment Responsibility (CER) activities as per MoEF&CC OM dt.30.09.2020 and 20.10.2020 After commencement of the Mining activities.

Si.No	Beneficiary Village and Location	CER Activities	Amount Allocated in Rs.
1	Vadaagaram Village Government School	Sanitation facilities to a Govt.School	Rs.1,38,000/-

3) The quarries are located within 500m radius from the periphery of our proposed lease area.

i) Existing Quarries:

S.No	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
1	M/s.Mohan Breweries and Distilleries Limited,PIPTIC Industrial Estate, Metupalayam, Puducherry-9	Silica Sand	Marakkanam & Vadaagaram	32/3A1, 33/13A, 41/8, 41/9, 41/10, 41/11B, 41/12A, 41/19& 41/20	1.10.0 0.19.5 1.09.0 0.16.0 0.06.0 0.08.0 0.04.0 0.24.0 0.13.0 0.04.0 1.14.0	05.12.2008 To 04.12.2028	Non-Operation from September 2010 to till date.


MEMBER SECRETARY
SEIAA-TN

ii) Proposed quarries:

S.No	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
1	M/s. Tamil Nadu Minerals Limited, No.31, Kamarajar Salai, Chepauk, Chennai-05.	Silica Sand	Marakkanam & Vadaagaram	73(Part)	3.73.0	-	-

iii) Abandoned Quarries:

S.No	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
----Nil----							

4. No quarries/mines are located within 500m radius from Periphery of my mine.
5. There will not be any hindrance or disturbance to the people living on enroute / nearby my mine site while transporting the mined out material and due to mining / mining activities.
6. No approved habitations as per Rules 36(1) of Tamil Nadu Minor Mineral Concession Rules, 1959 located within 500 meters radius from the periphery of my mine.
7. I swear that afforestation will be carried out during the course of mining operation and maintained.
8. The required insurance will be taken in the name of the labourers working in my mine site.
9. I will not engage any child labour in my mine site.
10. All type of Safety / protective equipments will be provided to all the labourers working in my mine.
11. No approved permanent structures, temples etc are located within 500m radius from the periphery of my mine.
12. The mining activity will be carried out only after obtaining environmental clearance.

I ensure to do all the Social and Environmental commitment as mentioned in the Mining Plan to the best of my knowledge.


MEMBER SECRETARY
SEIAA-TN

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

The Project Proponent has submitted a copy of the letter obtained from the Assistant Director(i/c), Villupuram District in his letter Rc.No.B/G&M/73/2021dt: 07.06.2021has 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 lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
1	M/s.Mohan Breweries and Distilleries Limited,PIPTIC Industrial Estate, Metupalayam, Puducherry-9	Silica Sand	Marakkanam & Vadaagaram	32/3A1, 33/13A, 41/8, 41/9, 41/10, 41/11B, 41/12A, 41/19& 41/20	1.10.0 0.19.5 1.09.0 0.16.0 0.06.0 0.08.0 0.04.0 0.24.0 0.13.0 0.04.0 1.14.0 -----	05.12.2008 To 04.12.2028	Non-Operation from September 2010 to till date.

ii) Proposed quarries:

S.No	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
1	M/s. Tamil Nadu Minerals Limited, No.31, Kamarajar Salai, Chepauk, Chennai-05.	Silica Sand	Marakkanam & Vadaagaram	73(Part)	3.73.0	-	-

iii) Abandoned Quarries:

S.No	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F.No	Extent (in Hects)	Lease Period	Remarks
----Nil----							


**MEMBER SECRETARY
SEIAA-TN**

DISCUSSION BY SEIAA AND THE REMARKS: -

The subject was placed in the 647th authority meeting held on 21.08.2023. The authority noted that the subject was earlier appraised in the 389th Meeting of SEAC held on 06.07.2023. SEAC has furnished its recommendations for granting Environmental Clearance subject to the conditions stated therein.

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 quantity of 39,986 Ts of Silica Sand up to the depth of 4m BGL and the annual peak production should not exceed 9363 Ts of Silica Sand.** This is also subject to the conditions imposed by SEAC, normal conditions stipulated by MOEF&CC in addition to the following conditions and the conditions in Annexure 'A' of this minutes.

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.
2. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every mine plan period, till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.
3. The project proponent shall furnish a Certified Compliance Report obtained from MoEF&CC while seeking a renewal of the mining plan to cover the project life.
4. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP.
5. 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.
6. 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.


**MEMBER SECRETARY
SEIAA-TN**

Annexure 'A'

a) EC Compliance

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.

b) Applicable Regulatory Frameworks

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

c) Safe mining Practices

6. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission slope stability study conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc.
7. The AD/DD, Dept. of Geology & Mining & Director General of Mine safety shall ensure strict compliance and implementation of bench wise recommendations/action plans as recommended


MEMBER SECRETARY
SEIAA-TN

in the scientific slope stability study of the reputed research & Academic Institutions as a safety precautionary measure to avoid untoward accidents during mining operation.

8. 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.

d) Water Environment – Protection and mitigation measures

9. The proponent shall ensure that the activity does not disturb the water bodies and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area.
10. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighboring open wells and bore wells. The proponent shall ensure that the activities do not in any way affect the water quantity and quality in the open wells and bore wells in the vicinity or impact the water table and levels. The proponent shall ensure that the activities do not disturb the river flow, nor affect the Odai, Water bodies, Dams in the vicinity.
11. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
12. 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.
13. 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.
14. 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.
15. Regular monitoring of ground water level and water quality shall be carried out around the mine area during mining operation. 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.
16. 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.


MEMBER SECRETARY
SEIAA-TN



e) **Air Environment – Protection and mitigation measures**

17. The activity should not result in CO₂ release and temperature rise and add to micro climate alternations.
18. The proponent shall ensure that the activities undertaken do not result in carbon emission, and temperature rise, in the area.
19. 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.

f) **Soil Environment – Protection and mitigation measures**

20. The proponent shall ensure that the operations do not result in loss of soil biological properties and nutrients.
21. The proponent shall ensure that activity does not deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community nor result in eutrophication of soil and water.
22. 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.
23. Bio remediation using microorganisms should be carried out to restore the soil environment to enable carbon sequestration.
24. The proponent shall ensure that the mine restoration is done using mycorrhizal VAM, vermin-composting, Biofertilizers to ensure soil health and biodiversity conservation.
25. The proponent shall ensure that the topsoil is protected and used in planting activities in the area.
26. The proponent shall ensure that topsoil to be utilized for site restoration and Green belt alone within the proposed area.
27. 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.
28. 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.


**MEMBER SECRETARY
SEIAA-TN**

g) Noise Environment – Protection and mitigation measures


29. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
30. The sound at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Hence, the PP shall ensure that the biological clock of the villages are not disturbed because of the mining activity.

h) Biodiversity - Protection and mitigation measures

31. 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.
32. 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 activity does not result in invasion by invasive alien species. 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.
33. The proponent shall ensure that the activities do not disturb the agro biodiversity and agro farms. Actions to be taken to promote agroforestry, mixed plants to support biodiversity conservation in the mine restoration effort.
34. 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.
35. The proponent shall ensure that the activities do not impact green lands/grazing fields of all types surrounding the mine lease area which are food source for the grazing cattle.

i) Climate Change

36. The project activity should not in any way impact the climate and lead to a rise in temperature.
37. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.


**MEMBER SECRETARY
SEIAA-TN**



38. Intensive mining activity should not add to temperature rise and global warming.
39. Operations should not result in GHG releases and extra power consumption leading to Climate Change.
40. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.
41. Mining Operation should not result in droughts, floods and water stress, and shortages, affecting water security both on site and in the vicinity.
42. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.
43. 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.

j) Reserve Forests & Protected Areas

44. The activities should provide nature based support and solutions for forest protection and wildlife conservation.
45. The project activities should not result in forest fires, encroachments or create forest fragmentation and disruption of forest corridors.
46. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands.
47. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation.
48. The project activities should not alter the geodiversity and geological heritage of the area.
49. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behaviour of wildlife and flora.
50. The activities should support and recognise the rights and roles of indigenous people and local communities and also support sustainable development.
51. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds.
52. The project activities should not result in changes in forest structure, habitats and genetic diversity within forests.

k) Green Belt Development

53. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) are planted.


**MEMBER SECRETARY
SEIAA-TN**

54. The proponent shall ensure the area is restored and rehabilitated with native trees as recommended in SEAC Minutes (in Appendix).

l) Workers and their protection

55. 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.

56. 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.

57. The workers shall be employed for working in the mines and the working hours and the wages shall be implemented/enforced as per the Mines Act, 1952.

m) Transportation

58. 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 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.

59. 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


**MEMBER SECRETARY
SEIAA-TN**



dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

n) Storage of wastes

60. 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.

o) CER/EMP

61. The CER should be fully Implemented and fact reflected in the Half-yearly compliance report.

62. The EMP shall also be implemented in consultation with local self-government institutions & Govt. departments.

63. The follow-up action on the implementation of CER Shall be included in the compliance report.


p) Directions for Reclamation of mine sites

64. 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.

65. 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.

66. 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.

67. For mining area reclamation plot culture experiments to be done to identify/ determine suitable species for the site.


**MEMBER SECRETARY
SEIAA-TN**

68. 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.
69. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site.
70. 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.
71. 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.
72. 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.
73. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoils should have necessary physical, chemicals, 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 broad casted after topsoil and treated overburden are spread.
74. 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 over burden. 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. The land disturbed should be reshaped for long term use. Mining should be as far as possible be eco-friendly. Integration of rehabilitation strategies with mining plan will enable speedy restoration.
75. Efforts should to taken to aesthetically improve the mine site. Generally, there are two approaches to restoration i.e Ecological approach which allows tolerant species to establish following the succession process allowing pioneer species to establish. The other approach i.e


MEMBER SECRETARY
SEIAA-TN



plantation approach is with selected native species are planted. A blend of both methods may be used to restore the site by adding soil humus and mycorrhiza.

76. Action taken for restoration of the site should be specifically mentioned in the EC compliances.

CONDITIONS IMPOSED BY SEAC:

1. **The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier.**
2. The PP shall duly conduct the Initial & Periodical examinations of all the workers employed whether permanent, temporary or contractual, before they are engaged in any mining activities as per provisions stipulated in the DGMS Circular No. 1 of 2011. A copy of the aforesaid Survey/Medical examinations shall be sent to the DEE/TNPCB, IR/MoEF & CC, Chennai, and the DMS, DGMS-Chennai Region without fail.
3. The PP shall backfill the waste material excavated during the operation with proper plantation under the guidance of Faculty of Agriculture, Annamalai University, Annamalai Nagar, Chidambaram.
4. The PP shall carry out the scientific studies to assess the hydrogeological conditions and impact of quarrying operation on the surface & ground water environment, **once in 2 years** from the date of lease execution, by involving any one of the reputed Research and Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras – Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, 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
5. The PP shall not carry out the drilling and blasting activities in the quarry.
6. The PP shall carry out the special mitigation measures as enlisted in the Annexure-I to safeguard the Reserve Forest existing within 1 km from the lease.
7. As accepted by the Project Proponent the CER cost of Rs. 3.0 lakhs and the amount shall be spent for (i) the renovation of toilet facilities for the girls & boys and staff members; (ii) provision of environmental awareness books to the students (iii) provision of the benches with


**MEMBER SECRETARY
SEIAA-TN**

chair to the students in the Panchayat Union Primary School, Vadaagaram village, before obtaining CTO from TNPCB.

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 ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination particularly **free silica test** in the DGMS approved OHS Clinics/Hospitals as per the guidelines spelt out in the DGMS Circular No. 01 of 2011 before they are engaged in mining activities. A copy of the report showing the medical examination of the persons employed shall be sent to the DEE/TNPCB, IR/MoEF & CC, Chennai and the DMS, DGMS-Chennai Region within 30 days from the day of medical examination.
6. Further, the PP shall ensure that the Medical Examination of Identified persons or Group of persons working at quarrying operations as well as in the processing areas prone to generate airborne dust should be conducted **once in every six months** and the health assessment for workers exposed to silica dust in the DGMS approved OHS Clinics/Hospitals which includes the following:
 - a. A history should be taken covering:
 - i. The worker's occupational exposure to dust containing silica;
 - ii. Any past or present medical diagnosis of respiratory disease.
 - b. A clinical examination should be carried out on the respiratory tract system.


MEMBER SECRETARY
SEIAA-TN

A copy of the report showing the aforesaid medical examination of the persons employed shall be sent to the DEE/TNPCB, IR/MoEF & CC, Chennai and the DMS, DGMS-Chennai Region within 30 days from the day of medical examination.

7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
13. Proper barriers to reduce noise level and dust pollution should be established by providing grass greenbelt comprising of **three rows of plantations adopting an incremental layer of plants with canopy along the boundary of the quarrying site** and suitable working methodology should be adopted by considering the wind direction.
14. 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.
15. The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
16. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.


MEMBER SECRETARY
SEIAA-TN

17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. **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, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
23. **The PP shall also ensure that the blasting operations are not carried out in the proposed quarry unless it was specified clearly in the Mining Plan approved by the competent authority and subsequently it was also permitted by the SEIAA based on the recommendation of the SEAC.**
24. The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work


MEMBER SECRETARY
SEIAA-TN

before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.

25. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
26. 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.
27. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
28. The proponent shall ensure that the transportation of the quarried mineral 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 mineral; and transport of mineral will be as per IRC Guidelines with respect to complying with traffic congestion and density.
29. 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.
30. The Project Proponent shall take all possible precautions for the protection of environment and control of pollution while carrying out the mining or processing of granite in the area for which such licence or lease is granted, as per
31. 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.
32. 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.
33. 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


MEMBER SECRETARY
SEIAA-TN

to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) by the proponent without fail.

34. 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.
35. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance, as per the existing law from time to time.
36. 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.
37. The Project Proponent shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under.
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. 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.
40. 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 EMP furnished.


MEMBER SECRETARY
SEIAA-TN

Appendix -I
List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Aegle marmelos</i>	Vilvam	வில்வம்
2	<i>Adenanthera pavonina</i>	Manjadi	மஞ்சாடி, ஆனைக்குன்றிமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usai	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தாரை
6	<i>Bauhinia racemosa</i>	Aathi	ஆத்தி
7	<i>Bauhinia tomentos</i>	Iruvathi	இருவாத்தி
8	<i>Buchanania axillaris</i>	Kattuma	காட்டுமா
9	<i>Borassus flabellifer</i>	Panai	பனை
10	<i>Butea monosperma</i>	Murukkamaram	முருக்கமரம்
11	<i>Bobax ceiba</i>	Ilavu, Sevvilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Punnai	புன்னை
13	<i>Cassia fistula</i>	Sarakondrai	சரக்கொன்றை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொன்றை
15	<i>Chloroxylon swietenia</i>	Purasamaram	பரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவளி
18	<i>Creteva adansoni</i>	Mavalingum	மாவிலங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உசா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உசா
21	<i>Diospyro sebenum</i>	Karungali	கருங்காலை
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகை
23	<i>Ficus amplissima</i>	Kalltchi	கல் இச்சி
24	<i>Hibiscus tiliaceou</i>	Aatrupoovarasu	ஆற்றுப்பூவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயில் மரம், ஆயில் ஒதியம்
27	<i>Lansea coromandelica</i>	Odham	பூ மருகு
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	தெய் கொட்டை மரம்
29	<i>Lepisanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டை மரம்
30	<i>Limonia acidissima</i>	Vila maram	வில்லா மரம்
31	<i>Litsea glutinos</i>	Pisinpattai	அரம்பா. பிசின்பட்டை
32	<i>Madhuca longifolia</i>	Illuppai	இலுப்பை
33	<i>Manilkara hexandra</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழமரம்
35	<i>Mitrasyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுணா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுணா
38	<i>Phoenix sylvestre</i>	Eachai	ஈச்சமரம்
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

40	<i>Premna mollissima</i>	Munnai	முன்னை
41	<i>Premna serratifolia</i>	Narumunnai	நறு முன்னை
42	<i>Premna tomentosa</i>	Malaipoovarasu	மலை பூவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வள்ளி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வேங்கை
45	<i>Pterospermum canescens</i>	Vennangu, Tada	வெண்ணாங்கு
46	<i>Pterospermum xylocarpum</i>	Polavu	புலவு
47	<i>Puthranjiva roxburghii</i>	Karipala	கறிபாலா
48	<i>Salvadora persica</i>	Ugaa Maram	ஊகா மரம்
49	<i>Sapindus emarginatus</i>	Manipungan, Soapukai	மணிப்புங்கன் சோப்புக்காய்
50	<i>Saraca asoca</i>	Asoca	அசோகா
51	<i>Streblus asper</i>	Piray maram	பிராய் மரம்
52	<i>Strychnos nuxvomica</i>	Yetti	எட்டி
53	<i>Strychnos potatorum</i>	Therthang Kottai	தேத்தான் கொட்டை
54	<i>Syzygium cumini</i>	Naval	நாவல்
55	<i>Terminalia belleric</i>	Thandri	தான்றி
56	<i>Terminalia arjuna</i>	Ven marudhu	வெண் மருகு
57	<i>Toona ciliata</i>	Sandhana vembu	சந்தன வேம்பு
58	<i>Thespesia populnea</i>	Puvarasu	பூவரசு
59	<i>Walsuratrifoliata</i>	valsura	வால்கரா
60	<i>Wrightia tinctoria</i>	Veppalai	வெப்பாலை
61	<i>Pithecellobium dulce</i>	Kodukkapuli	கொடுக்காப்புளி


MEMBER SECRETARY
SEIAA-TN

Appendix-II

Display Board

(Size 6' x5' with Blue Background and White Letters)

கரங்கம்

கரங்கத்தில் குவாரி செயல்பாடுகளுக்கான சுற்றுச்சூழல் அனுமதி கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது SEIAA/____, தேதியிட LLL. சுற்றுச்சூழல் அனுமதி _____ தேதி வரை செல்லத்தக்கதாக உள்ளது.

பகமை பகுதி வளர்ச்சி மேம்பாட்டுக்கான கரங்கத் திட்டம்	குவாரியின் எல்லையை சுற்றி வேலி அமைக்க வேண்டும் கரங்கப்பாளையின் ஆழம் தரையட்டத்திலிருந்து 1 மீட்டர்க்கு மிகாமல் இருக்க வேண்டும். காற்றில் மாக ஏற்படாதவாறு கரங்க பணிகளை மேற்கொள்ள வேண்டும்.
நட்புபட்டு பராமரிக்கப்பட வேண்டிய மரங்கள் எண்ணிக்கை:	வாகனங்கள் செல்லும் பாதையில் மாக ஏற்படாத அளவிற்கு தள்ளுவண்டி முறையாக தண்ணீர் வாரிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும். இரைச்சல் அளவையும் தூசி மாகபாடையும் குறைப்பதற்காக குவாரியின் எல்லையை சுற்றி அடர்த்தியான பகமை பகுதியை ஏற்படுத்த வேண்டும்.
கரங்கத்தில் வெடி வைக்கும்பொழுது நிலஅதிர்வுகள் ஏற்படாதவாறும் மற்றும் கற்கள் பறக்காதவாறும் பாதுகாப்பு நடவடிக்கைகளை உள்ளீப்பாக செயல்படுத்தப்பட வேண்டும்	
கரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டி.சி.பி.எல் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற்கொள்ள வேண்டும்.	
கரங்க சட்ட விதிகள் 1955ன் கீழ் கரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு க்காதாரமுள்ள சுழிப்பறை வசதிகளை செய்து தர வேண்டும்.	
கிராமம் அல்லது பஞ்சாயத்து வட்டியாக வாகனங்கள் செல்லும் சாலைகளை தொடர்ந்து நன்கு பராமரிக்க வேண்டும்.	
கரங்கப்பணிகளால் அககில் உள்ள விவசாயப் பணிகள் மற்றும் திறிலைகள் பாதிக்கப்படக் கூடாது.	
திறிலைகள் பாதிக்கப்படாமல் இருப்பதை உறுதி செய்யும் வகையில் நிவந்த திறிள் தூத்தினை தொடர்ந்து களகாலிக்க வேண்டும்.	
கரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்லும் கிராம மக்களுக்கு எந்த சிரமத்தினையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் சுற்றுச்சூழல் பாதிக்காத வண்ணம் வாகனங்களை இயக்க வேண்டும்.	
கரங்கப்பணிகள் முடிக்கப்பட்டவுடன் கரங்க மூடல் திட்டத்தில் உள்ளவாறு கரங்கத்தினை மூட வேண்டும்.	
கரங்க நடவடிக்கைகளை முடித்தபின்னர் கரங்கப் பகுதி மற்றும் கரங்க நடவடிக்கைகளால் இடபூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தரவர்கள் விலக்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் பகமைப்பகுதியை உருவாக்க வேண்டும்.	
(முழுளவயான நிபந்தனைகளை அறிய பாரிவேஷ் (http://parivesh.nic.in) என்சிற இணையதளத்தைப் பார்க்கவும். மேலும் எந்தவித சுற்றுச்சூழல் சார்ந்த புகார்களுக்கு சென்னைபில் உள்ள சுற்றுச்சூழல் மற்றும் வன அமைச்சகத்தின் ஓசூல்கிணைந்த வட்டார அலுவலகம்: 04-28222325 (அல்லது) தமிழ்நாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட சுற்றுச்சூழல் பொறியாளர் அலுவலகம்.	

Part A: Conditions to be Complied before/during commencing operations:-

- 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
 - The project has been accorded Environmental Clearance.
 - Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - Environmental Clearance may also be seen on the website of the SEIAA.
 - 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.
- The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
- 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

MEMBER SECRETARY
SEIAA-TN

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.

4. The proponent shall ensure that First Aid Box is available at site.
5. The excavation activity shall not alter the natural drainage pattern of the area.
6. The excavated pit shall be restored by the project proponent for useful purposes.
7. The proponent shall quarry and remove only in the permitted and approved areas.
8. The proponent shall do the quarrying as per the approved mining plan.
9. It shall be ensured that the quarrying operation shall be carried out between 7AM and 5 PM.
10. 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.
11. The mined out pits should be backfilled wherever warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed. The District administration should ensure the fully implementation of mine closure plan before release of lease deed.
12. No drilling and blasting operation shall be carried out under any circumstances.
13. Free silica test should be conducted and reported.
14. Air Sampling at intersection point should be conducted and reported.
15. Bunds to be provided at the boundary of the project site.
16. Rainwater shall be pumped out via settling tank only
17. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area
18. Earthen bunds and barbed wire fencing around the pits all along the boundary shall be maintained.
19. The CSR funds should be channelized for planting programme, nature conservation support, tribal development and activities that support forest and environment.
20. As per MoEF & CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wildlife angle including clearance from obtaining committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.


MEMBER SECRETARY
SEIAA-TN

21. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. A copy of action plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Chennai.
22. It shall be ensured that the total extent of Mining area including existing, abandoned and proposed shall not exceed 5 Ha within 500 meter radius from the boundary of this quarry within the mining lease period of this application. If the area exceeds, the applicant has to obtain fresh Environmental Clearance submitting EIA Study Report under Category "B1" (As per the order of Hon'ble NGT, PB, New Delhi in O.A No.186 of 2016 (M.A.No.350/2016), O.A.No.200/2016, O.A.No.580/2016 (M.A.No.1182/2016), O.A.No.102/2017, O.A.No.404/ 2016 (M.A.No.758/2016, M.A. No. 920 /2016, M.A.No.1122/2016, M.A.No.12/2017 & M.A.No.843/2017), O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).
23. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site.
24. Whenever/wherever, "Savudu" /" Red Earth" /"Brick Earth" are removed from tanks, the project proponents should see that the free flow of water from and into the tanks are ensured through maintenance of inlet and outlet channels. Removal Earth should be in smooth, sloppy way towards deeper portion of the tank.
25. The Assistant/Deputy Director of Geology & Mining shall ensure that the total extent of mining area within 500m radius of this quarry not exceeds 5ha before execution of the quarry lease proceedings. (As per the order of Hon'ble NGT, PB, New Delhi in O.A No.186 of 2016 (M.A.No.350/2016), O.A.No.200/2016, O.A.No.580/2016 (M.A.No.1182/2016), O.A.No.102/2017, O.A.No.404/ 2016 (M.A.No.758/2016, M.A.No.920/2016, M.A.No.1122/2016, M.A.No.12/2017 & M.A.No.843/2017), O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).
26. The Assistant Director of Geology & Mining shall monitor the quantity of minerals excavated and ensure that resources other than the approved minerals shall not be excavated from the approved Mining area. The Department of Geology & Mining is responsible for the enforcement of Tamil Nadu Minor Mineral Concession Rules, 1959 and any violation shall be punished according to the said Act.


MEMBER SECRETARY
SEIAA-TN



27. The Project Proponent shall obtain & furnish the letter /certificate from the Assistant Director of Geology and Mining stating that there is no other Minerals/resources like sand in the quarrying area below the approved depth of Mining before execution of Mining lease.
28. The Proponent shall ensure that the project activity including 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.
29. The Project Proponent is also directed to strictly adhere to the Sustainable Sand Mining Management Guidelines, 2016, wherever applicable.
30. The depth of the mining should be limited to the sill level of the sluice of the tank.
31. Floor of excavated pit should be levelled and sides to be sloped gently in the mine closure phase.
32. All the commitment made by the project proponent in the proposal shall be strictly followed.
33. The mining lease holder 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.


MEMBER SECRETARY
SEIAA-TN

8. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and 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


MEMBER SECRETARY
SEIAA-TN

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 the 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 St.atutory/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.


MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Industries 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, Villupuram District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. Assistant Director, Department of Geology & Mining, Villupuram District
10. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
11. File Copy.

