

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/74005/2018 dated 30 Jun 2022. The particulars of the environmental
clearance granted to the project are as below.

1. EC Identification No.	EC23B001TN150756
2. File No.	1107
3. Project Type	New
4. Category	B1
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	SUNJALNATHAM BLACK GRANITE QUARRY
7. Name of Company/Organization	M/S. TAMIL NADU MINERALS LIMITED
8. Location of Project	Tamil Nadu
9. TOR Date	17 Nov 2020

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

Date: 05/10/2023

(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.*

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

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY – TAMIL NADU
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai-15.
Phone No. 044-24359973
Fax No. 044-24359975

ENVIRONMENTAL CLEARANCE

Lr.No.SEIAA-TN/F.No.1107/1(a)/EC.No:6072/2023, dated:11.09.2023

To,

M/s. Tamil Nadu Minerals Limited,
No. 31, Kamarajar Salai,
“TWAD House” Chepauk,
Post Box No. 2961,
Chennai - 600 005.

Sir,

Sub: SEIAA, TN – Environmental Clearance under violation for the existing Black Granite quarry lease over an extent of 35.99.0Ha by M/s. Tamil Nadu Minerals Limited at S.F.Nos.412 (Part) in Sunjalnatham Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu – Issued – Regarding.

- Ref:**
1. MoEF & CC Notification S.O.804(E) dated 14.03.2017
 2. MoEF & CC Notification S.O.1030(E) dated 08.03.2018
 3. Proponent hardcopy application submitted for Violation ToR to SEIAA-TN on 02.06.2018 & online proposal SIA/TN/MIN/27283/2018 Dated: 21.08.2017
 4. ToR under violation issued by SEIAA-TN vide Lr No.SEIAA-TN/F.No.1107/2013/TOR-820/2020 Dated: 17.11.2020
 5. Public Hearing conducted by TNPCB on 21.01.2022
 6. Online Application for EC vide SIA/TN/MIN/74005/2018 dated: 23.03.2022
 7. Proponent submitted EIA report to SEIAA-TN on 25.03.2022
 8. Minutes of the 291st SEAC meeting held on 01.07.2022


MEMBER SECRETARY
SEIAA-TN

Page 1 of 36

9. Minutes of the 335th SEAC meeting held on 06.12.2022
10. Minutes of the 347th SEAC meeting held on 13.01.2023
11. Minutes of the 367th SEAC meeting held on 31.03.2023
12. Proponent reply dated 28.04.2023
13. Minutes of the 383rd SEAC meeting held on 15.06.2023
14. Minutes of the 633rd SEIAA meeting held on 26.06.2023 & 27.06.2023
15. Proponent reply dated 14.08.2023 & 07.09.2023
16. Minutes of the 653rd SEIAA meeting held on 11.09.2023

- I. This has reference to your application for Environmental Clearance to SEIAA-TN under violation category dated 23.03.2022 & 25.03.2022 and along with subsequent documents & EIA report submitted for the aforesaid project to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006.
- II. It is noted, that the existing Black Granite quarry lease over an extent of 35.99.0 Ha by M/s. Tamil Nadu Minerals Limited at S.F.Nos. 412 (Part) in Sunjalnatham Village, Pennagaram Taluk, Dharmapuri District, under violation notification dated 14.03.2017 & 08.03.2018.
- III. The project proponent application submitted for ToR to SEIAA-TN online proposal SIA/TN/MIN/27283/2018 Dated: 21.08.2017. Proponent hardcopy application submitted for ToR to SEIAA on 02.06.2018.
- IV. The subject was placed in the 125th SEAC meeting held on 02.02.2019 and the 409th SEIAA meeting held on 05.11.2020. The authority recommended to Terms of Reference with public Hearing. The ToR under violation was issued by SEIAA-TN vide Lr No.SEIAA-TN/F.No.1107/2013/TOR-820/2020 Dated: 17.11.2020.
- V. The public hearing was conducted by Tamil Nadu Pollution Control Board on 21.01.2022 at 11:00AM at Dharmapuri District.
- VI. The public hearing minutes received by SEIAA-TN from TNPCB.
- VII. The project proponent submitted final Environment Impact Assessment and Environment Management plan to SEIAA-TN on 25.03.2022.


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SEIAA-TN

Sl. No	Details of the Proposal	Data Furnished
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	Black Granite
3.	S.F No. of the quarry site	412 (Part)
4.	Village in which situated	Sunjalnatham
5.	Taluk in which situated	Pennagaram
6.	District in which situated	Dharmapuri
7.	Extent of quarry (in ha.)	35.99.0 Ha
8.	Latitude & Longitude of all corners of the quarry site	12°00'23.16"N to 12°00'59.19"N 77°47'29.80"E to 77°48'05.67"E
9.	Topo Sheet No.	57 H/16 & 58 E/13
10.	Type of mining	Opencast Semi Mechanized Mining
11.	Period of current mine plan	5 Years (2023-24 to 2026-27)
12.	Production (Quantity in m ³)	237084m³ ROM which includes 23708m³ of Black Granite (10% recovery) and 213376m³ of Black Granite waste. The annual peak production should not exceed 59272m³ of ROM, 5927m³ of Black Granite (10%) & 53345m³ of Granite Waste (90%).
13.	Depth of mining	30m BGL
14.	Depth of water table	10 to 15m (summer) 12 to 17m (winter)
15.	Man Power requirement	41 Nos
16.	Water requirement: 1. Domestic & Flushing	2.3 KLD 1.4 KLD

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SEIAA-TN**

	2. Dust suppression	0.9 KLD
17.	Power requirement a. Domestic purpose	TNEB
18.	Precise area communication approved by the Principal Secretary to Government, Industries Department with date	G.O.(3D) No.51, Industries (MME1) Department dated: 11.01.2011
19.	Mining Plan approved by the Director of Geology and Mining with date	Re.No.1125/MM4/2022 dated: 01.03.2022
22.	Project Cost (excluding EMP)	Rs. 99.97 Lakhs
23.	EMP cost (remediation Cost)	Rs.57.584 Lakhs
24.	ToR details	Lr No.SEIAA-TN/F.No.1107/2013/TOR-820/2020 Dated: 17.11.2020
25.	Public hearing details	21.01.2022
26.	EIA report submitted on	25.03.2022
27.	CER cost	Rs. 14.396 Lakhs

Validity:

This Environmental Clearance is accorded for the period (2023 – 24) to (2025 -27) and the quantity of 237084 m³ of ROM, 23,708 m³ of Black Granite (10%) & 2,13,376m³ of Granite Waste (90%) to the depth of 30m BGL and the annual peak production should not exceed 59272m³ of ROM, 5927m³ of Black Granite (10%) & 53345m³ of Granite Waste (90%).

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

Affidavit

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

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

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We have applied for getting Environment Clearance to SEIAA, Tamil Nadu for Sunjalnatham Black Granite Quarry over an extent of 35.99.0Ha of Govt. poramboke land in SF No. 412(P) of Sunjalnatham Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu. I swear to state and confirm that within 10Km area of the mine site. We have applied for environmental clearance none of the following is situated.

- a. Protected areas notified under the Wildlife (Protection) Act,1972
 - b. Critically polluted areas as identified by CPCB constituted under Water (Prevention and Control of Pollution) Act,1974.
 - c. Eco Sensitive areas as notified
 - d. Interstate boundaries and international boundaries within 5Km radius from the boundary of the proposed site.
1. TAMIN will complete the Corporate Environment Responsibility (CER) activities as directed by SEAC/SEIAA as per MoEF&CC, OM dated 20.10.2020. All the activities proposed by Project Proponent or prescribed by the EAC or SEAC, as the case may be, shall be part of the Environment Management Plan. Accordingly, necessary Environment Management Plan will be submitted to TNPCB and the same will be implemented during the course of mining operation as recurring cost.
 2. 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.
 3. No approved habitations as per Rule 36(1) of Tamil Nadu Minor Mineral Concession Rules, 1959 located within 500 meters radius from the periphery of my mine.
 4. We swear that afforestation will be carried out during the course of mining operation and maintained.
 5. The required insurance will be taken in the name of the labourers working in my mine site.
 6. We will not engage any child labour in my mine site.
 7. All type of Safety / protective equipments will be provided to all the labourers working in my mine.
 8. No approved permanent structures, temples etc are located within 500m radius from the periphery of my mine.


MEMBER SECRETARY
SEIAA-TN

9. The mining activity will be carried out only after obtaining environmental clearance. We ensure to do all the Social and Environmental commitment as mentioned in the Mining Plan to the best of my knowledge.

I, Dr. E.Ganesan represents M/s. Tamil Nadu Minerals Limited, as Deputy Manager (Mining Lease) and authorized signatory of the project, in respect of Sunjalnatham Black Granite Quarry over an extent of 35.99.0Ha of Govt. poramboke land in SF No. 412(P) of Sunjalnatham Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu State., undersigned hereby take oath and state as under in this affidavit:

“To comply with all the statutory requirements and judgment of Hon’ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No.114/2014 in the matter of Common Cause versus Union of India and Ors. Before grant of ToR/EC and I am also to commit, not to repeat any such violation in future. In case of any violation of the above the ToR/Environmental Clearance shall be liable to the terminated forthwith”.

Discussion by SEIAA and the Remarks:-

The subject was placed in 653rd Authority meeting held on 11.09.2023. The authority noted that the proponent has furnished reply Dt: 07.09.2023 for the additional particulars sought in the 633rd Authority meeting held on 27.06.2023 as follows

- a) The PP has submitted Bank guarantee no. 0183711230000220 Dated: 11.08.2023 for Rs.57.584 Lakhs in regard to Ecological remediation (Rs. 14.396 lakhs), natural resource augmentation (Rs. 17.995 lakhs) & community resource augmentation (Rs. 25.193 lakhs).
- b) The PP has submitted acknowledgement from Head Master, Sunjalnatham Government School, Eriyur, Sunjalanatham, Pennagaram Taluk, Dharmapuri District for receiving a sum of Rs. **14.396 lakhs** vide DD no. 253085/09.08.2023.
- c) The project proponent has submitted C.C no.305/2022 & CNR No. TNDP04-00721 -2022 filed in the Hon’ble Chief Judicial Magistrate, Dharmapuri and this court Judgement Dt: 12.10.2022.
- d) The PP has submitted letter from Director, Dept. G&M, Chennai vide Rc. No.265/MM4/2020/ Dated 08.07.2020 regard to NOC for remittance of penalty towards quantity transported during violated period.


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The Authority noted that this proposal was placed for appraisal in this 383rd SEAC meeting held on 15.06.2023 and SEAC has furnished its recommendations for granting Environmental Clearance under violation 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 period (2023 – 24) to (2025 -27) and the quantity of 237084 m³ of ROM , 23,708 m³ of Black Granite (10%) & 2,13,376m³ of Granite Waste (90%) to the depth of 30m BGL and the annual peak production should not exceed 59272m³ of ROM , 5927 m³ of Black Granite (10%) & 53345 m³ of Granite Waste (90%).** 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


MEMBER SECRETARY
SEIAA-TN

elaborated in the bi-annual compliance report submitted and also should be brought to the notice of concerned authorities during inspections.

7. The PP shall carryout transplantation/ plantation/ afforestation of tall native saplings in the ratio1:10 in regard to existing the trees cut down (or) 500 Nos. of Trees per hectare of mining lease area all along the periphery within the proposed mining area and as well as avenue plantation as committed.

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


MEMBER SECRETARY
SEIAA-TN

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 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.


MEMBER SECRETARY
SEIAA-TN



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.

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.


MEMBER SECRETARY
SEIAA-TN

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.

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


MEMBER SECRETARY
SEIAA-TN

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.
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.


MEMBER SECRETARY
SEIAA-TN

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.
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


MEMBER SECRETARY
SEIAA-TN

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 dust


MEMBER SECRETARY
SEIAA-TN

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.
 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


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SEIAA-TN

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 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.

Appraisal by SEAC:-

The proposal was again placed for appraisal in 383rd meeting of SEAC held on 15.06.2023.

Based on the presentation & documents furnished and the Committee carefully examined the points raised by SEAC and the replies given by the PP. The SEAC observed that the existing Black Granite mining activity was carried out without prior environmental clearance & the proposal seeking Environmental Clearance under violation category for the existing Black Granite quarry lease over an extent of 35.99.0 Ha at S.F.No: 412 (P) at Sunjalanatham Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu by M/s. Tamil Nadu Minerals Limited which is categorized under the “low level ecological damage category”. The SEAC after detailed deliberations decided to *recommend* the project proposal for grant of Environmental Clearance subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- 1) As per the MoEF& CC Notification, S.O.1030 (E) dated:08.03.2018, “The project proponent shall submit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan with the State Pollution Control Board and the quantification will be recommended by the Expert Appraisal Committee for category A projects or by the State or Union territory level Expert


MEMBER SECRETARY
SEIAA-TN

Appraisal Committee for category B projects, as the case may be, and finalized by the concerned Regulatory Authority, and the bank guarantee shall be deposited.

- a) Accordingly, the amount prescribed for Ecological remediation (Rs. 14.396 lakhs), natural resource augmentation (Rs. 17.995 lakhs) & community resource augmentation (Rs. 25.193 lakhs), totaling Rs.57.584 Lakhs. Hence the SEAC after detailed deliberations decided to direct the project proponent to remit the amount of Rs. 57.584 Lakhs in the form of bank guarantee to Tamil Nadu Pollution Control Board and submit the acknowledgement of the same to SEIAA-TN. The funds shall be utilized for the remediation plan, Natural resource augmentation plan & Community resource augmentation plan as indicated in the EIA/EMP report.
 - b) The project proponent shall carry out the works assigned under ecological damage, natural resource augmentation and community resource augmentation within a period of one year. If not, the bank guarantee will be forfeited to TNPCCB without further notice.
 - c) The amount committed by the Project proponent for **CER (Rs. 14.396 lakhs)** shall be remitted in the form of DD to the beneficiary for the activities committed by the proponent. A copy of receipt from the beneficiary shall be submitted to SEIAA-TN.
- 2) The company shall obtain 'No Dues Certificate' from State Government i.e. Department of Geology & Mining within a period of two weeks and submit the same to SEAC before grant of EC, if not produced earlier.
 - 3) The PP shall ensure that the plantation shall be carried out in 2.00 Ha in a phase manner as a part of mine closure activities.
 - 4) The PP shall install the Environmental Management Cell headed by the statutory (I/II Class) Mines Manager of the concerned mine under violation category and the cell shall include a dedicated full-time Environmental Engineer exclusively to look into the effective implementation of Environmental Management Plan besides the reviewing the compliance reports with the regulatory authorities.
 - 5) The PP shall strictly adhere with the safety provisions as laid for the operation of Diamond Wire Saw machines and use of Cranes vide DGMS Tech Circulars No: 02 of 29.11.2019 & No. 10 of 19.07.2002 respectively.


MEMBER SECRETARY
SEIAA-TN

- 6) The PP shall ensure that the Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral reject (Granite waste) dumps. The water so collected in such sump should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly de-silted and maintained properly.
- 7) 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.
- 8) The proponent shall obtain a 'Star Rating' system awarded by Anna University, Chennai annually to the mining lease being operated for their efforts and initiatives taken for successful implementation of the Sustainable Development Framework (SDF).
- 9) The Project Proponent shall ensure that 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 MoEF & CC Ministry and its Integrated Regional Office (IRO) located in Chennai.
- 10) 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.
- 11) The PP shall inform the notice of opening of the quarry to the Director of Mines Safety (DMS)/Chennai Region and get the necessary statutory permission under the MMR 1961 pertaining to the mine working operations in the proposed quarry from the DMS, Chennai before obtaining the CTO.
- 12) The mine manager and other statutory competent persons such as blaster (or) mine mate shall be appointed as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961 before the obtaining the CTO from the DEE/TNPCB.
- 13) The proponent shall maintain 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.


MEMBER SECRETARY
SEIAA-TN

- 14) Further, the PP shall maintain the garland drain with proper size, gradient and length along the boundary of the pit leaving behind the mandatory safety zone of 7.5 / 10 m as it is designed to take care of run-off water (size, gradient and length) before obtaining the CTO from TNPCB.
- 15) The PP shall ensure that the benches & haul road are properly designed and formed in accordance with the provisions of MMR 1991.
- 16) The PP shall carry out maximum of TWO rounds of controlled blast per day, restricted to the maximum of 50 to 60 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 300 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting. The PP shall also ensure that the blasting operation shall be carried out once in 2 days to reduce the environmental impacts effectively.
- 17) However, within one year from the commencement of mining operations, the PP shall carry out the scientific studies on 'Design of Blast parameters for reducing the impact of blast-induced ground/air vibrations and fly rock caused due to operation of the quarry by adopting appropriate controlled blasting techniques', by involving a reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal and Anna University – 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.
- 18) No 'Deep-hole large diameter drilling and blasting' is permitted in the proposed quarry.
- 19) 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.
- 20) 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.
- 21) 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.


MEMBER SECRETARY
SEIAA-TN

- 22) The project proponent shall allocate a separate area for waste dumping and proper protective structure may be made to contain the fugitive emissions from the same.
- 23) The project proponent should install cautionary boards at the entry and important locations of the mining site displaying caution notice to the public about the danger of entering the mining areas.
- 24) The Project Proponent shall ensure that 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 MoEF& CC Ministry and its Integrated Regional Office (IRO) located in Chennai.

ANNEXURE-I

1. The proponent shall mandatorily appoint the required number of statutory officials and the competent persons in relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferrous Mines Regulations, 1961.
2. The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
3. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
4. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.
5. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height,


MEMBER SECRETARY
SEIAA-TN

width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

6. The proponent shall ensure that the slope of dumps is suitably vegetated in scientific manner with the native species to maintain the slope stability, prevent erosion and surface run off. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps.
7. Perennial sprinkling arrangement 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.
8. The Project Proponent shall carry out slope stability study by a reputed academic/research institution such as NIRM, IIT, Anna University for evaluating the safe slope angle if the proposed dump height is more than 30 meters. The slope stability report shall be submitted to concerned Regional office of MoEF&CC, Govt. of India, Chennai as well as SEIAA, Tamilnadu.
9. 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 undertaken accordingly. The report on the periodic monitoring shall be submitted to TNPCB once in 6 months.
10. 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.
11. 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 in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
12. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted in proper escapements as per the advice of local forest


MEMBER SECRETARY
SEIAA-TN

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.

13. **Noise and Vibration Related:** (i) The Proponent shall carry out only the Controlled Blasting operation using NONEL shock tube initiation system during daytime. Usage of other initiation systems such as detonating cord/fuse, safety fuse, ordinary detonators, cord relays, should be avoided in the blasting operation. The mitigation measures for control of ground vibrations and to arrest fly rocks should be implemented meticulously under the supervision of statutory competent persons possessing the I / II Class Mines Manager / Foreman / Blaster certificate issued by the DGMS under MMR 1961, appointed in the quarry. No secondary blasting of boulders shall be carried out in any occasions and only the Rock Breakers (or) other suitable non-explosive techniques shall be adopted if such secondary breakage is required. The Project Proponent shall provide required number of the security sentries for guarding the danger zone of 500 m radius from the site of blasting to ensure that no human/animal is present within this danger zone and also no person is allowed to enter into (or) stay in the danger zone during the blasting. (ii) 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.
14. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
15. 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.
16. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
17. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take


MEMBER SECRETARY
SEIAA-TN

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 rough stones; and transport of rough stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.

18. 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.
19. After mining operations are completed, the mine closure activities as indicated in the mine closure plan shall be strictly carried out by the Proponent fulfilling the necessary actions as assured in the Environmental Management Plan.
20. The Project proponent 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 that is fit for the growth of fodder, flora, fauna etc.
21. 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.
22. The project proponent shall ensure that the provisions of the MMRD, 1956, 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.
23. 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.
24. 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.


MEMBER SECRETARY
SEIAA-TN

25. 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.
26. 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.
27. 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.
28. The Project proponent shall install a Display Board at the entrance of the mining lease area/abutting the public Road, about the project information as shown in the **Appendix -II** of this minute.

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>Adenaanthera pavonina</i>	Manjadi	மஞ்சாடி, ஆனைக்குன்றிமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usil	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 sweitenia</i>	Purasamaram	புரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjalllavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவுளி.
18	<i>Creteva adansoni</i>	Mavalingum	மாவிளங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உசா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உசா
21	<i>Diospyro sebenum</i>	Karungali	கருங்காலி
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகனை
23	<i>Ficus amplissima</i>	Kalltchi	கல் இச்சி
24	<i>Hibiscus tiliaceou</i>	Aatrupoovarasu	ஆற்றுப்புவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயா மரம், ஆயிலி
27	<i>Lannea coromandelica</i>	Odhiam	ஒதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Lepisanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டடை மரம்
30	<i>Limonia acidissima</i>	Vila maram	விலா 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>Mitragyna 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	பங்கம்


MEMBER SECRETARY
SEIAA-TN

40	<i>Premna mollissima</i>	Munnai	முன்னை
41	<i>Premna serratifolia</i>	Narumunurai	நறு முன்னை
42	<i>Premna tomentosa</i>	Malaipoovarasu	மலை பூவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வன்னி 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 மருது
57	<i>Toona ciliata</i>	Sandhana vembu	சந்தன வேம்பு
58	<i>Thespesia populnea</i>	Puvarasu	பூவரசு
59	<i>Walsuratrifoliata</i>	valsura	வால்சுரா
60	<i>Wrightia tinctoria</i>	Veppalai	வெப்பாலை
61	<i>Pithecellobium dulce</i>	Kodukkapuli	கொடுக்காப்புளி

Appendix –II
Display Board

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

சுரங்கம்

கரங்கங்களில் குவாரி செயல்பாடுகளுக்கான சுற்றுச்சூழல் அனுமதி கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது SEIAA/....., தேதியிடப்பட்டு, சுற்றுச்சூழல் அனுமதி _____ தேதி வரை செல்லத்தக்கதாக உள்ளது.

புகளம் பகுதி வளர்ச்சி மேம்பாட்டுக்கான கரங்கத் திட்டம்	குவாரியின் எல்லையைச் சுற்றி வேலி அமைக்க வேண்டும் கரங்கப்பாதையின் ஆழம் தரைமட்டத்திலிருந்து மீட்டர்க்கு மிகாமல் இருக்க வேண்டும். காற்றில் மாக ஏற்படாதவாறு கரங்க பணிகளை மேற்கொள்ள வேண்டும். வாகனங்கள் செல்லும் பாதையில் மாக ஏற்படாத அளவிற்கு தண்ணீரை முறையாக தண்ணீர் வாரிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும். இரைச்சல் அளவையும் தூசி மாகபாட்டையும் குறைப்பதற்காக குவாரியின் எல்லையை சுற்றி அடர்த்தியான புகளம் பகுதியை ஏற்படுத்த வேண்டும்.
நடப்பட்டு பராமரிக்கப்படவேண்டிய மரங்கள் எண்ணிக்கை:	கரங்கத்தில் வெடி வைக்கும்பொழுது நிலஅதிர்வுகள் ஏற்படாதவாறும் மற்றும் கற்கள் பறக்காதவாரும் பாதுகாப்பு நடவடிக்கைகளை உன்னிப்பாக செயல்படுத்தப்பட வேண்டும் கரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டெசிபெல்ஸ் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற்கொள்ள வேண்டும். கரங்க சட்ட விதிகள் 1955ன் கீழ் கரங்கத்தில் உள்ள பணியார்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு க்காதாரமுள்ள கழிப்பறை வசதிகளை செய்து தர வேண்டும். கிராமம் அல்லது பஞ்சாயத்து வழியாக வாகனங்கள் செல்லும் சாலையை தொடர்ந்து நன்கு பராமரிக்க வேண்டும். கரங்கப்பணிகளால் அருகில் உள்ள விவசாயப் பணிகள் மற்றும் நீர்நிலைகள் பாதிக்கப்படக் கூடாது. நீர்நிலைகள் பாதிக்கப்படாமல் இருப்பதை உறுதி செய்யும் வகையில் நிலத்தடி நீர் தாத்தினை தொடர்ந்து கண்காணிக்க வேண்டும். கரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் சிரமத்தினையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் சுற்றுச்சூழல் பாதிக்கவாத வண்ணம் வாகனங்களை இயக்க வேண்டும். கரங்கப்பணிகள் முடிக்கப்பட்டவுடன் கரங்க மூடல் திட்டத்தில் உள்ளவாறு கரங்கத்தினை மூட வேண்டும். கரங்க நடவடிக்கைகளை முடித்தபின்னர் கரங்கப் பகுதி மற்றும் கரங்க நடவடிக்கைகளால் இடையூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தாவரங்கள் விவங்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் புகளம்பகுதியை உருவாக்க வேண்டும். (முழுமையான நிபந்தனைகளை அறிய பாரிவேஷ (http://parivesh.nic.in) என்கிற இணையதளத்தைப் பார்வையிடவும். மேலும் எந்தவித சுற்றுச்சூழல் சார்ந்த புகார்களுக்கு சென்னையில் உள்ள சுற்றுச்சூழல் மற்றும் வன அமைச்சகத்தின் ஒருங்கிணைந்த வட்டார அலுவலகம்: 044 – 28222325 (அல்லது) தமிழ்நாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட சுற்றுச்சூழல் பொறியாளரை அணுகவும்.

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SEIAA-TN

STANDARD CONDITIONS

Part – A : Conditions to be compiled before commencing mining operations

- I. The project authorities shall advertise in two widely circulated local newspapers, one of which shall be in the vernacular language of the locality concerned 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 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.

Conditions for Pre – Mining operation:

- i. “Consent to Operate” should be obtained from the Tamil Nadu Pollution Control Board before the start of the operation of the project and copy shall be submitted to the SEIAA-TN.
- ii. The project proponent shall carry out the works assigned under ecological damage, natural resource augmentation and community resource augmentation within a period of three year. If not, the bank guarantee will be forfeited to TNPCB without further notice.
- iii. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained. No change in mining technology and scope of working should be made without prior approval of the State Environmental Impact Assessment Authority. No change in the calendar plan including excavation, quantum of Granite and waste should be made.
- iv. Project proponent shall comply with all the guidelines and notifications issued by MoEF & CC, New Delhi regarding Mining of Minerals and comply with orders of Hon’ble NGT from time to time regarding mining of minerals under 1(a).
- v. A copy of the clearance letter shall be sent by the proponent to the Local Body, Pennagaram Taluk, Dharmapuri District, and the Local NGO, if any, from whom suggestions / representations, if any, have been received while processing the


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SEIAA-TN

- proposal. The clearance letter shall also be put on the website of the Proponent.
- vi. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire and Rescue Services Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wild Life (Protection) Act, 1972, State / Central Ground Water Authority, Coastal Regulatory Zone Authority, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the concerned competent authorities.
 - vii. All required sanitary and hygienic measures should be in place before starting mining.
 - viii. The company shall stress upon the preventive aspects of occupational health.
 - ix. Provision shall be made for the housing of mining labour with all necessary infrastructure and facilities such as, mobile toilets, Safe drinking water, medical health care, crèche etc.
 - x. The project authorities should advertise with basic details at least in two widely circulated local newspapers, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of SEIAA, TN and a copy of the same should be forwarded to the TNPCB located at Chennai.
 - xi. A separate environment and safety management cell with qualified staff shall be set up before commissioning of mining activities and shall be retained throughout the lifetime of the mine, for implementation of the stipulated environmental safeguards.
 - xii. The State Pollution Control Board should display a copy of the Environmental Clearance issued to the project at the Regional office, District Industry Centre and the Collector's office/Tahsildar's office for 30 days.
 - xiii. A scientific site / ecological rehabilitation and restoration plan on long term basis should be drawn to carryout restoration with native species and Bio diversity.
 - xiv. The existing water bodies should not be disturbed to ensure sustainable environment for aquatic life forms.


MEMBER SECRETARY
SEIAA-TN

- xv. The proponent should completely implement all environmental pollution control measures as detailed in the EIA report and in the additional report.
- xvi. Regarding CSR activities, the proponent should concentrate more on infrastructure facilities useful to the local community. They should include skill development and sports as some of the activities in this regard.
- xvii. Regular monitoring and check up for pulmonary and carcinogenic diseases to be carried out regularly, not only for the workers involved in the mines but also to the people in the villages adjoining the mines. Interaction with the PHC & district medical officer should be on regular basis to monitor the incidence of the diseases if any and to provide suitable medical facility for the patients.

Conditions for Mining Phase

- I. To furnish to the SEIAA for one year period:
- a. Report on quality and quantity of ground water to be generated during mining operations.
- b. Comparative statement on normal ground water and mined out water with respect to qualities & suitability for agriculture etc for one year period.
- II. Monitoring of well water levels and water quality of the wells in the locations furnished in the EIA report shall be done during pre-monsoon and post monsoon period and results submitted to the TNPCB, Chennai and SEIAA-TN.
- III. Monitoring of water quality and air quality in and around the project site in the selected monitoring points as mentioned in the EIA report shall be continued regularly involving Academic Institutions.
- IV. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the TNPCB, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting


MEMBER SECRETARY
SEIAA-TN

depleted due to the mining activity; necessary corrective measures shall be carried out.

- V. The proponent shall conduct AAQ Monitoring Survey once in 6 months in the locations furnished in the EIA report and furnish report to the TNPCB, Chennai.
- VI. The critical parameters such as RSPM (PM_{2.5}, P.M₁₀) and NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain.
- VII. Data on ambient air quality [(RSPM and NOx] shall be regularly submitted to the TNPCB at Chennai and the SEIAA/SPCB/CPCB once in six months.
- VIII. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- IX. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- X. Regular medical check-up for mine workers and nearby residents around the project site involving community medical centre/NIMH shall be conducted.
- XI. As per norms, the health study should be conducted through competent/approved health organization and report submitted for one year.
- XII. Corpus fund created should ne prioritized and utilized for health issues.
- XIII. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral within the lease area. The mineral transportation within the mine lease shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.


MEMBER SECRETARY
SEIAA-TN

- XIV. The effective safe guard measures shall be provided to control particulate dust level in critical areas, transfer points and haul road within the mine area.
- XV. At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for monitoring of RSPM (PM_{2.5}, P.M₁₀) and NO_x. Location of the stations should be decided in consultation with Tamil Nadu Pollution Control Board based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring etc.
- XVI. Separate drain shall be constructed in between waste dump (bund) and nearby river course, if any, to avoid silting in the water body.
- XVII. Garland drains and siltation ponds of appropriate size shall be constructed around the mine working, soil and mineral dumps to prevent run off of water and flow of sediments. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted, particularly after the monsoon, and maintained properly.
- XVIII. The rain water accumulation in the mine during rainy seasons shall be treated by providing settling tanks in the periphery of the mining lease area and the overflow clean water from the settling tanks shall be allowed to discharge through the first order streams to join nearby natural drains. The settling tanks shall be cleaned periodically for removal of sediments and such records of cleaning shall be maintained properly.
- XIX. Garland drains proposed on the non moving sides of the Dump yards shall be connected to settling tanks to arrest any wash off sediments from the dumps and only overflowing clean water shall be allowed to discharge through the first order streams. The settling tanks shall be of sufficient dimensions to hold the wash offs in one rainy season and has to be cleaned before every rainy season.
- XX. Conservation plan furnished to protect the scheduled flora and fauna in the core and buffer zone of the project site shall be implemented. Scheduled species of fauna found in the study area shall be monitored closely.
- XXI. Annual monitoring on Bio-diversity around the project site shall be conducted and a report shall be furnished.


MEMBER SECRETARY
SEIAA-TN

- XXII. Greenbelt shall be raised including a 7.5 m wide statutory barrier all around the mining lease, reclaimed and rehabilitated areas, around water body, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. Greenbelt shall be developed all along the mine lease area in a phased manner as per the approved mining plan.
- XXIII. Green belt shall be provided as per norms of MoEF & CC, GOI, in consultation with local DFO.
- XXIV. The project authority shall implement suitable water conservation measures including rain water harvesting system to augment ground water resources in the area in consultation with the Regional Director, State Ground Water Board.
- XXV. The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/ procedure to bring into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance of EC conditions and (iii) System of reporting of non-compliance /violation of environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- XXVI. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests, Government of India, New Delhi in advance of 5 years prior to the final mine closure for approval. Mine closure procedure shall be followed as per the approved mining plan.
- XXVII. Depth of water table of the wells located inside the mining area and wells located around the monitoring area shall be monitored regularly.
- XXVIII. CSR activity shall include providing social & welfare measures for the local residents & nearby villages around the mine area. It shall focus on providing water supply and sanitation facility to the nearby government schools around the mine area and maintenance of village roads, ponds, providing solar street lights etc. Funds earmarked for CSR activity shall be used for that purpose only and separate account shall be maintained and report on implementation shall be furnished regularly.

XXIX. The points raised in public hearing and concerns shall be addressed without fail as per action plan submitted to SEIAA.

Conditions for Post Mining / Operation Phase & Entire life of the project:

- i. It is mandatory for the project proponent to furnish to the SEIAA, Half yearly compliance report in hard and soft copies on 1st June and 1st December of each calendar year in respect of the conditions stipulated in the prior Environmental clearance, and also before commencement of production.
- ii. No expansion or modernization in the project shall be carried out without prior approval of the SEIAA-TN. In case of any deviations or alterations in the project proposal from those submitted to this Authority for clearance, a fresh reference shall be made to the SEIAA-TN to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.
- iv. The implementation of the project vis-à-vis environmental action plans shall be monitored by the TNPCB at Chennai/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies regularly.
- v. Data on ambient air, stack and fugitive emissions shall be regularly submitted online to the TNPCB and Central Pollution Control Board as well as hard copy once in six months and display data on RSPM, SO₂ and NO_x outside the premises at the appropriate place for the general public.
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Mines Act.
- vii. The first aid facilities in the occupational health centre shall be strengthened and the medical records of each employee should be maintained separately
- viii. The overall noise levels in and around the mining area shall be kept well within the standards prescribed for by providing noise control measures on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under E(P) Act 1986 viz. 55 dBA (day time) and 45 dBA (night time).
- ix. The project proponent shall regenerate / preserve water body located at about 5.0 km from the propose site at its own expenses. The project proponent shall also


MEMBER SECRETARY
SEIAA-TN

develop village ponds in addition and shall ensure that the existing ponds in and around 5.0 Km radius are well maintained.

- x. Hydro geological study of the area shall be reviewed annually and report submitted to the Authority. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the operation of the Mining activity.
- xi. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.
- xii. Environmental Clearance is being issued without prejudice to the action initiated under Environment (Protection) Act, 1986 or any court case pending or any other court order shall prevail.
- xiii. The SEIAA/SEAC reserves the right to add any further condition(s) on receiving reports from the project authority. The above condition shall be monitored by the TNPCB.
- xiv. The SEIAA, TN may revoke or suspend the Environmental clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, 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.
- xvi. 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.
- xvii. 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


MEMBER SECRETARY
SEIAA-TN



Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 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.

- xviii. This clearance is issued with respect to only environmental considerations and it does not imply that SEIAA approved the way by which lease is granted to the project. While granting lease, the concerned authority shall ensure compliance of Relevant rules, Regulations, Notification, Government resolutions, circulars, Judgments/Orders of Hon'ble Court and NGT, etc.
- xix. 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.


MEMBER SECRETARY
SEIAA-TN

Copy to :

1. The Additional Chief Secretary to Government, Environment, Climate Change and Forests Department, Tamil Nadu.
2. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai - 32.
5. The Director General of Forest, Integrated Regional Office, MoEF & CC, Shastri Bhavan, Nungambakkam, Chennai.
6. Monitoring Cell, I A Division, Ministry of Environment Forest & Climate Change, Indira Paryavaran Bhavan, New Delhi - 110 003.
7. The Commissioner of Geology and Mining, Guindy, Chennai.
8. The District Collector, Dharmapuri District.
9. Stock File.