

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

APPEAL NO. 45 OF 2024 (SZ)

M/s.Stone Trust Enterprises,

Rep. by its Partner Mr.K.P.Mithun Kumar,

7/4, 8th Street, Nandanam Extension,

Chennai – 600 035.

Email: stonetrust.semmedu@gmail.com & Phone No. 9962084848

... Appellant

Versus

1. Ministry of Environment, Forest and Climate Change

(MoEF & CC), Rep. by its Secretary (EF & CC),

Indira Paryavaran Bhawan,

Jorbagh Road, New Delhi – 110 003

Email: secy-moef@nic.in & Phone No. +91-11-20819308

2. State Level Environment Impact Assessment Authority (SEIAA),

Rep. by its Member Secretary,

3rd Floor, Panagal Maaligai,

No.1, Jeenis Road,

Saidapet, Chennai – 600 015.

Email: seiaamstn@gmail.com & Phone No. 044-24359973

3. State Level Expert Appraisal Committee (SEAC),
Rep. by its Chairman,
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet, Chennai - 600 015.
Email: seacchairmantn@gmail.com & Phone No. 044-24359973

... Respondents

INDEX

COMPILATION III

Sl. No.	Date	Description of Documents	Annexure	Page Nos.
1	-	General Abstract of ECS issued to various quarries, around 10KM radius to the project site of the Appellant	A83	634
2	-	Abstract with respect to File No.5036 (Black Granite) - B2 Category	A84	635 - 636
3	11.07.2016	Environmental Clearance issued by the SEIAA, to Tmt.R.Shanthi, Prop.Esteem Granites	A85	637 - 644
4	-	Abstract with respect to File No.5704 (Black Granite) - B2 Category	A86	645
5	04.03.2018	Environmental Clearance issued by the DEIAA, to Mr.R.K.Ramesh	A87	646 - 655
6	-	Abstract with respect to File No. 7166 (Black Granite) - B2 Category	A88	656
7	02.06.2020	Environmental Clearance issued by the SEIAA, to Thiru.H.Karthil	A89	657 - 673

8	-	Abstract with respect to File No. 6186 (Black Granite_ - B1 Category	A90	674
9	08.06.2018	Environmental Clearance issued by the SEIAA, to ThiruA.Abdul Salam	A91	675 - 698
10	-	Abstract with respect to File No. 3888 (Black Granite) - B1 Category	A92	699
11	09.08.2023	Terms of Reference issued by the SEIAA to M/s. Tamil Nadu Minerals	A93	700 - 723
12	-	Abstract with respect to File No. 5512 (Black Granite) - B2 Category	A94	724 - 725
13	21.11.2023	Environmental Clearance issued by the SEIAA, to M/s. Gem Granites Private Limited	A95	726 - 760
14	-	Abstract with respect to File No. 10381 (Black Granite) - B2 Category	A96	761 - 762
15	14.02.2024	Environmental Clearance issued by the SEIAA, to M/s. Mani Omega Granites Private Limited	A97	763 - 796
16	-	Abstract with respect to File No. 10160 (Black Granite) - B2 Category	A98	797 - 798
17	22.03.2024	Environmental Clearance issued by the SEIAA, to M/s. Tamil Nadu Minerals Limited	A99	799 - 819

Dated at Chennai on this 8th day of May, 2024


COUNSEL FOR APPELLANT

**ENVIRONMENTAL CLEARANCES ISSUED TO THE MINING PROJECT SITES ,
AROUND 10KMS RADIUS TO THE PROJECT SITE OF THE APPLICANT
SUBJECT TO COMPLIANCE WITH MITIGATION MEASURES BY THE DEIAA,SEIAA-TN**

ABSTRACT

SL. NO	DATE	FILE NO.	E.C.GRANTED DETAILS
01	11.07.2016	5036	The Environmental Clearance was granted to the proponent Tvl, Esteem Granites(Prop.R.Shanthi), for mining Black Granite Quarry over an extent of 1.00.0ha of Patta Lands in S.F.No. 407/3(P)& etc, Siruvalai Village, Vikravandi Taluk(Previously Villupuram Taluk) . This Mine site is located about 2.5kms distance from the applicant's proposed site.
02	04.02.2018	5704	The Environmental Clearance was granted to the Thiru.R.K.Ramesh, for mining Black Granite Quarry over an extent of 1.80.0ha of Patta Lands in S.F.Nos. 538/4 & etc, Adhanur Village, Vikravandi Taluk. This Mine site is located about 6.5kms distance from the applicant's proposed site.
03	02.06.2020	7166	The Environmental Clearance was granted to Thiru,H.Karthik, for mining Black Granite Quarry over an extent of 1.40.5ha of Patta Lands in S.F.Nos. 204/1A & etc, Kasbakaranai Village, Vikravandi Taluk . This mine site is located about 7kms distance from the applicant's proposed site.
04	26.09.2022	6186	The Environmental Clearance(TOR) is granted to the proponent Thiru.Abdul Salam for mining Black Granite Quarry over an extent of 1.02.5ha of patta Land in S.F.No.156/2 & etc.,, Siruvalai Village, Vikravandi Taluk . This Mine was operating from 2011 and the same site is located about 3.2kms from the applicant's site.
05	09.08.2023	3888	The Environmental Clearance(TOR) is granted to the proponent Tvl.TAMIN, for mining Black Granite Quarry over an extent of 20.28.0ha of Govt Land in S.F.No.170/1(P), Siruvalai Village, Vikravandi Taluk . This Mine is operating from 1995 and the same site is located about 2.5kms from the applicant's proposed site.
06	24.08.2023	5512	The Environmental Clearance was granted to the proponent Tvl.Gem Granites(P)Ltd, for mining Black Granite Quarry over an extent of 2.41.5ha of Patta Lands in S.F.Nos. 4/4B& etc, Vengamur Village, Vikravandi Taluk. This Mine site is located about 6kms distance from the applicant's proposed site.
07	21.11.2023	10381	The Environmental Clearance was granted to Tvl, Mani Omega Granites(P)Ltd, for mining Black Granite Quarry over an extent of 1.83.5ha of Patta Lands in S.F.Nos. 12/1(P)& etc, Vengamur Village, Vikravandi Talluk. This Mine site is located about 6kms distance from the applicant's proposed site.
08	22.03.2024	10160	The Environmental Clearance is granted to the proponent Tvl.TAMIN, for mining Black Granite Quarry over an extent of 4.14.8ha of Govt Land in S.F.No.104/1A(P), Udaiyanatham Village, Vikravandi Taluk . This Mine is operating from 1995 and the same site is located about 7.5kms distance from the applicant's proposed site.

Note: The mining sites mentioned above are situated within a radius of approximately 10 kilometers from the proposed site of the applicant. Additionally, some quarries in the vicinity have been in operation for more than decades.

01.FILE NO: 5036

EC GRANT DATE – 11.07.2016
“B2” CATEGORY - BLACK GRANITE QUARRY

PROJECT SITE:

The Environmental Clearance was granted to the proponent Tvl, Esteem Granites (Prop.R.Shanthi), for mining Black Granite Quarry over an extent of 1.00.0ha of Patta Lands in S.F.No. 407/3(P)& etc, **Siruvalai Village, Vikravandi Taluk (Previously Villupuram Taluk), Villupuram District, Tamilnadu**

ENVIRONMENT SETTING:

There is water body situated at a distance of 150M (3 Ha) and 360M (14 Ha) from ML

Area.

**E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINEE REPORT
(APPRAISAL MADE BY SEAC AND ACCEPTED BY SEIAA.)**

1. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighbouring 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.
2. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC.
3. 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
4. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
5. 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.
6. 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.
7. 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.

8. 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.
9. All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full.
10. 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.



Dr. S. KALYANASUNDARAM ,I.F.S.(Retd.)
CHAIRMAN

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY – TAMIL NADU

3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.

Phone No.044-24359974

Fax No. 044-24359975

ENVIRONMENTAL CLEARANCE

Lr. No.SEIAA-TN/F.No.5036/1(a)/ EC.No:3221/2016 dated:11.07.2016

To

Tmt. R. Shanthi
(Prop.Esteem Granites)
No .42/5, Kandasamy Layout
1st Cross
K.K. Road
Villupuram-605402

Sir,

Sub: SEIAA-TN – Proposed **Black Granite** quarry located at S.F.No 407/3 (Part), Siruvalai Village,Villupuram Taluk, Villupuram District- issue of Environmental Clearance – Reg.

Ref: 1. Your Application for Environmental Clearance dt: 02.02.2016
2. Minutes of the 77th SEAC held on 08.07.2016
3. Minutes of the SEIAA meeting held on 11.07.2016

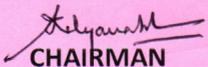
Details of Minor Mineral Activity:-

This has reference to your application first 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.

1	Name of Project Proponent and address	Tmt. R. Shanthi (Prop.Esteem Granites) No .42/5, Kandasamy Layout 1st Cross K.K. Road Villupuram-605402
2	Location of the Proposed Activity	
	Survey Number	407/3 (Part)
	Latitude and Longitude	12°02'03"N to 12°02'07"N 79°25'58"E to 79°26'04"E
	Village	Siruvalai

Kalyan
CHAIRMAN
SEIAA-TN

	Taluk	Villupuram
	District	Villupuram
3	Proposed Activity	
	i. Minor mineral	Black Granite
	ii. Mining Lease Area	1.00.0 Ha
	iii. Approved quantity	4514 cu.m of Black Granite
	iv. Depth of Mining	27 m
	v. Type of mining	Opencast Semi Mechanized Mining Method
	vi. Category(B1/B2)	B2
	vii. Precise area communication	G.O(3D).No.123,Industries(MMB1)Department, dated: 22.11.2005
	viii. Mining plan approval	Director of Geology and Mining Lr.No. 2450/MM5/2005, dated: 14.11.2005
	ix. Mining lease period	5 Years
4	Whether Project area attracts any General conditions specified in the EIA notification, 2006 as amended:-	Not attracted. Affidavit furnished
5	Man Power requirement per day:	33 Employees
6	Utilities	
	i. Source of Water :	Water vendors/Existing Borehole
	ii. Quantity of Water Requirement in KLD:	
	a. Domestic	0.3KLD
	b. Industrial	} 0.7KLD
	c. Green Belt & Dust Suppression	
	iii. Power Requirement:	
	a. Domestic Purpose	TNEB
	b. Industrial Purpose	28896 Liters of HSD
7	Cost	
	i. Project Cost	Rs.27.50 Lakhs
	ii. EMP Cost	Rs.2.55 Lakhs
8	Public Consultation:-	Not required as per O.M. dated 24.12.2013 of MoEF, Gol.
9	Date of Appraisal by SEAC:-	08.07.2016
	Agenda No:	77-01
10	Date of Review/Discussion by SEIAA and the Remarks:-	
	The proposal was placed before the SEIAA in its 179 th Meeting held on 11.07.2016 and the Authority after careful consideration, decided to grant environmental clearance to the said project Mining of Black Granite to terms and conditions stipulated under the provisions of Environment Impact Assessment Notification, 2006 as amended.	
11	Validity:	
	The Environmental Clearance will be coterminous with the mine lease period or limited to a maximum period of 5 Years from the date of issue whichever is earlier.	


CHAIRMAN
SEIAA-TN

Conditions to be Complied before commencing mining operations:-

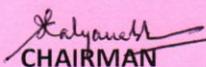
1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - I. The project has been accorded Environmental Clearance.
 - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - III. Environmental Clearance may also be seen on the website of the SEIAA.
 - IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.
2. The applicant has to obtain land use classification as industrial use before issue/renewal of mining lease.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 15 mts. From any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying shall be 2m above the ground water table /approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.

Kalyanesh
CHAIRMAN
SEIAA-TN

15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. The explosives shall be stored at site as per the conditions stipulated in the permits issued by the licensing Authority.
19. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
20. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
21. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, GoI on 16.11.2009.
22. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
23. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicles and other equipment
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
24. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoE&F, GoI to control noise to the prescribed levels.
25. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
26. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
27. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
28. The following measures are to be adopted to control erosion of dumps:-
 - i. Retention/ toe walls shall be provided at the foot of the dumps.
 - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.

29. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.
30. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
31. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
32. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
33. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
34. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
35. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
36. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the mining lease period of this application.
37. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500m radius from the periphery of the quarry site
38. Ground water quality monitoring should be conducted once in 3 Months
39. Transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village road.
40. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF , GOI.
41. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF , GOI..
42. Bunds to be provided at the boundary of the project site.

43. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
44. At least 10 Neem trees should be planted around the boundary of the quarry site.
45. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
46. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
47. The Project Proponent shall provide solar lighting system to the nearby villages
48. The Project Proponent shall comply with the mining and other relevant rules and regulations where ever applicable.
49. Rainwater shall be pumped out Via Settling Tank only
50. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
51. As per MoEF&CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild Life angle including clearance from standing committee of the National Board for Wild life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.
52. 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 monitored by the District Authorities.
53. Safety equipments to be provided to all the employees.
54. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai
55. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
56. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
57. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
58. The Proponent shall furnish the data obtained from the Public Works Department regarding the details of Ground Water table in the quarry site.
59. 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.
60. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
61. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
62. The EC is valid only if the scheme of the mining plan is approved by the Commissioner of Geology & Mining or any officers nominated on his behalf.
63. If there is any change in the proposal of production or handling the waste amendment has to be submitted to SEIAA for further approval.
64. This EC is approved as per the G.O.No. 79 & Rule 41 & 42 of Tamil Nadu Mining Mineral Concession Rule 1959.

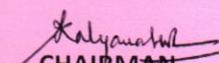

CHAIRMAN
SEIAA-TN

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 for Establishment from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. 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.


CHAIRMAN
SEIAA-TN

16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA,TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining 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, 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.
22. Any other conditions stipulated by other Statutory/Government authorities shall be complied
23. Any appeal against this environmental clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


CHAIRMAN
 SEIAA-TN

Copy to:

1. The Secretary, Ministry of Mines, Government of India, ShastriBhawan, New Delhi.
2. The Principal Secretary, Environment and Forests Department, Government of Tamil Nadu, Tamil Nadu.
3. The Additional Chief Secretary, Industries Department, Government of Tamil Nadu, 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, PariveshBhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-32
7. The District Collector, Villupuram District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. EI Division, Ministry of Environment & Forests, ParyavaranBhawan, New Delhi.
10. Spare.

02.FILE NO.: 5704

EC GRANT DATE – 04.02.2018
“B2” CATEGORY - BLACK GRANITE QUARRY

PROJECT SITE:

The Environmental Clearance is granted to the proponent Thiru.R.K.Ramesh, for mining Black Granite Quarry over an extent of 1.80.0ha of Patta Lands in S.F.Nos. 538/4 & etc, **Adhanur Village, Vikravandi Taluk ,Villupuram District, Tamilnadu**

ENVIRONMENT SETTING:

There is a NATURAL STREAM COURSE (Water body) in S.F. Nos. 538/1 on the North-Western corner of the ML area.

E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINEE REPORT (APPRAISAL MADE BY DEAC AND ACCEPTED BY DEIAA.)

1. A safety distance of 50M should be allowed and maintained for the stream course in S.F. No. 538/1 on the north-western corner of the ML Area. (As per G.O. (3D) No. 9 dated 22.02.2018).
2. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
3. Rainwater getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
4. Rainwater harvesting to collect and utilize the entire water falling in land area should be provided.
5. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous & other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCB.
6. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.

Dr. L. SUBRAMANIAN, I.A.S.,
CHAIRMAN/
DISTRICT COLLECTOR.



District Level Environment Impact
Assessment Authority,
Viluppuram District.

ENVIRONMENTAL CLEARANCE

Lr.No.DEIAA-TN/F.No.5704/EC.No.8/2017, Dated 04.02.2018

To
R.K.Ramesh,
S/o.Ravilla Krishnasamy,
No.11/12, SBI Colony, First Street,
Virugampakkam,
Chennai-600 092.

Sir,

Sub: DEIAA – Proposed Black Granite Quarry - S.F.Nos.538/4, 5, 6, 7,17A, 17B, 18A, 18B, 19, 8A, 8B, 22A, 20 and 21 over an extent of 1.80.0 Hect. in Adhanur Village, Vikiravandi Taluk, Villupuram District by R.K.Ramesh - Grant of Environmental Clearance - Reg.

- Ref:
1. Your Application for Environment Clearance Dated 01.04.2017.
 2. Minutes of the DEAC, 2nd meeting held on 22.9.2017.
 3. Minutes of the DEIAA, 2nd meeting held on 29.12.2017.

Details of Minor mineral Activity:-

This has reference to your application first cited. The proposal is for obtaining Environmental Clearance for minor minerals mining / quarrying projects falling under category 'B2' based on the particulars furnished in your application as shown below:

Ammin
5/2/2018
CHAIRMAN
DEIAA

4/10

1.	Name of Project Proponent and address	:	R.K.Ramessh, S/o.Ravilla Krishnasamy, No.11/12, SBI Colony, First Street, Virugampakkam, Chennai-600 092.
2.	Location of the Proposed Activity	:	
	Survey Number	:	538/4, 5, 6, 7, 17A, 17B, 18A, 18B, 19, 8A, 8B, 22A, 20 & 21
	Latitude and Longitude	:	12°00'35.02"N to 12°00'39.56"N 79°27'50.06"E to 79°27'56.16"E
	Village	:	Adhanur
	Taluk	:	Vikiravandi
	District	:	Viluppuram
3.	Proposed Activity		
	i. Minor mineral	:	Black Granite
	ii. Mining Lease Area	:	1.80.0 hecets.
	iii. Approved quantity	:	3187 Cu.m. of Black Granite
	iv. Depth of quarrying	:	18 m.
	v. Type of quarrying	:	Open cast semi-mechanised
	vi. Category (B1/B2)	:	"B2" category.
	vii. Precise Area Communication	:	Govt. letter No.14382/MMB.2/2016-1&2 dated 20.12.2016 & 13.02.2017.
	viii. Mining Plan approval	:	Commissioner of Geology and Mining, Chennai Lr.No.5340/MM5/2016 dated 15.03.2017.
	ix. Quarrying lease period	:	20 Years
4.	Whether Project area attracts any general conditions specified in the EIA notification, 2006 as amended:-	:	-
5.	Man Power requirement per day	:	30 Nos.


 5/2/2018 2/10
 CHAIRMAN
 DEIAA

6.	Utilities		
	i.	Source of Water	: Water vendors / Existing borehole
	ii.	Quantity of Water Requirement in KLD:	
		a. Domestic	: 0.3 KLD
		b. Industrial	: 0.4 & 0.3 KLD
		c. Green Belt & Dust Suppression	: 0.4 & 0.3 KLD
	iii.	Power requirement	
		a. Domestic purpose	: Petroleum Fuel is to be used for operating machineries and vehicles during quarrying process. Electricity will be used only for mine lighting and office purposes.
		b. Industrial purpose	: Electricity will be used only for mine lighting and office purposes.
7.	Cost		
	i.	Project Cost	: Rs. 44,00,000/-
	ii.	EMP Cost	: Rs.2,65,000/-
8.	Public Consultation:-		: Not required as per O.M. dated 24.12.2013 of MoEF, GOI
9.	Date of Appraisal by DEAC:		: 22.9.2017 2 nd Meeting
10.	Date of review / discussion by DEIAA and the Remarks:-		
	<p>The proposal was placed before the DEIAA in its DEIAA, 2nd meeting held on 29.12.2017 and the Authority after careful consideration, decided to grant Environmental Clearance to the said project for Mining of "Black Granite" subject to the terms and conditions stipulated under the provisions of Environment Impact Assessment Notification, 2006 as amended.</p>		
11.	Validity:		
	<p>This Environmental Clearance is granted for Mining of "Black Granite" for the production quantity of 3187 cu.m. for a period of "5 Years" from the date of execution of Lease Deed.</p>		


 5/2/2018
 CHAIRMAN
 DEIAA

3/10

Conditions to be Complied before commencing mining operations:-

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - I. The project has been accorded Environmental Clearance.
 - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - III. Environmental Clearance may also be seen on the website of the DEIAA.
 - 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 DEIAA.
2. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
3. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
4. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
5. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
6. The proponent shall ensure that First Aid Box is available at site.
7. The excavation activity shall not alter the natural drainage pattern of the area.
8. The excavated pit shall be restored by the project proponent for useful purposes.
9. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
10. The quarrying operation shall be restricted between 7AM and 5 PM.
11. 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.
12. A minimum distance of 15 mts. from any civil structure shall be kept from the periphery of any excavation area.
13. Depth of quarrying shall be 2m above the ground water table /approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.


5/2/2018
CHAIRMAN
DEIAA

H/10

14. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
15. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, GoI on 16.11.2009.
16. The following measures are to be implemented to reduce Air Pollution during transportation of mineral]
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
17. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicles and other equipment
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kms to prevent undue noise from empty trucks.
18. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoE&F, GoI to control noise to the prescribed levels.
19. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
20. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
21. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
22. The following measures are to be adopted to control erosion of dumps:-
 - i. Retention/ toe walls shall be provided at the foot of the dumps.
 - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
23. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.
24. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.


5/2/2018
CHAIRMAN
DEIAA

3/10

25. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
26. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
27. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
28. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
29. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
30. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the mining lease period of this application.
31. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500m radius from the periphery of the quarry site.
32. Ground water quality monitoring should be conducted once in 3 Months.
33. Transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village road.
34. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI..
35. Bunds to be provided at the boundary of the project site.
36. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place and progress report shall be submitted once in 3 months.

Jmmir
5/2/2018
CHAIRMAN
DEIAA

670

37. At least 50 Neem trees should be planted around the boundary of the quarry site.
38. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
39. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity.
40. The Project Proponent shall provide solar lighting system to the nearby villages.
41. The Project Proponent shall comply with the mining and other relevant rules and regulations where ever applicable.
42. Rainwater shall be pumped out Via Settling Tank only.
43. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
44. As per MoEF&CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild Life angle including clearance from standing committee of the National Board for Wild life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.
45. 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 monitored by the District Authorities.
46. Safety equipments to be provided to all the employees.
47. Safety distance of 50m has to be provided in case of railway, reservoir, canal / odai.
48. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
49. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
50. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
51. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. The Environmental norms shall be monitored by the District Environmental Engineer, Tamil Nadu Pollution Control Board, Viluppuram.

7/10


5/2/2018
CHAIRMAN
DEIAA

54. Periodical medical examination of the quarry workers should be carried out by a registered medical practitioner and the report should be filed in the quarry office in a separate file and copy should be sent to the Deputy Director, Health Services, Viluppuram.
55. Free silica test should be conducted and reported to TNPCB Department of Geology and Mining and Regional Director MoEF, GOI.
56. Drilling and blasting shall be done only either by licensed explosives agent or by the proponent after obtaining required approvals from competent authorities.
57. The explosives shall be stored at site as per the condition stipulated in the permits issued by the licensing authority.
58. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
59. A study has to be conducted to assess the optimum blast parameter and blast design to keep the vibration limits less than prescribed levels and only such design and parameter should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
60. The applicant has to obtained land use classification as industrial use before issue / renewal of mining lease.
61. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.

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 for Establishment 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 DEIAA, Viluppuram District, 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.

q/r

5/2/2018
CHAIRMAN
DEIAA

- 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 beam shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 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) 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.
- 12) Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
- 13) The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
- 14) 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.
- 15) 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.
- 16) 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.
- 17) The DEIAA, Viluppuram District may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
- 18) The DEIAA, Viluppuram District 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 DEIAA, Viluppuram District that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.

Jmmir
5/2/2018
CHAIRMAN
DEIAA

9/10

- 19) 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.
- 20) 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, 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.
- 21) Any other conditions stipulated by other Statutory/Government authorities shall be complied.
- 22) 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.
- 23) All personal shall be provided with protective respiratory devices including safety shoes, masks, gloves etc.,. Supervisor people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contraction due to exposure to dust and take corrective measures if needed.

10/10


 5/2/2018
 CHAIRMAN
 DEIAA

Copy to:-

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary, Environment and Forest Department, Government of Tamil Nadu, Tamil Nadu.
3. The Principal Secretary to Government, Industries Department, Government of Tamil Nadu, 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, Tamil Nadu Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex East Arjun Nagar, New Delhi 110 032.
6. The Chairman Tamil Nadu Pollution Control Board, 76 Mount Salai Guindy, Chennai-32.
7. The Chairman, SEIAA, Panagal Building, Chennai.
8. The Commissioner of Geology and Mining, Guindy, Chennai-32
9. E1 Division, Ministry of Environment and Forests Paryavaran Bhawan, New Delhi.
10. Spare.

03.FILE NO: 7166

EC GRANT DATE – 02.06.2020
“B2” CATEGORY - BLACK GRANITE QUARRY

PROJECT SITE:

The Environmental Clearance is granted to the proponent Thiru,H.Karthik, for mining Black Granite Quarry over an extent of 1.40.5ha of Patta Lands in S.F.Nos. 204/1A & etc, **Kasbakaranai Village, Vikravandi Taluk ,Villupuram District, Tamilnadu**

ENVIRONMENT SETTING:

- # *There is a Odai (Waterbody)situated in S.F. Nos. 206/2 at distance of 31.8M on the North side and a safety distance of 50M has been provided.*
- # *There is a tank situated at a distance of 570M on the Eastern side.*

E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINE REPORT (APPRAISAL MADE BY SEAC AND ACCEPTED BY SEIAA.)

1. Rainwater getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow water after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
2. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
3. A Safety distance of 50M has to be provided in case of railway, reservoir, canal/odai.



Dr. JAYANTHI. M, 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.7166/1(a)/EC.No:4217/2020 dated: 02.06.2020

To

Thiru. H. Karthik
No. 37, Gandhi Street
Nehru Nagar East, Civil Aerodrome Post
Coimbatore South
Coimbatore District - 641 014

Sir/Madam,

Sub: SEIAA-TN – Proposed for the Black Granite Quarry over an Extent of 1.40.5Ha in S.F.No. 204/1A, 204/1B, 204/1C, 205/1A, 205/1B, 205/1C, 205/1D, 205/1E, 205/1F, 205/1J, 205/2, 205/5, 205/6D & 205/6J1 at Kasbakaranai Village, Vikravandi Taluk, Villuppuram District by Thiru. H. Karthik - issue of Environmental Clearance – Reg.

Ref: 1. Your Application for Environmental Clearance dated: 03.10.2019
2. Minutes of the 149th SEAC meeting held on 14.03.2020
3. Minutes of the 379th SEIAA meeting held on 02.06.2020

Details of Minor Mineral Activity:-

This has reference to your application first 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.



Tanya
MEMBER SECRETARY
SEIAA-TN

1	Name of Project Proponent and address	Thiru. H. Karthik No. 37, Gandhi Street Nehru Nagar East, Civil Aerodrome Post Coimbatore South Coimbatore District - 641 014
2	Location of the Proposed Activity	
	Survey Number	204/1A, 204/1B, 204/1C, 205/1A, 205/1B, 205/1C, 205/1D, 205/1E, 205/1F, 205/1J, 205/2, 205/5, 205/6D & 205/6J1
	Latitude and Longitude	12° 00' 44.89" N to 12° 00' 50.53" N 79° 27' 59.31" E to 79° 28' 04.22" E
	Village	Kasbakaranai
	Taluk	Vikravandi
	District	Villuppuram
3	Proposed Activity	
	i. Minor mineral	Black Granite
	ii. Mining Lease Area	1.40.5Ha
	iii. Approved quantity	4404 m ³ of Black Granite
	iv. Depth of Mining	12m
	v. Type of mining	Opencast Semi Mechanized method
	vi. Category(B1/B2)	B2
	vii. Precise area communication approved by the Principal Secretary to Government with date	Lr. No.2775/MMB.2/2019-1, dated 07.03.2019
	viii. Mining plan approval by Director of Geology and Mining, Chennai	Rc.No.1332/MM4/2019, Dated: 06.06.2019.
	ix. Scheme of Mining period	5 Years



4	Whether Project area attracts any General conditions specified in the EIA notification, 2006 as amended:-	Not attracted. Affidavit furnished.
5	Man Power requirement per day:	32 Employees
6	Utilities	
	i. Source of Water :	Water Vendors & Existing Borehole
	ii. Quantity of Water Requirement in KLD:	5.6KLD
	a. Domestic & Drinking purpose	1.0 KLD
	b. Green Belt & Dust Suppression	4.6 KLD
	iii. Power Requirement:	
	a. Domestic Purpose	TNEB
	b. Industrial purpose	35232 Liters of HSD
7	Cost	
	i. Project Cost	Rs. 207.75 lakhs
	ii. EMP Cost	Rs. 6.70 lakhs
8	<u>Validity:</u>	
	This Environmental Clearance is granted for the production in 4404 m³ of Black Granite for the period of 5 Years from the date of execution of the mining lease.	

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

I, Thiru. H. Karthik, No. 37, Gandhi Street, Nehru Nagar East, Civil Aerodrome Post, Coimbatore South, Coimbatore District - 641 014, Tamil Nadu state, solemnly declare and sincerely affirm that:

I have applied for getting Environmental Clearance to SEIAA, Tamil Nadu for mining lease for mining of Black Granite Quarry over an Extent of 1.40.5Ha in S.F.No. 204/1A, 204/1B, 204/1C, 205/1A, 205/1B, 205/1C, 205/1D, 205/1E, 205/1F, 205/1J, 205/2, 205/5, 205/6D & 205/6J at Kasbakaranai Village, Vikravandi Taluk, Viluppuram District, Tamil Nadu.



Jayar
MEMBER SECRETARY
SEIAA-TN

1. I swear to state and confirm that within 10km area of the mine site, I have applied for Environmental Clearance, none of the following is situated.
 - a. Protected areas notified under the Wild Life (Protection) Act, 1972.
 - b. Critically polluted areas as notified by the central pollution control board constituted under Water (Prevention and Control of Pollution) Act, 1974.
 - c. Eco – Sensitive areas as notified.
 - d. Interstate boundaries within 10km radius from the boundary of the proposed site.
2. I will complete the following Corporate Environment responsibility (CER) activities before commencement of the quarrying activities.

CER Activity	Project Cost (Rs. In Lakhs)	CER Cost 2.0% of project cost (Rs. In Lakhs)
RO water purifier to the tumbur dispensary and schools in Kasbakaranai, development and plantation will be carry out in either side of Kasbakaranai village road also solar lights facility to the village, etc.,	214.45	4.29
Total cost Allocation	214.45	4.29

3. The following quarries are located within the radius of 500m from the periphery of my quarry.

S.No.	Name of the applicant/ Lessee	Name of the Village & S.F.No.	Extent in Hectre	Lease status
1.	Thiru.H.Karthik	204/1A, 204/1B, 204/1C, 205/1A, 205/1B, 205/1C, 205/1D, 205/1E, 205/1F, 205/1J, 205/2, 205/5, 205/6D & 205/6J1at Kasbakaranai Village	1.40.5	Proposed



2.	Thiru.R.K.Ramesh	Adhanur Village 538/4, 5, 6, 7, 17A, 17B, 18A, 18B, 19, 8A, 8B, 22A, 20 &21	1.80.0	G.O. Passed but, not executed
Total			3.20.5	

4. There will not be any hindrance or disturbance to the people during transportation. No villages are enrooted during transportation.
5. There are no approved habitations within 300m radius from the periphery of my quarry.
6. I swear that afforestation will be carried out during the course of mining operation and maintained.
7. The required insurance will be taken in the name of the labourers working in my quarry site.
8. Approach road belongs to us only and no other private patta roads encountered.
9. I will not engage any child labour in my quarry site and I aware that engaging child labour is punishable under the law.
10. All types of safety / protective equipments will be provided to all the labourers working in my quarry.
11. There is no permanent structures, temples, etc., are located within 300m radius from the periphery of my quarry.

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

Details of 500M radius Proposed quarry:

The Project Proponent has submitted a copy of the letter obtained from the Assistant Director, Department of Geology & Mining, Villuppuram District in his letter Rc.No.B/G&M/366/2018 dated: 28.06.2019 has stated that the details of other quarries (Proposed / Existing / Abandoned Quarries) within a radius 500m from the boundary of the proposed quarry site as follows:

Present proposed quarries

S.No.	Name of the applicant/ Lessee	Name of the	Name of the Village & S.F.No.	Extent in	Lease status
-------	----------------------------------	----------------	----------------------------------	--------------	--------------



		Mineral		Hectre	
1.	Thiru.R.K.Ramesh, No.11/12, SBI colony, 1 st Street, Virugambakkam, Chennai-92	Black Granite	Adhanur Village 538/4, 5, 6, 7, 17A, 17B, 18A, 18B, 19, 8A, 8B, 22A, 20 &21	1.80.0	Lease granting order issued. However lease deed has not been executed.

Appraisal by SEAC:-

The project proposal was placed in the 149th SEAC meeting held on 14.03.2020. Based on the presentation made by the proponent and the documents furnished, the SEAC has recommended the proposal to SEIAA for issue of Environmental Clearance subject to the following conditions in addition to the normal conditions:

1. Ground water quality monitoring should be conducted once in every Six months and the report should be submitted to TNPCB.
2. The proponent shall provide the fencing around the boundary of the proposed area and shall furnish the photocopies of the same to TNPCB before commencement of the quarry.
3. After mining is completed, proper levelling should be done by the Project proponent & Environmental Management Plan furnished by the Proponent should be strictly followed.
4. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wild life as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance.
5. The Project Proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which might 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.
6. Proper barrier for reducing the Noise level and to combat the dust pollution shall be established like providing Green Belt along the boundary of the quarrying site, etc. and to prevent dust pollution, suitable working methodology needs to be adopted taking wind direction into consideration.



Taylor
MEMBER SECRETARY
SEIAA-TN

7. The operation of the quarry should no way impact the agriculture activities & water bodies near the project site.
8. Transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village road.
9. The Project Proponent shall comply with the mining and other relevant rules and regulations wherever applicable.
10. 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 monitored by the District Authorities.
11. The Project proponent has to strictly comply the outcome/direction of the Hon'ble NGT, Principle Bench, New Delhi in the 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).
12. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of mining operation.
13. The mine closure plan submitted by the project proponent shall be strictly followed after the lapse of the mine. The district administration should ensure the fully implementation of mine closure plan before release of lease deed.
14. The proponent shall develop adequate green belt with native species on the periphery of the mine lease area before commencement of the mining activity, in consultation with DFO of the concern district/agriculture university.

Discussion by SEIAA and the Remarks:-

The proposal was placed before the SEIAA in its 379th Meeting held on 02.06.2020 and the Authority after careful consideration, decided to grant Environmental Clearance to the said project Mining of Black Granite quarry subject to terms and conditions stipulated under the provisions of Environment Impact Assessment Notification, 2006 as amended and subject to the following conditions in addition to the normal conditions:



Jaya
MEMBER SECRETARY
SEIAA-TN

1. All the condition imposed by the Director of Geology & Mining, Chennai, Rc. No.1332/MM4/2019, dated: 06.06.2019 should be strictly followed.
2. The project proponent shall utilize the CER amount exclusively to carry out installation of R.O.Water purifier in tumbur dispensary and solar lights in to Kasbakaranai Government School for an amount of Rs. 4.29 Lakhs (2% of the project cost) as committed by the proponent as per Office Memorandum of MoEF & CC dated 01.05.2018. The above activity shall be carried out before obtaining CTO from TNPCB.
3. The EMP Cost shall be deposited in a nationalized bank by opening separate account and head wise expense statement shall be furnished to TNPCB with a copy to SEIAA annually.
4. The proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.
5. If there is any change in the production or lease area application for amendment has to be submitted to SEIAA for further approval.

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

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - I. The project has been accorded Environmental Clearance.
 - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - III. Environmental Clearance may also be seen on the website of the SEIAA.
 - IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.
2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.



Jaya
MEMBER SECRETARY
SEIAA-TN

4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying should be as per approved mining plan.
15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.



18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
20. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, GoI on 16.11.2009.
21. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
22. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicles and other equipment
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
 - v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.
23. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
24. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
25. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.



Jay
MEMBER SECRETARY
SEIAA-TN

26. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
27. The following measures are to be adopted to control erosion of dumps:-
- Retention/ toe walls shall be provided at the foot of the dumps.
 - Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
28. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous & other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCB.
29. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
30. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
31. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
32. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.



Jaya
MEMBER SECRETARY
SEIAA-TN

33. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
34. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
35. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
36. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
37. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
38. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
39. Bunds to be provided at the boundary of the project site.
40. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
41. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
42. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
43. The Project Proponent shall provide solar lighting system to the nearby villages.
44. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
45. Safety equipments to be provided to all the employees.
46. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai



Jayal
MEMBER SECRETARY
SEIAA-TN

47. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
48. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
49. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
50. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
51. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
54. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
55. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
56. All the commitment made by the project proponent in the proposal shall be strictly followed.
57. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.




MEMBER SECRETARY
SEIAA-TN

58. The Project proponent has to strictly comply the outcome/direction of the Hon'ble NGT, Principle Bench, New Delhi in the 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).

Part B: General Conditions:

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.



10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.
16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this



Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining 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 Statutory/Government authorities shall be complied.
23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
24. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.


MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary, Environment and Forests Department, Tamil Nadu.



3. The Additional Chief Secretary, 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, PariveshBhawan, 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, Villuppuram District
8. The Commissioner of Geology and Mines,Guindy,Chennai-32
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Spare.



SEIAA
TN



04.FILE NO.: 6186

TOR GRANT DATE – 26.09.2022
“B1” CATEGORY - BLACK GRANITE QUARRY
QUARRY IN OPERATION SINCE 2011

PROJECT SITE:

The Environmental Clearance(TOR) is granted to the proponent Thiru.Abdul Salam, for mining Black Granite Quarry over an extent of 1.02.5ha of Patta Land in S.F.No.156/2&etc,**Siruvalai Village, Vikravandi Taluk ,Villupuram District**, Tamilnadu .This Mine was operated from the year 2011 and applied EC .

ENVIRONMENT SETTING:

The applicant should provide 10 meters safety distance to the Odai (Waterbody)situated on the North side of the lease applied area in S.F. Nos 156/2,157/1, 157/2, 157/3 and 157/4 and should not cause any obstruction to the ODAI.



THIRU A.V. VENKATACHALAM, 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

TERMS OF REFERENCE (ToR)

Lr No.SEIAA-TN/F.No.6186/TOR-479/2018, Dated: 08.06.2018

To

Thiru. A. Abdul Salam
103/22, MKMS Buildings
KK Nager East
Villupuram

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference (ToR) under violation for the Existing Black Granite Quarry over an extent of 1.02.5 Ha at S.F. Nos. 156/2, 157/1, 157/2, 157/3 & 157/4, Siruvalai Village, Vikravandi Taluk, Villupuram District, by Thiru. A. Abdul Salam, under project category – B2 and Schedule S.No. 1(a) – TOR issued for the preparation of EIA report, EMP report, ecological damage assessment, remediation plan, natural resource augmentation and community resource augmentation –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. Your online application No.SIA/TN/MIN/22444/2018,dated:18.03.2018 (Under Violation)
 4. Minutes of the 113th SEAC Meeting held on 05.06.2018
 5. Minutes of the 313th SEIAA Meeting held on 08.06.2018

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

The proponent of Thiru. A. Abdul Salam, submitted application for Terms of Reference on 18.03.2018, in Form-I, Pre- Feasibility report for the Existing Black Granite Quarry over an extent of 1.02.5 Ha at S.F. Nos. 156/2, 157/1, 157/2, 157/3 & 157/4, Siruvalai



[Handwritten signature]
**MEMBER SECRETARY
SEIAA-TN**

Village, Vikravandi Taluk, Villupuram District, Tamil Nadu seeking ToR under the MoEF & CC Notification cited under reference 1nd & 2nd.

The proposal seeking ToR was placed before the 113th SEAC meeting held on 05.06.2018. Based on the document furnished, the Committee observed that the project falls under the category B2 and schedule 1(a) of the EIA Notification, 2006. The SEAC recommends the Terms of Reference for the project for assessment of Ecological damage, remediation plan and natural & community resource augmentation plan to be prepared as an independent chapter in the Environment Impact Assessment report by the Accredited consultant and also with collection and analysis of data for the assessment of ecological damage, preparation of remediation plan and natural & community resource augmentation plan to be done by an Environmental laboratory duly notified under the Environment (Protection) Act, 1986, accredited by NABET or a laboratory of council of Scientific and Industrial research Institutions working in the field of Environment. Three months data relating to the ecological parameters is to be submitted with analysis.

The project proponent besides above has to also submit the No Objection certificate (NOC) from State Mines and Geology Department. The NOC should also indicate whether the mine was operated.

- Without Environmental Clearance (EC) or in excess of quantity approved in EC.
- Without consent to Operate (CTO) or in excess of quantity approved in CTO.
- Without mining plan/scheme of mining or in excess of quantity approved in mining plan/scheme of mining.
- Without Forest clearance
- Any other violation such as excess quantity mined during the mining period to assess the ecological and other damages.

The proposal was considered as recommended by SEAC in 313th SEIAA meeting held on 08.06.2018 and after detailed discussion, the authority decided to issue ToR for considering the mining period from 2018-19 onwards only for the preparation of EIA report along with additional ToR subject to the following:




MEMBER SECRETARY
SEIAA-TN

1. The proponent furnish in affidavit undertaking inter-alia includes commitment of the Project Proponent not to repeat any such violation in future as follows as per MoEF & CC, Office Memorandum No. F.No.3-50/2017-IA.III(Pt.) dated:30.05.2018
“ I/We, the applicant / the Project Proponent, commit to comply with all the statutory requirements and judgments of Hon’ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of the 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 Clearances shall be liable to be terminated forthwith”.
2. The Environment Clearances will not be operational till such time the project proponent complies with all the statutory requirements and the judgment of Hon’ble Supreme Court dated the 2nd August 2017 in writ Petition (Civil) NO .144 of 2014 in the matter of common cause versus Union of India and Ors.
3. State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the project proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon’ble Supreme Court dated 02.08.2017 in the Writ Petition (Civil) No.114 of 2014 in the matter of common Cause Versus Union of India and Ors.
4. Excess quantity mined during the mining period shall be furnished to assess the ecological and other damages from the Department of Mining & Geology.
5. The EIA study report shall provide details of proposed and actual mined quantity for the entire mining plan period
6. The report for green belt developed with necessary photographs.
7. Approved mining scheme
8. The proponent shall spent the CSR/CER fund to the nearby schools in terms of furniture, construction of toilets etc., and submit the proof for the same
9. The proponent shall furnish the photographs for fencing around the project site along with the boundary pillar giving the geo co ordinates.



Additional TOR specified by the SEAC to deal with the violation aspects of the mining projects

SECTION A

As per the MoEF & CC Notification S.O. 1030 (E) dated: 08.03.2018,

1. "The cases of violations will be appraised by the Expert Appraisal Committee at the Central level or State or Union territory level Expert Appraisal Committee constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 with a view to assess that the project has been constructed at a site which under prevailing laws is permissible and expansion has been done which can run sustainably under compliance of environmental norms with adequate environmental safeguards, and in case, where the findings of Expert Appraisal Committee for projects under category A or State or Union territory level Expert Appraisal Committee for projects under category B is negative, closure of the project will be recommended along with other actions under the law.
2. In case, where the findings of the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee on point at sub-paragraph (4) above are affirmative, the projects will be granted the appropriate Terms of Reference for undertaking Environment Impact Assessment and preparation of Environment Management Plan and the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee, will prescribe specific Terms of Reference for the project on assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter in the environment impact assessment report by the accredited consultants, and the collection and analysis of data for assessment of ecological damage, preparation of remediation plan and natural and community resource augmentation plan shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or a environmental laboratory accredited by the National Accreditation Board for Testing and Calibration



Laboratories, or a laboratory of the Council of Scientific and Industrial Research institution working in the field of environment.”

After the appraisal of the project, the SEAC decided that the Para No.2 stated above is applicable to the project. Hence, the proponent is directed to prepare appropriate reports as contained in the Para 2.

While complying with the specific aspects of the MoEF & CC directions as stated in the Para 2 above, the following steps should be followed:

Step 1: Enumerate the aspects of Violation:

- a) The proponent should enumerate the violations as applicable to the project.
- b) Furnish a description of each violation with quantitative and qualitative data.
- c) Violation categories are to be decided taking into consideration the stage at which the project execution stands.

Step 2: Ecological Damage Assessment:

- a) For each aspect of violation enumerated in step (1), identify the resultant environmental damage that may have been caused.
- b) Furnish a description of the environmental damages with quantitative and qualitative data.

Step 3: Remediation Plan:

- a) For the Environmental damage(s) identified in the step (2) above, prepare the remediation plan for the each or combination of damages.
- b) The remediation plan should essentially consists of problem statement, target to be achieved (quantity), standards, technology/procedure for remediation, equipment and machinery to be used, time schedule and remediation cost(direct and indirect cost, capital as well as O&M costs).

SECTION B

1. Natural resource Augmentation:

- a) The resources that should be considered for augmentation should essentially consist of land, biota, air, water and other resources as applicable.



b) Proponent may choose one or more of the resource augmentation as applicable and provide a description of the augmentation proposal in detail for each resource.

c) The proponent should also furnish the cost for each augmentation scheme.

2. Community resource Augmentation:

a) The proponent should prepare a plan of action for addressing the needs of the community in terms of resources in the sectors of education, health and sports primarily and other such resources as applicable to the community in the vicinity of the project.

b) The community resource augmentation plan should consist of rehabilitation of houses and people, budget allocation and time schedule for completing the activity.

SECTION C

The proponent should prepare content for the ecological damage assessment, remediation plan, natural resource augmentation and community resource augmentation separately in a chapter and include in the EIA / EMP report.

SECTION D

a) After the appraisal of the EIA / EMP report submitted by the proponent, the SEAC will make a judgement of the quality of the content in the EIA / EMP report specifically with reference to the chapter covering the ecological damage assessment, remediation plan, natural resource augmentation and community resource augmentation.

b) In the judgement of SEAC, if the quality of the content in the chapter is not satisfactory, the SEAC may direct the proponent to further revise the chapter and resubmit the EIA/EMP report.

c) If SEAC concludes that the technical part is satisfactory and the costing aspect is not satisfactory then the SEAC may revert to legal provisions, MoEF & CC guidelines and similar expert committee recommendations for finalizing the cost aspects or the SEAC may use its own expertise and experience in finalizing the cost.



SECTION E

The proponent is directed to furnish data as per the questionnaire appended in Annexure I. It will help the SEAC in arriving the ecological damage and the associated cost.

SECTION F

In compliance with the Supreme Court order stated in MoEF & CC letter F.No. 3-50/2017 IA.III-pt dated: 05th January 2018, the proponent is required to submit the No Objection Certificate obtained from the Department of Geology and Mining, Government of Tamil Nadu regarding payment of 100% cost of illegally mined mineral under section 21(5) of MMDR Act 1957 which would account for mining operations in violation of the following:

- a) Without Environmental Clearance (EC), or in excess of the quantity approved in EC
- b) Without Consent to Operate (CTO) or in excess of the quantity approved in CTO and
- c) Without mining plan/scheme of mining or in excess of the quantity approved in mining plan / scheme of mining
- d) Without Forest Clearance
- e) Any other violation

List out the details of reserve forest and wildlife sanctuary nearby the project site (the details should also include other districts which are nearby the project site) and also furnish the detail of distance between the project site and reserve forests/wildlife sanctuary.

Whether the project site attracts the HACA clearance? If so, also furnish the HACA clearance for the mining from the competent authority.

The proponent is instructed to fill in the form contained in **Annexure 1** to work out the details of the ecological damage during the violation period.



A. STANDARD TERMS OF REFERENCE

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or

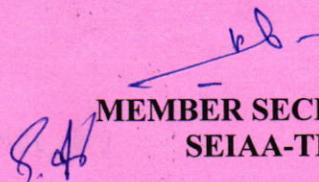



MEMBER SECRETARY
SEIAA-TN

stakeholders at large, may also be detailed in the EIA Report.

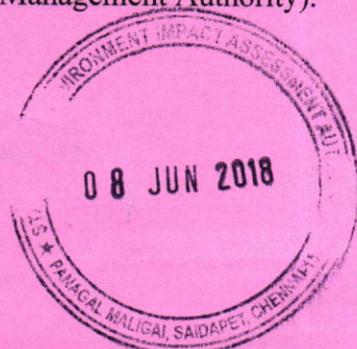
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be

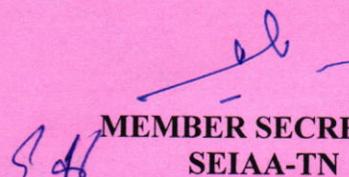



MEMBER SECRETARY
SEIAA-TN

given.

- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).




MEMBER SECRETARY
SEIAA-TN

- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of

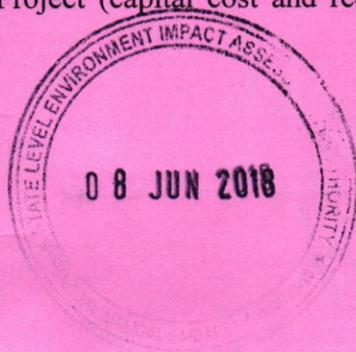


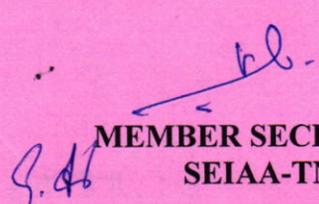
- water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
 - 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
 - 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
 - 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
 - 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
 - 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
 - 32) Impact on local transport infrastructure due to the Project should be indicated. Projected



increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards




MEMBER SECRETARY
SEIAA-TN

implementation of EMP should be clearly spelt out.

- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the



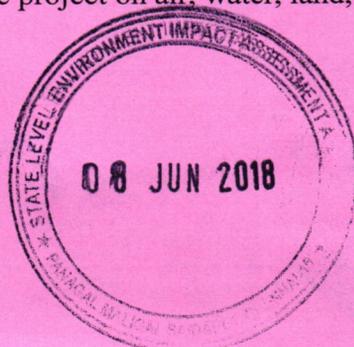
Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

- 1) Project name and location (Village, District, State, Industrial Estate (if applicable).
- 2) Products and capacities. If expansion proposal then existing products with capacities and reference to earlier EC.
- 3) Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- 4) Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
- 5) Measures for mitigating the impact on the environment and mode of discharge or disposal.
- 6) Capital cost of the project, estimated time of completion.
- 7) Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt/ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
- 8) Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
- 9) Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- 10) Likely impact of the project on air, water, land, flora-fauna and nearby population



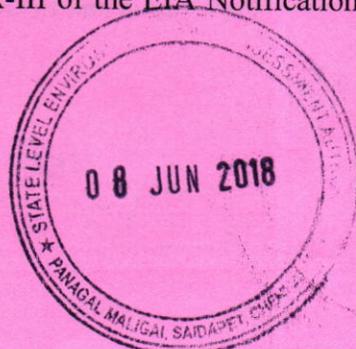
S. S. S.
MEMBER SECRETARY
SEIAA-TN

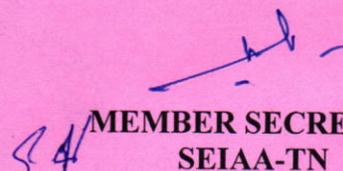
- 11) Emergency preparedness plan in case of natural or in plant emergencies
- 12) Issues raised during public hearing (if applicable) and response given
- 13) CER plan with proposed expenditure.
- 14) Occupational Health Measures
- 15) Post project monitoring plan

Besides the above, the below mentioned **general points** should also be followed:-

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Copy of permission related to Port facility, Desalination plant, wind mill /solar power plant from competent Authority.
- d. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- e. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- f. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J - 11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010 , 28th June 2010 , 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.

- After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points,

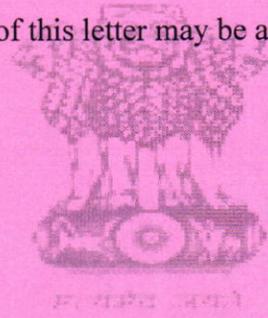



MEMBER SECRETARY
SEIAA-TN

the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

- The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance
- The TORs prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

The receipt of this letter may be acknowledged.



S. H.
8/6/18

MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Principal Secretary to Government, Environment & Forests Dept, Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
2. The Chairman, Central Pollution Control Board, PariveshBhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. The APCCF (C), Regional Office, Ministry of Environment & Forest (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungampakkam, Chennai -34.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests, ParyavaranBhavan, CGO Complex, New Delhi 110003
6. Stock File.



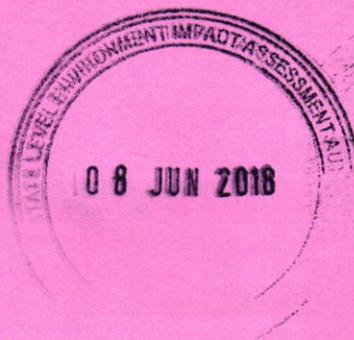
Annexure 1Additional information for considering EC for mining projects

S.No.	Details to be provided	Page no.
1)	Name of the project lease & owner	
2)	Lease Extent	
3)	Lease Validity	
4)	Approved Mining Plan/Scheme – Review a) Specify whether DSR is provided (applicable in case of minor minerals only)	
5)	Specify - Nature and type of violation	
	I. Without EC or in excess of quantity approved in EC	
	II. Without CTO or in excess of quantity approved in CTO	
	III. Without mining plan/Scheme of mining or in excess of quantity approved in Mining plan/Scheme of mining.	
	IV. Without forest Clearance	
	V. Any other violation	
6)	Violation period	
	I. Number of months	
	II. Number of Years	
7)	Exploitation/Excavation quantity- Reserves proved through exploration by drilling	
8)	Give details of production from the date of execution of the lease deed / since 1994	



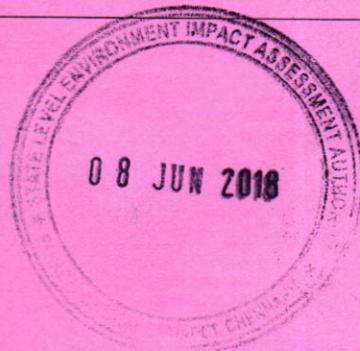
MEMBER SECRETARY
SEIAA-TN

Year and quantity	2010-11*		2011-12*		2012-13*	
	Planned	Actual	Planned	Actual	Planned	Actual
Ore/mineral /granite blocks (tonnes)						
Waste (tonnes/cu. m)						
* year of mining operation						
9)	Quantity mined out during the violation period & if, yes indicate the violated quantity, in term of % of consented quantity.					
Year and quantity mined out during the violation period	2010-11		2011-12		2012-13	
	Planned	Actual	Planned	Actual	Planned	Actual
Ore/mineral/g ranite blocks (tonnes)						
Waste excavation (tonnes/cu.m)						
10)	State illegal mining/encroachments outside the lease boundary? Percentage of quantity mined out outside the lease boundary.					
11)	Method of working					
	I. Category type: (a) Mechanised (b) Semi – Mechanised (c) Manual					
	II. Construction and design of haul roads					



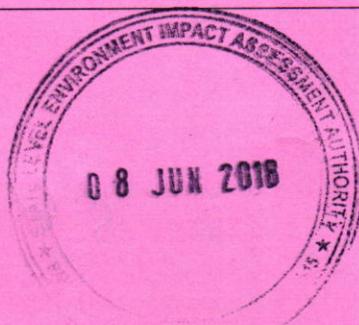
S. A.
MEMBER SECRETARY
SEIAA-TN

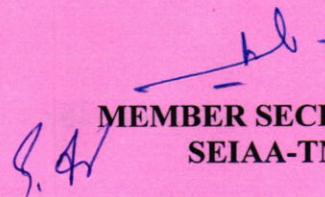
	<p>a) Dimension as per the statutory requirements which were followed or otherwise</p> <p>b) Number of vehicles plying on the main haul roads inside the mine and the approach road to the pit located outside the mine, if any.</p> <p>c) Are any measures taken to minimise fugitive dust generated form mine haul roads? Does it comply with the CPCB/PCB Guidelines?</p>										
	<p>d) Is there a possibility that air pollutants emitted from the project area that do not comply with air quality standards as per CPCB/PCB?</p>										
12)	<p>Mechanized / Semi – Mechanized Method of Mining</p> <p>(i) Number of loading / excavating equipments as per approved mining plan and capacity.</p> <p>(ii) Number of loading / excavating equipments actually being deployed and capacity.</p> <p>(iii) Type and number of transporting equipments.</p> <p>(iv) Type of transporting system used – (a) trucks (b) Any other mode</p> <p>(v) Capacity and Number of trucks used as per approved mining plan</p> <p>(vi) Capacity and Number of trucks used actually in the mine.</p> <p>(vii) Number and capacity of loading equipments and trucks used not in line with approved mining plan.</p> <table border="1"> <thead> <tr> <th></th> <th>Capacity (m³)</th> <th>Numbers</th> </tr> </thead> <tbody> <tr> <td>Excavator</td> <td></td> <td></td> </tr> <tr> <td>Trucks</td> <td></td> <td></td> </tr> </tbody> </table> <p>(viii) Impact of excess deployment of loading equipments (excavators) and transporting equipments on environment.</p> <p>(a) Air pollutants</p>		Capacity (m ³)	Numbers	Excavator			Trucks			
	Capacity (m ³)	Numbers									
Excavator											
Trucks											



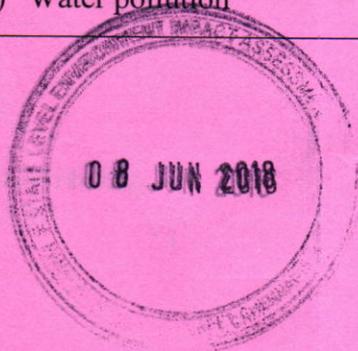
[Signature]
MEMBER SECRETARY
SEIAA-TN

	(b) Water Quality (c) Land Quality (d) Noise level	
	(ix) Does the deployment of loading equipments (excavators) and trucks fulfil the statutory requirements as per MMR 1961, with respect to the site conditions?	
13)	Method of Rock Breaking/Material preparation for the excavation:	
	(i) Methodology adopted –	
	a) Drilling and blasting	
	b) Rock breakers	
	c) Rippers	
	d) Surface miners	
	e) Direct mucking by excavators	
	f) Manual means	
	g) Any other methods or combination of above	
	(ii) In case of drilling and blasting method:	
	(a) Type of blasting: short hole or deep hole	
	(b) Whether controlled blasting technique adopted? If yes, specify the technique with details of study, year of study	
	(c) Impacts due to blasting defined as per the studies, if any carried out previously as indicated	
	(d) Dust pollution	
	(e) Noise level (dB(A))	
	(f) Ground vibration studies and Fly rock projection	
	(iii) Impact of preparation of Ore and waste on environment-	
	a) Air Pollution	
	b) Noise Pollution	
	c) Water Pollution	




MEMBER SECRETARY
SEIAA-TN

	d) Safety standards	
	e) Traffic density	
	f) Road Condition (vulnerability)	
14)	Construction and Design of Dumps.	
	a) Place/Location	
	b) Approach to Dump form the mine distance and safety standards.	
	c) Area of extent occupied	
	d) Dimension of Dump and No. of terrace with heights (benches)	
	e) Vegetation covered ; If yes, specify the details of plants	
15)	Construction and Design of Waste Dumps	
	(i) Numbers and Location of Dumps as per approved Mining Plan	
	(ii) Specify whether reject dumps are located within or outside mining lease	
	(iii) Area occupied in excess of the approval mining plan.	
	(iv) Dimension of Terracing, Light, shapes, etc., Dump as per approved Mining Plan	
	(v) Fresh/Existing Dimension Height, shape, width. etc., of Dumps in the mine.	
	(vi) Volume/Quantity added to Waste/Dump during the violated period.	
	(vii) Approach to the Dump-Dimension, distance.	
	(viii) Number of and type of equipments deployed in Dump.	
	(ix) Provision of Garland drains around the Dumps.	
	(x) Any vegetation made on the slopes.	
	(xi) Provision of safety standards.	
	(xii) Impact of Waste/Dumps on environment.	
	a) Air pollution	
	b) Water pollution	



MEMBER SECRETARY
SEIAA-TN

	c) Dust pollution	
	d) Noise pollution	
	(xiii) Terracing	
16)	Construction and Design of Ore and sub grade ore/mineral Stacks:-	
	(i) Number and Location of Ore stacks.	
	(ii) Dimension of Ore/sub grade Stacks as per the Approved Mining Plan	
	(iii) Volume/Quantity added during the violation period.	
	(iv) Any Screening plant or any other loading equipment engaged during the violated period.	
	(v) Approach to Ore / sub grade stack –Distance, hazards.	
	(vi) Safety standards adopted while operation.	
	(vii) Impact of ore/sub grade on environment	
	a. Air pollution	
	b. Water pollution	
	c. Dust pollution	
	d. Noise pollution	
17)	Mine Pit Water	
	(i) Intersection of Ground water table, specify the measures taken.	
	(ii) Ground water table as per hydro geological Studies (Pumping test).	
	(iii) Provision of Garland drains around pit and dumps	
	(iv) Water pollution	
	(v) Management of mine water.	
	(vi) Ultimate pit limit, w.r.t Ground water intersection and management of drainage of ground water.	
18)	Diversion of General Drainage/River/Nallah course for mining	
19)	Clearing of vegetation before the commencement of mining operation- Number	



	of trees (species wise)	
20)	Man Power	
	(a) Statutory management	
	(b) Regular (Non –statutory) Manpower	
21)	Occupational Health and Safety.	
	(a) Periodical monitoring of health standards of persons employed as per Mine Act, 1952.	
	(b) Failure to inform statutory bodies periodically, if any	
22)	Population (Nearby Habitation)	
	(i) Population/Significant Population/Dense Population within the buffer zone of 10 Kms.	
	(ii) People displacement due to mining activities	
	(iii) Location/ Existence of habitation near the river or any other historical/sensitive/ forest distance.	
	(iv) Impact of mining on Surrounding and habitation-Air, Water, Noise, Pollution.	
	(v) Socio Economic aspects of mining.	
23)	CSR	
	(a) Field ground Activities or studies. Actual amount spent towards CSR and the future proposal.	
24)	NOC from DMG for quantity clarification in respect of settlement of all the amount payable against identified violation.	
25)	For the Clearance of EC, Public Hearing is mandated as per MoEF & CC Notification. Give reason for exemption of public hearing.	
26)	Conceptual post mining land use/restoration	
27)	Litigation/court cases, if any pending	
28)	Disaster management plan for the mine	



05.FILE NO.: 3888

TOR GRANT DATE – 09.08.2023
“B1” CATEGORY - BLACK GRANITE QUARRY
QUARRY IN OPERATION SINCE 28.12.1995

PROJECT SITE:

The Environmental Clearance(TOR) is granted to the proponent Tvl.TAMIN, for mining Black Granite Quarry over an extent of 20.28.0ha of Govt Land in S.F.No.170/1(P),**Siruvalai Village, Vikravandi Taluk ,Villupuram District**, Tamilnadu

T.O.R.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINCE REPORT (APPRAISAL MADE BY SEAC AND ACCEPTED BY SEIAA.)

1. Rainwater accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
2. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.



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

TERMS OF REFERENCE (ToR)

Lr No.SEIAA-TN/F.No.3888/SEAC/ToR-1533/2023 Dated:09.08.2023

To

M/s. Tamil Nadu Minerals Limited
31 Kamarajar Salai, Chempauk,
Chennai-600005,
Tamil Nadu.

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference with Public Hearing (ToR) for the Existing Black Granite quarry lease over an extent of 20.28.0 Ha S.F.No. 170/1, Siruvalai Village, Villuppuram Taluk, Villuppuram District, Tamil Nadu by M/s. Tamil Nadu Minerals Limited - under project category – “B1” and Schedule S.No.1(a) of EIA Notification 2006, as amended – ToR issued along with Public Hearing – under violation category preparation of EIA report – Regarding.

Ref: 1. Online proposal No. SIA/TN/MIN/435461/2023, 30.06.2023.
2. Your application submitted for Terms of Reference dated:04.07.2023
3. Minutes of the 395th SEAC meeting held on 27.07.2023.
4. Minutes of the 645th SEIAA meeting held on 09.08.2023.

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

The proponent, M/s. Tamil Nadu Minerals Limited has submitted application for Terms of Reference (ToR) in Form-I, Pre-Feasibility report for the Existing Black Granite quarry lease over an


MEMBER SECRETARY
SEIAA-TN

Lr No.SEIAA-TN/F.No.3888/SEAC/ToR-1533/2023 Dated: 09.08.2023

extent of 20.28.0 Ha S.F.No. 170/1, Siruvalai Village, Villuppuram Taluk, Villuppuram District, Tamil Nadu.

Discussion by SEAC and the Remarks:-

Existing Black Granite over an extent of 20.28.0 Ha S.F.No.170/1, Siruvalai Village, Villuppuram Taluk, Villuppuram District, Tamil Nadu by M/s.Tamil Nadu Minerals Limited - For Terms of Reference under violation category.

(SIA/TN/MIN/435461/2023, 30.06.2023)

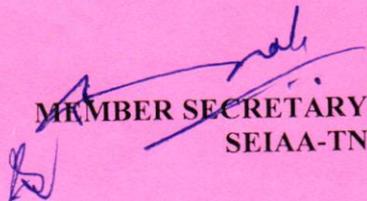
The proposal was placed in this 395th meeting of SEAC held on 27.07.2023. The Project Proponent made a detailed presentation on the proposed project. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, M/s. Tamil Nadu Minerals Limited has applied seeking Terms of Reference under violation category for EIA study for the Existing Black Granite over an extent of 20.28.0 Ha S.F.No.170/1, Siruvalai Village, Villuppuram Taluk, Villuppuram District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006 as amended.

Based on the presentation and details furnished by the project proponent, SEAC decided to grant **Terms of Reference (ToR) with Public Hearing, restricting the ultimate working depth to 50m BGL and** subject to the following ToRs, in addition to (i) the standard terms of reference for EIA study shown in **Annexure-I** and (ii) the Standard ToR for non-coal mining projects and details issued by the MoEF&CC to be included in EIA/EMP Report:

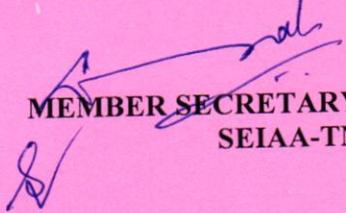
1. The PP shall furnish a comprehensive report based on the scientific studies carried out to assess the hydrogeological condition of the proposed quarry site and implication due to the quarrying activities, by involving **any one of the reputed Research and Academic Institutions** –
 - (i) CSIR-Central Institute of Mining & Fuel Research (CIMFR), Dhanbad,
 - (ii) National Institute of Rock Mechanics (NIRM), Bangalore,
 - (iii) Division of Geotechnical Engineering-IIT-Madras,
 - (iv) Dept of Mining Engg, National Institute of Technology (NITK), Surathkal,
 - (v) University of Madras – Centre for Environmental Sciences, Guindy Cmapus and
 - (vi) Anna University Chennai-Dept of Geology, CEG Campus.


MEMBER SECRETARY
SEIAA-TN

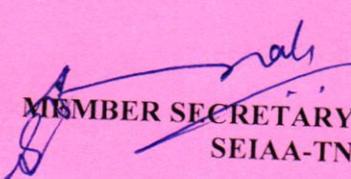
2. The PP shall provide the detailed information on implications due to the existence of Poultry farms and structures located within a radial distance of 1 km.
3. The PP shall provide the implications due to this unsymmetrical nature of this project, highly fragmented & non-contiguous in nature, on the existing two villages & Patta land located nearby and prepare a conceptual plan on systematic & scientific way of quarrying along with the required mitigation measures through adopting a '**Quarry Management System**' for this project by involving **any one of these reputed Research and Academic Institutions** –
 - (i) CSIR-Central Institute of Mining & Fuel Research (CIMFR), Dhanbad,
 - (ii) National Institute of Rock Mechanics (NIRM), Bangalore,
 - (iii) Division of Geotechnical Engineering-IIT-Madras,
 - (iv) Dept of Mining Engg, National Institute of Technology (NITK), Surathkal, and
 - (v) Dept of Mining Engineering, CEG Campus, Anna University, Chennai.
4. The PP shall prepare a plan for installing a garland drainage around the periphery of the lease of proposed quarry.

Annexure-I

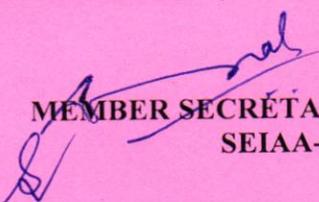
1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:
 - (i) Original pit dimension
 - (ii) Quantity achieved Vs EC Approved Quantity
 - (iii) Balance Quantity as per Mineable Reserve calculated.
 - (iv) Mined out Depth as on date Vs EC Permitted depth
 - (v) Details of illegal/illicit mining
 - (vi) Violation in the quarry during the past working.
 - (vii) Quantity of material mined out outside the mine lease area
 - (viii) Condition of Safety zone/benches
 - (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.
2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.
3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it


MEMBER SECRETARY
SEIAA-TN

- belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
 5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
 6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.
 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.
 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
 10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
 11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.

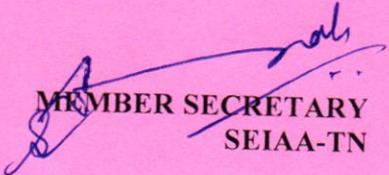

MEMBER SECRETARY
SEIAA-TN

12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
14. Quantity of minerals mined out.
 - Highest production achieved in any one year
 - Detail of approved depth of mining.
 - Actual depth of the mining achieved earlier.
 - Name of the person already mined in that leases area.
 - If EC and CTO already obtained, the copy of the same shall be submitted.
 - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,
17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.
19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along

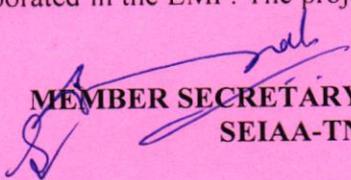

MEMBER SECRETARY
SEIAA-TN

with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
28. Impact on local transport infrastructure due to the Project should be indicated.

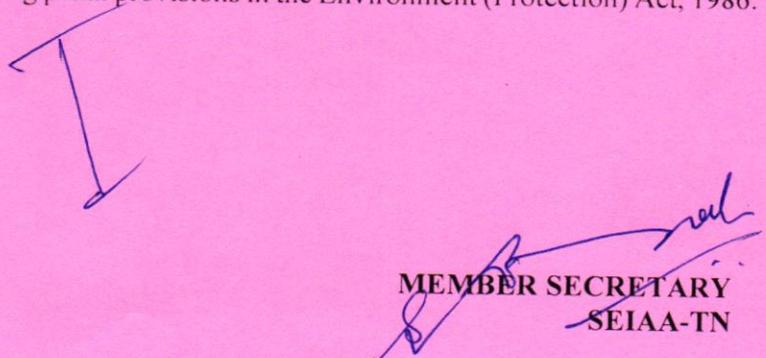

MEMBER SECRETARY
SEIAA-TN

29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
32. 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-I in consultation with the DFO, State Agriculture University. 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.
33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted 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
34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project


MEMBER SECRETARY
SEIAA-TN

specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

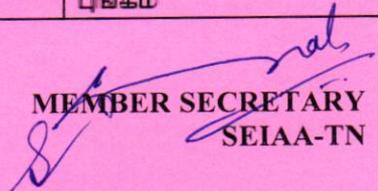
37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
38. The Socio-economic studies should be carried out within a 5km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.



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>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, Manjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவுளி.
18	<i>Creteva adansonii</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	புங்கம்


MEMBER SECRETARY
SEIAA-TN

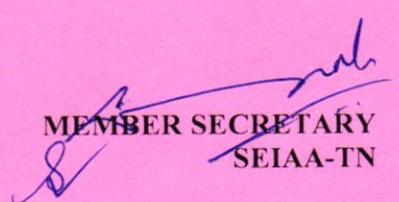
40	<i>Premna mollissima</i>	Munnai	முன்னை
41	<i>Premna serratifolia</i>	Narumunnai	நறு முன்னை
42	<i>Premna tomentosa</i>	Malaipoovarasu	மலை புவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வன்னி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வேங்கை
45	<i>Pterospermum canescens</i>	Vennangu, Tada	வெண்ணாங்கு
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	புவரசு
59	<i>Walsuratrifoliata</i>	valsura	வால்கரா
60	<i>Wrightia tinctoria</i>	Veppalai	வெப்பாலை
61	<i>Pithecellobium dulce</i>	Kodukkapuli	கொடுக்காப்புளி

Discussion by SEIAA and the Remarks:-

Existing Black Granite over an extent of 20.28.0 Ha S.F.No. 170/1, Siruvalai Village, Villuppuram Taluk, Villuppuram District, Tamil Nadu by M/s. Tamil Nadu Minerals Limited - For Terms of Reference under violation category

The subject was placed in this 645th meeting of Authority held on 09 .08.2023. The Authority noted that the subject was placed in the 395th meeting of SEAC held on 27.07.2023 and the SEAC has furnished its recommendation for the grant of **Terms of Reference (ToR) with Public Hearing under violation category** for the EIA study subject to the conditions stated therein.

After detailed discussions, the Authority accepts the recommendation of SEAC and decided to **grant Terms of Reference (ToR) along with Public Hearing under violation category restricting the ultimate working depth to 45m BGL** and cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions in addition to the conditions in 'Annexure B' of this minute.

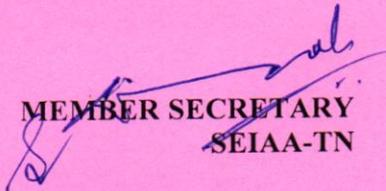

MEMBER SECRETARY
SEIAA-TN

1. The Authority noticed that the project proponent has proposed to work in too many blocks. Instead, the PP shall rework the site to work in one component block in phases.
2. The project proponent shall prepare mine closure plan considering quantity of Topsoil & Weathered rock. If any.
3. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.

Annexure 'B'

Cluster Management Committee

1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.
2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,
3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.
4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.
5. The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.
6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the environmental policy devised shall be given in detail.
7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.
8. The committee shall furnish the Emergency Management plan within the cluster.
9. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.
10. The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.
11. The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.


MEMBER SECRETARY
SEIAA-TN

Impact study of mining

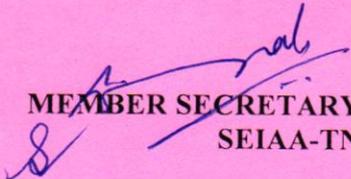
12. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following
- Soil health & soil biological, physical land chemical features .
 - Climate change leading to Droughts, Floods etc.
 - Pollution leading to release of Greenhouse gases (GHG), rise in Temperature, & Livelihood of the local people.
 - Possibilities of water contamination and impact on aquatic ecosystem health.
 - Agriculture, Forestry & Traditional practices.
 - Hydrothermal/Geothermal effect due to destruction in the Environment.
 - Bio-geochemical processes and its foot prints including environmental stress.
 - Sediment geochemistry in the surface streams.

Agriculture & Agro-Biodiversity

- Impact on surrounding agricultural fields around the proposed mining Area.
- Impact on soil flora & vegetation around the project site.
- Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.
- The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.
- Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
- The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.

Forests

- The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
- The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.


MEMBER SECRETARY
SEIAA-TN

21. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
22. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.

Water Environment

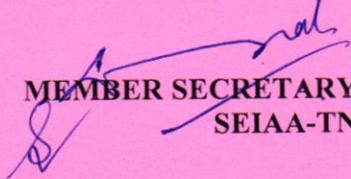
23. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.
24. Erosion Control measures.
25. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.
26. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
27. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.
28. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.
29. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
30. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.

Energy

31. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

Climate Change

32. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.


**MEMBER SECRETARY
SEIAA-TN**

33. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.

Mine Closure Plan

34. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.

EMP

35. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.

36. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.

Risk Assessment

37. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.

Disaster Management Plan

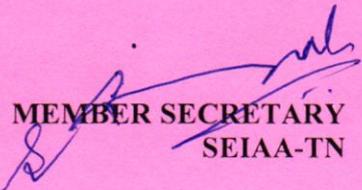
38. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.

Others

39. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.

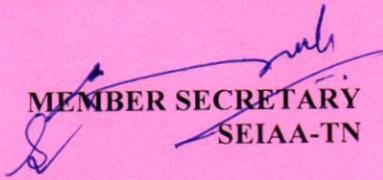
40. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.

41. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.

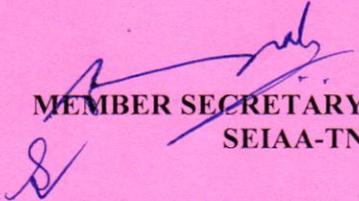

MEMBER SECRETARY
SEIAA-TN

A. STANDARD TERMS OF REFERENCE

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.


MEMBER SECRETARY
SEIAA-TN

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing

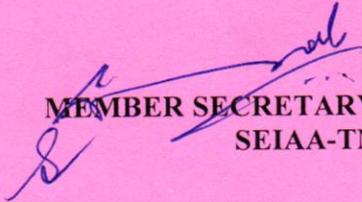

MEMBER SECRETARY
SEIAA-TN

Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and

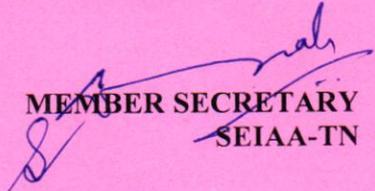

MEMBER SECRETARY
SEIAA-TN

- EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
 - 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
 - 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
 - 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
 - 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
 - 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
 - 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
 - 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
 - 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form


MEMBER SECRETARY
SEIAA-TN

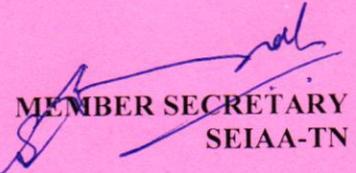
(indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with


MEMBER SECRETARY
SEIAA-TN

time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - i) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the


MEMBER SECRETARY
SEIAA-TN

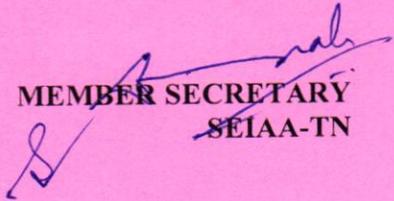
existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

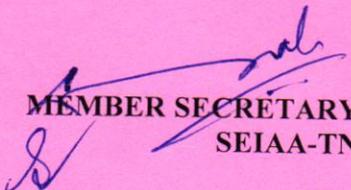
1. Project name and location (Village, District, State, Industrial Estate (if applicable)).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.


MEMBER SECRETARY
SEIAA-TN

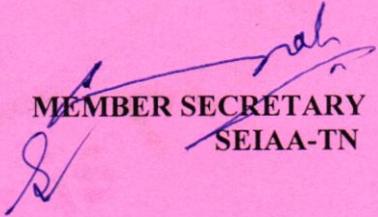
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

Besides the above, the below mentioned general points should also be followed:-

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.


MEMBER SECRETARY
SEIAA-TN

- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.
- After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
 - The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
 - The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.


MEMBER SECRETARY
SEIAA-TN

Copy to:

1. The Additional Chief Secretary to Government, Environment, Climate Change and Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. The Chairman, Tamil Nadu Pollution Control Board,

76, Mount Salai, Guindy, Chennai - 600 032.

4. The APCCF (C), Regional Office, MoEF & CC (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
5. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi - 110 003.
6. The District Collector, Tiruvallur District.
7. Stock File.

06.FILE NO.: 5512

EC GRANT DATE – 21.11.2023

“B2” CATEGORY - BLACK GRANITE QUARRY

PROJECT SITE:

The Environmental Clearance was granted to the proponent Tvl.Gem Granites(P)Ltd, for mining Black Granite Quarry over an extent of 2.41.5ha of Patta Lands in S.F.Nos. 4/4B& etc,**Vengamur Village, Vikravandi Taluk ,Villupuram District, Tamilnadu**

ENVIRONMENT SETTING:

There is a ODAI (water body) adjacent to the mining lease Area.

E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINEE REPORT (APPRAISAL MADE BY SEAC AND ACCEPTED BY SEIAA.)

1. 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.
2. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighbouring 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.
3. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
4. 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.
5. 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.
6. 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.
7. 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.
8. Over burdens may be analysed 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.
9. 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.

10. Since the waterbodies are situated nearby, the PP shall carry out the scientific studies to assess the hydrogeological condition of the quarry within a period of one year from the commencement of mining operations, 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-I IT-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.
11. The PP shall ensure that such waste/reject dumps shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment and to prevent causation of floods.
12. Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the PP shall take adequate steps in discussion with the concerned DFO to suitably terrace the waste dumps ensuring the stability through vegetation to consolidate the green belt development in the areas adjacent to the reserved forest location.
13. The PP shall ensure that all the haul roads within the quarry lease shall be provided with adequate number of roadside drains and these drains shall be kept free from blockage for runoff disposals. This run off from the road side drainage shall relate to the natural drainage system in the area.
14. 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 geotagged photographs of the process should be included in the HYCR.
15. 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.

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 Partner
GEM GRANITES PRIVATE LIMITED
Gem Granites Pvt Ltd,
No.78, Cathedral Road,
Chennai-600 086. -600086

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/57198/2016 dated 06 Jul 2016. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC23B000TN135526 |
| 2. File No. | 5512/2016 |
| 3. Project Type | New |
| 4. Category | B |
| 5. Project/Activity including Schedule No. | N/A |
| 6. Name of Project | Gem Granites Pvt Ltd, Black Granite Quarry over an extent of 2.41.5Ha. in S.F.Nos.34/4B(Vengamoor)52/3,4,5,6,7,8,9,10,59/1,3,4A,4B,4C,6B,9,10A,10B,11,12,13A,13B,14,15,16,17,18,19,22,23,24 in Hanumanthapuram Village, Villupuram Taluk & District. |
| 7. Name of Company/Organization | GEM GRANITES PRIVATE 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: 21/11/2023

(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.5512/EC.No:6144/2023 dated:7.11.2023

Sir/Madam,

Sub: SEIAA-TN – Existing Black Granite Quarry lease over an extent of 2.41.5Ha at S.F No. 4/4B of Vengamoor Village & 52/3, 52/4, 52/5, 52/6, 52/7, 52/8, 52/9, 52/10, 59/1, 59/3, 59/4A, 59/4B, 59/4C, 59/6B, 59/9, 59/10A, 59/10B, 59/11, 59/12, 59/13A, 59/13B, 59/14, 59/15, 59/16, 59/17, 59/18, 59/19, 59/22, 59/23, 59/24 (Patta land) of Hanumanthapuram Village, Villupuram Taluk, Villupuram District, Tamil Nadu by Tvl. Gem Granites – issue of Environmental Clearance – Regarding.

- Ref:**
1. Online Proposal No. SIA/TN/MIN/57198/2016 dt 06/07/2016.
 2. Your Application for Environmental Clearance dated:11.07.2016.
 3. Minutes of the 404th meeting of SEAC held on 25.08.2023.
 4. Minutes of the 655th meeting of SEIAA held on 19.09.2023.
 5. Minutes of the 417th meeting of SEAC held on 18.10.2023.
 6. Minutes of the 671st meeting of SEIAA held on 07.11.2023.

Details of Minor Mineral Activity:-

This has reference to your application 1st & 2nd 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.

Sl. No	Details of the Proposal	Data Furnished
1	Name of the Owner/Firm	M/s.GEM GRANITES PRIVATE LIMITED.,


**MEMBER SECRETARY
SEIAA-TN**

		No. 78, Cathedral Road, Chennai -600 086.
2	Type of quarrying (Savudu/Rough Stone/Sand/Granite)	Black Granite
3	S.F No. Of the quarry site	S.F.No. 4/4B & 52/3, 52/4, 52/5, 52/6, 52/7, 52/8, 52/9, 52/10, 59/1, 59/3, 59/4A, 59/4B, 59/4C, 59/6B, 59/9, 59/10A, 59/10B, 59/11, 59/12, 59/13A, 59/13B, 59/14, 59/15, 59/16, 59/17, 59/18, 59/19, 59/22, 59/23, 59/24 (Patta land)
4	Village in which situated	Vengamoor & Hanumanthapuram Villages
5	Taluk in which situated	Villupuram Taluk
6	District in which situated	Villupuram District
7	Extent of quarry (in ha.)	2.41.5 Ha - Patta land
8	Latitude & Longitude of all corners of the quarry site	12°03'51.10"N to 12°03'56.65"N 79°21'9.62"E to 79°21'16.12"E
9	Topo Sheet No.	57 O/8
10	Type of mining	Opencast Semi Mechanized Method
11	Period of Current Mine Plan	5 years
12	Production (Quantity in m ³)	87890 m ³ of RoM, 4395 m ³ of Black Granite@ 5% recovery and the annual peak production should not exceed 29685 m ³ of RoM, 1484 m ³ of Black Granite
13	Depth of Quarrying	28m
14	Depth of water table	60m
15	Man Power requirement per day:	18 Nos.
16	Water requirement: 1. Drinking & domestic purposes 2. Dust suppression 3. Green Belt	0.750 kLD Borewell 1.750 kLD Tankers
17	Power requirement	TNEB power supply & DG set


MEMBER SECRETARY
SEIAA-TN

18	Precise area communication issued by Industries Dept, Govt of Tamil Nadu	G.O.(3D) No.31, Industries (MME-I) Department dated: 21.02.2007
19	Mining Plan approved by Dept. of Geology & Mining	Mine plan approved vide Lr.No. 7473/MM5/2006 dated 29.01.2007 3rd scheme of mining approved vide letter No. 3348/MM4/2023 dated: 24.05.2023
20	500m Cluster Letter by Deputy Director, Department of G&M.	Rc.No.8/G&M/1141/2015, Dated: 28.06.2016 and Rc.No.8/G&M/48/2023, dated 18.08.2023
21	VAO certificate regarding habitations in 300m radius	Letter Dated 05.08.2021
22	Project Cost (excluding EMP)	131.40 lakhs
23	Total EMP cost (in Rs. Lakh).	Capital cost – Rs.32,00,050/- Recurring cost/Annum – Rs. 12,04,621/--+ 5% inflation cost
24	CER cost (in Rs. Lakh).	Rs.11.20 Lakh as accepted by the PP
<p><u>Validity:</u> This Environmental Clearance is accorded for the quantity of 87890 m³ of RoM, 4395 m³ of Black Granite@ 5% recovery upto the depth of 28m and the annual peak production should not exceed 29685 m³ of RoM, 1484 m³ of Black Granite as per the approved mining plan and 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</p>		

AFFIDAVIT FURNHSED BY THE PROPONENT

We, Gem Granites PVT LTD, No.76, Cathedral Road, Chennai –Tamil Nadu State – 6000086, solemnly declare and sincerely affirm that:

We have apply for getting Environment Clearance to SEIAA, Tamil Nadu State for quarry lease for quarrying of **Black Granite quarry from over an Extent of 2.41.5Ha in S.F. No. 4/4B at Vengamur Village & S.F.No.52/3 to 52/10 and 59/1, 3, 4A, 4B, 59/4C, 6B, 9, 10A, 10B, 11, 12, 13A, 59/13B, 14 to 19, 22, 23 & 24 at Anumanthapuram Village in of Vikaravandi Taluk, Villuppuram District Tamil Nadu State.**

1. We swear to state and confirm that within 10km area of the quarry site, I have applied for environment clearance, none of the following is situated:

**MEMBER SECRETARY
SEIAA-TN**

- a. Protected areas notified under the wild life (Protection) Act, 1972,
 - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and Control of Pollution) Act, 1974,
 - c. Eco-Sensitive areas as notified.
 - d. Interstate Boundary
2. We will spend the amount of **Rs.11,20,000/- (Rupees eleven lakhs twenty thousand only)** towards Corporate Environment Responsibility (Revised CER) for the following activities to the **Government Higher Secondary School UDISE Code: 33070800703) Karuvatchi Village, Kanai Block, Villupuram District** before commencement of quarrying activities.

Sl. No.	Description	Cost breakup
1	Renovation of Existing Toilet and its Maintenance	Rs.11,20,000/-
2	Providing Computers, Smart Class Board, Projector, Steel Bureau to the school	
3	Providing Environmental related books to the school	
4	Carrying out plantation in the School Boundary @ 100 Nos	

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

I. Existing Quarries:

S. No.	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F. Nos.	Extent (in hecets)	Lease period	Remakrs
1	Gem Granites Pvt Ltd.,	Black Granite	Vikravandi Vengamur Hanumanthapuram	4/4B, 52/3, 52/4, 52/5, 52/6, 52/7, 52/8, 52/9, 52/10, 59/1, 59/3, 59/4A, 59/4B, 59/4C, 59/6B, 59/9,	0.57.0 0.35.0 0.04.0 0.01.0 0.01.0 0.01.0 0.01.0 0.01.5 0.01.5 0.04.0 0.13.5 0.04.0 0.11.0 0.03.0 0.08.0 0.06.5	19.06.2009 To 18.06.2029	-

MEMBER SECRETARY
SEIAA-TN

				59/13B, 59/14, 59/15, 59/16, 59/17, 59/18, 59/19, 59/22, 59/23, 59/24, 59/10A, 59/10B, 59/11 59/12 59/13A	0.05.0 0.05.0 0.07.0 0.05.0 0.04.0 0.05.0 0.05.5 0.04.5 0.05.0 0.05.5 0.04.0 0.05.0 0.11.0 0.10.0 0.06.5 2.41.5		
2	M/S. Mani Omega Granite (P) Ltd.,	Black Granite	Vikravandi Vengamur & Hanumanthapuram	12/1(P) 12/3(P) 12/4(P) 12/5 12/6 12/7 12/8 59/7B(P) 59/8B(P) 60/2 61/3A1	0.23.0 0.03.0 0.15.0 0.01.0 0.16.0 0.16.0 0.20.0 0.19.0 0.23.0 0.30.0 0.17.5 1.83.5	25.06.2011 To 24.06.2031	--

II. Proposed Quarries:

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

III. Lease Expired and abandoned area:

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

4. There will not be hindrance or disturbance to the people living during quarrying activities and transportation of the mineral.
5. There is no approved habitation within 300m radius from the periphery of my quarry.
6. I swear that afforestation will be carried out during the course of quarrying operation and maintained.
7. The required insurance will be taken in the name of the laborers working in my quarry site.


MEMBER SECRETARY
SEIAA-TN

8. The existing road from the main road to quarry is in good condition and the same is being maintained and utilized for Transportation of Rough stone.
9. I will not engage any child labor in my quarry site and I aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided to all the laborers working in my quarry.
11. No permanent structures, temples etc., are located within 500m radius from the periphery of my quarry.

REVISED EMP BUDGET

Activities	Capital Cost	Recurring Cost
Air Environment	3200050	1204621
Noise Environment		
Waste Management		
Mine Closure		
Implementation of EC, Mining Plan & DGMS Condition- Public hearing commitment		
Start Rating		
CER		

EMP BUDGET SUMMARY BREAKUP YEAR WISE UP TO LEASE PERIOD

Year	Total Cost
2023-24	₹ 44,04,671/-
2024-25	₹ 12,64,852/-
2025-26	₹ 13,28,095/-
2026-27	₹ 14,55,500/-

Note: Cost inclusive of 5% cost inflation anticipated every year

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

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

The Project Proponent has submitted a copy of the letter obtained from the Deputy Director, Department of Geology & Mining, Villupuram District. In his/her Letter Roc.No.8/G&M/1141/2015 dated: 28.06.2016 & Rc.No.8/G&M/48/2023, dated 18.08.2023, he/she has stated the details of other quarries (Proposed / Existing / Abandoned Quarries) within a radius 500m from the boundary of the proposed quarry site as follows:

I. Existing Quarries:

S. No.	Name of the lessee	Name of the Mineral	Taluk & Village	S.F. Nos.	Extent (in hecets)	Lease period	Remakrs

MEMBER SECRETARY
SEIAA-TN

	/ permit holder						
1	Gem Granites Pvt Ltd.,	Black Granite	Vikravandi Vengamur Hanumanthapuram	4/4B, 52/3, 52/4, 52/5, 52/6, 52/7, 52/8, 52/9, 52/10, 59/1, 59/3, 59/4A, 59/4B, 59/4C, 59/6B, 59/9, 59/13B, 59/14, 59/15, 59/16, 59/17, 59/18, 59/19, 59/22, 59/23, 59/24, 59/10A, 59/10B, 59/11 59/12 59/13A 2.41.5	0.57.0 0.35.0 0.04.0 0.01.0 0.01.0 0.01.0 0.01.0 0.01.5 0.01.5 0.04.0 0.13.5 0.04.0 0.11.0 0.03.0 0.08.0 0.06.5 0.05.0 0.05.0 0.07.0 0.05.0 0.04.0 0.05.0 0.05.5 0.04.5 0.05.0 0.05.5 0.04.0 0.05.0 0.11.0 0.10.0 0.06.5	19.06.2009 To 18.06.2029	-
2	M/S. Mani Omega Granite (P) Ltd.,	Black Granite	Vikravandi Vengamur & Hanumanthapuram	12/1(P) 12/3(P) 12/4(P) 12/5 12/6 12/7 12/8 59/7B(P) 59/8B(P) 60/2 61/3A1 1.83.5	0.23.0 0.03.0 0.15.0 0.01.0 0.16.0 0.16.0 0.20.0 0.19.0 0.23.0 0.30.0 0.17.5	25.06.2011 To 24.06.2031	--

II. Proposed Quarries:

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

**MEMBER SECRETARY
SEIAA-TN**

---- NIL ----							
III. Lease Expired and abandoned area:							
S. No.	Name of the lessee / permit holder	Name of the Mineral	Taluk & Village	S.F. Nos.	Extent (in hecets)	Lease Period	Remarks
---- NIL ----							

DISCUSSION BY SEIAA AND THE REMARKS: -

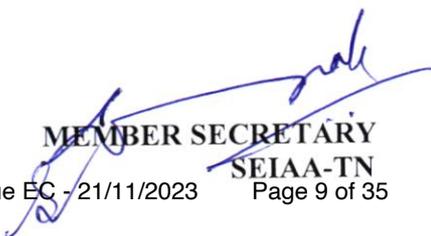
Existing Black Granite Quarry lease over an extent of 2.41.5Ha at S.F No. 4/4B of Vengamoor Village & 52/3, 52/4, 52/5, 52/6, 52/7, 52/8, 52/9, 52/10, 59/1, 59/3, 59/4A, 59/4B, 59/4C, 59/6B, 59/9, 59/10A, 59/10B, 59/11, 59/12, 59/13A, 59/13B, 59/14, 59/15, 59/16, 59/17, 59/18, 59/19, 59/22, 59/23, 59/24 (Patta land) of Hanumanthapuram Village, Villupuram Taluk, Villupuram District by Tvl. Gem Granites - Environmental Clearance for 3rd scheme of mining.

(SIA/TN/MIN/57198/2016 dt 06/07/2016)

The subject was placed in this 671st meeting of Authority held on 07.11.2023. The Authority noted that the subject was appraised in 417th meeting of SEAC held on 18.10.2023 and the SEAC has furnished its recommendations for the grant of Environmental Clearance to the project 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 87890 m³ of RoM, 4395 m³ of Black Granite@ 5% recovery upto the depth of 28m and the annual peak production should not exceed 29685 m³ of RoM, 1484 m³ of Black Granite** as per the approved mining plan. This is also subject to the standard conditions as per Annexure - (I) of SEAC minutes, other normal conditions stipulated by MOEF&CC & all other specific conditions as recommended by SEAC 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 5 years and also during the mine plan period, till the project life so as to review the EC conditions and to ensure that they have all been adhered to and implemented.
3. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life.

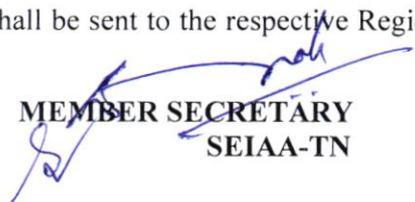

MEMBER SECRETARY
SEIAA-TN

4. There should be regular monitoring of air quality, water quality, ground water level and noise quality and reports regarding the same should be submitted to TNPCB, SEIAA & IRO of MoEF&CC once in every 6 months.
5. The proponent shall strictly adhere to the mining plan and half yearly and annual returns shall be submitted to the Director of Geology and Mining Department with copy marked to TNPCB, SEIAA & IRO of MoEF&CC.
6. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC.
7. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP and as per the amount committed and approved in EC for EMP. Status of progressive mine closure and green belt implementation should be included in the half yearly compliance report submitted to TNPCB, SEIAA & IRO of MoEF&CC.
8. 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.
9. 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.

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


MEMBER SECRETARY
SEIAA-TN

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

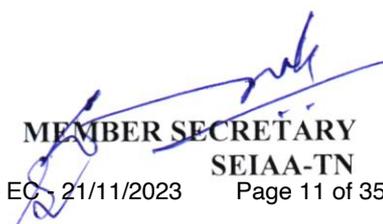
5. The project proponent shall strictly adhere to the provisions of Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral 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 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.


MEMBER SECRETARY
SEIAA-TN

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.
- 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.


MEMBER SECRETARY
SEIAA-TN

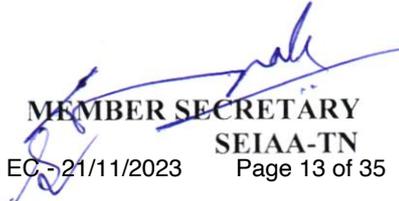
21. The proponent shall ensure that activity does not deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community nor result in eutrophication of soil and water.
22. The activities should not disturb the soil properties and seed and plant growth. Soil amendments 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.

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


MEMBER SECRETARY
SEIAA-TN

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.
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.


MEMBER SECRETARY
SEIAA-TN

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

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.


MEMBER SECRETARY
SEIAA-TN

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 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.

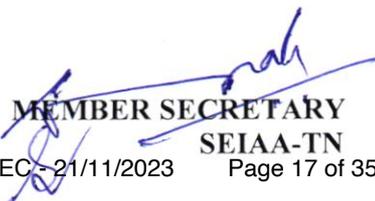
62. The EMP shall also be implemented in consultation with local self-government institutions & Govt. departments.


**MEMBER SECRETARY
SEIAA-TN**

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.


MEMBER SECRETARY
SEIAA-TN

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 species 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, chemical, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broadcasted after topsoil and treated overburden are spread.
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 be 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.

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, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.


MEMBER SECRETARY
SEIAA-TN

- 2) The proponent shall provide the particulars for carrying out the plantation of 1450 Nos. of tall saplings of native species within the proposed mining area as committed before obtaining CTO from TNPCB.
- 3) For securing the safety of persons employed in the mine, the PP shall carry out the scientific studies to assess the slope stability of the benches and quarry wall when the depth of the quarry touches 30 m (or) after the completion of 4 years of operation whichever is earlier, by involving anyone of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus, etc. 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.
- 4) **Since the waterbodies are situated nearby, the PP shall carry out the scientific studies to assess the hydrogeological condition of the quarry within a period of one year from the commencement of mining operations, 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 strictly adhere to the provisions provided in the Annexure to safeguard the existence of Reserved Forest/Reserve Land within 1 km from the project site.**
- 6) As accepted by the Project Proponent the CER cost of **Rs.11.20 lakh** and the amount shall be spent for the following committed activities at Government Higher Secondary School (UDISE Code: 33070800703), Karuvatchi village, Kanal Block, Villupuram District through the District administration before obtaining CTO from TNPCB.

Sl. No.	Description	Cost breakup
1	Renovation of Existing Toilet and its Maintenance	Rs. 2,50,000/-
2	Providing Computers, Smart Class room, Projector, Steel Bureau, LED lights, Ceiling Fans, UPS unit, Audio speaker set, Mic, Amplifier, Library steel rack and Painting works to the school	Rs. 7,00,000/-
3	Providing Environmental related books and Study materials for JEE/NEET exams to the school	Rs. 45,000/-

MEMBER SECRETARY
SEIAA-TN

4	Carrying out plantation in the School Boundary @ 100 Nos	Rs. 25,000/-
TOTAL		Rs. 11,20,000/-

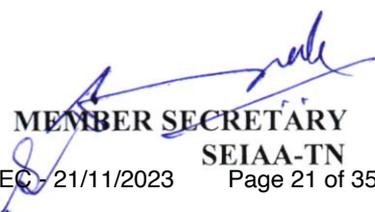
7. Since the R.F is located very close to the proposed quarry site, the PP shall develop Green Belt (Thick Tree plantation in two to three rows) along the boundary of the mine lease area before obtaining the CTO from the TNPCB.
8. The proponent shall construct and maintain proper fencing all around the boundary of the proposed working quarry adjacent to the direction of the location of the Reserved Forest before the commencement of the operation and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
9. The PP shall take steps so that the overburden, waste rock, rejects and fines generated during the mining operations shall be stored in separate dumps positioned in opposite direction to the location of the reserved forest.
10. The PP shall ensure that such waste/reject dumps shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment and to prevent causation of floods.
11. The PP shall select the site for dumps on impervious ground to ensure minimum leaching effects due to precipitations.
12. The PP shall take necessary steps that wherever possible, the waste rock, overburden etc. shall be back-filled into the mine excavations with a view to restoring the land to its original use as far as possible.
13. Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the PP shall take adequate steps in discussion with the concerned DFO to suitably terrace the waste dumps ensuring the stability through vegetation to consolidate the green belt development in the areas adjacent to the reserved forest location.
14. The PP shall carry out the scientific investigations in order to keep the ground and noise vibrations caused by blasting operations and movement of HEMM such as Excavators, Trucks within safe limit.
15. The PP shall not perform secondary breakage involving the drilling & blasting in the quarrying operations and it can be replaced with non-conventional methods such as noise-controlled rock breakers, usage of non-explosive expansive materials/chemicals, Hydraulic Splitting based on the suitable scientific studies carried out by any reputed scientific and academic institutions.


MEMBER SECRETARY
SEIAA-TN

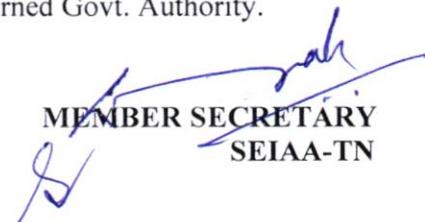
16. The PP shall take adequate steps to control the air pollution due to fines, dust, smoke or gaseous emissions during the quarrying operations within 'Permissible Limits' specified under the environmental laws.
17. The Quarrying and Mining activities shall be restricted in the Eco-sensitive Zone of 60 m from the boundary of the Reserved area and hence the PP shall not even indulge in constructing the haul roads in these areas.
18. No development on existing steep hill slopes or slopes with a high degree of erosion shall be permitted. Hence, the PP shall not carry out the quarrying on steep hill slopes with a gradient of 20° or more or areas with a high degree of erosion on forestland.
19. The PP shall give an affidavit at the time of lease execution that there will be no felling of trees (or) any encroachment will not be made on these Reserved Forest lands and also within the Eco- sensitive Zone of 60 m without the prior permission of the State Government in case of reserve forest land as per the procedures laid down by the State Government.
20. The PP shall not use plastic carry bags within the quarry area.
21. The PP shall ensure that all the haul roads within the quarry lease shall be provided with adequate number of road side drains and these drains shall be kept free from blockage for runoff disposals. This run off from the road side drainage shall relate to the natural drainage system in the area.
22. The PP shall adhere to the provisions of the MoEF had issued Notification No. S.O. 1545 dated 25th June 2009 regulating certain activities in the eco-sensitive zone to conserve and protect the reserved forest area from ecological and environmental point of view.

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


MEMBER SECRETARY
SEIAA-TN

- undergo initial/periodical training in the DGMS approved GVTC situated in Trichy / Salem / Hosur.
- 5) The PP shall construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
 - 6) Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.
 - 7) The proponent shall install the 'S3 (or) G2' type of fencing all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
 - 8) The Proponent shall submit a conceptual 'Slope Stability Action Plan' incorporating the benches & accessible haul road approved by the concerned AD (Mines) for the proposed quarry to the DEE/TNPCB at the time of obtaining the CTO.
 - 9) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination in the DGMS approved OHS Clinics/Hospitals as per the DGMS Circular No. 01 of 2011 before they are engaged in mining activities.
 - 10) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are provided with adequate PPEs before engaged in mining operations.
 - 11) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
 - 12) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.
 - 13) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
 - 14) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
 - 15) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.


MEMBER SECRETARY
SEIAA-TN

- 16) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
- 17) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
- 18) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
- 19) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 20) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 21) **Noise and Vibration Related:** (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 22) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
- 23) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.


MEMBER SECRETARY
SEIAA-TN

- 24) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 25) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 26) The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.
- 27) The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.
- 28) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
- 29) The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
- 30) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
- 31) The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
- 32) To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.


MEMBER SECRETARY
SEIAA-TN

- 33) The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
- 34) The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
- 35) The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
- 36) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
- 37) All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
- 38) That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
- 39) As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEFCC, the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.
- 40) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.


MEMBER SECRETARY

SEIAA-TN

41) As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere to the EMP as committed.

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 tomentosa</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>	Punai	புன்னை
13	<i>Cassia fistula</i>	Sarakondrai	சரக்கொன்றை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொன்றை
15	<i>Chloroxylon sweitenia</i>	Purasamaram	பரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவுளி
18	<i>Creteva adansonii</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	ஆற்றுப்புலக
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயா மரம், ஆயிலி
27	<i>Lannea coromandelica</i>	Odhiam	ஓதியம்
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	மகிழ்மரம்
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	புங்கம்


MEMBER SECRETARY
SEIAA-TN

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	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 bellerica</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

சுரங்கங்களில் குவாரி செயல்பாடுகளுக்கான கற்றுத்தழல் அனுமதி கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது SEIAA/..... தேதியிடப்பட்டு கற்றுத்தழல் அனுமதி.....தேதி வரை செல்லத்தக்கதாக உள்ளது

பகைம பகுதி வளர்ச்சி மேம்பாட்டுக்கான கரங்கத் திட்டம்	குவாரியின் எல்லையைக் கற்றி வேலி அமைக்க வேண்டும் கரங்கப்பாதையின் ஆழம் தளமட்டத்திலிருந்து... மீட்டர்க்கு மிகாமல் இருக்க வேண்டும் காற்றில் மாக ஏற்படாதவாறு கரங்க பணிகளை மேற்கொள்ள வேண்டும்.
நட்ப்பட்டு பராமரிக்கப்பட வேண்டிய மரங்கள் எண்ணிக்கை	வாகனங்கள் செல்லும் பாதையில் மாக ஏற்படாத அளவிற்கு தண்ணீரை முறையாக தண்ணீர் வாரிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும். இரைச்சல் அளவையும் தாசி மாகபாட்டையும் குறைப்பதற்காக குவாரியின் எல்லையை கற்றி அடர்த்தியான பகைம பகுதியை ஏற்படுத்த வேண்டும்
கரங்கத்தில் வெடி வைக்கும்பொழுது நடவடிக்கைகளை உள்நிப்பாக செயல்படுத்தப்பட வேண்டும்	கரங்கத்தில் வெடி வைக்கும்பொழுது நிலஅதிர்வுகள் ஏற்படாதவாறும் மற்றும் கற்கள் பறக்காதவாறும் பாதுகாப்பு நடவடிக்கைகளை உள்நிப்பாக செயல்படுத்தப்பட வேண்டும்
கரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டி.சி.பெல்ஸ் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற்கொள்ள வேண்டும்.	கரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டி.சி.பெல்ஸ் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற்கொள்ள வேண்டும்.
கரங்க சட்ட விதிகள் 1956ன் கீழ் கரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு க்காதாரமுள்ள கழிப்பறை வசதிகளை செய்து தர வேண்டும்.	கரங்க சட்ட விதிகள் 1956ன் கீழ் கரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு க்காதாரமுள்ள கழிப்பறை வசதிகளை செய்து தர வேண்டும்.
கிராமம் அல்லது பஞ்சாயத்து வட்டியாக வாகனங்கள் செல்லும் சாலையை தொடர்ந்து நன்கு பராமரிக்க வேண்டும்.	கிராமம் அல்லது பஞ்சாயத்து வட்டியாக வாகனங்கள் செல்லும் சாலையை தொடர்ந்து நன்கு பராமரிக்க வேண்டும்.
கரங்கப்பணிகளால் அருகில் உள்ள விவசாயப் பணிகள் மற்றும் நிரிதலைகள் பாதிக்கப்படக் கூடாது.	கரங்கப்பணிகளால் அருகில் உள்ள விவசாயப் பணிகள் மற்றும் நிரிதலைகள் பாதிக்கப்படக் கூடாது.
நிரிதலைகள் பாதிக்கப்படாமல் இரும்பை உறுதி செய்யும் வகையில் தவறாத தீரின் தாக்கினை தொடர்ந்து கண்காணிக்க வேண்டும்.	நிரிதலைகள் பாதிக்கப்படாமல் இரும்பை உறுதி செய்யும் வகையில் தவறாத தீரின் தாக்கினை தொடர்ந்து கண்காணிக்க வேண்டும்.
கரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் தீரம்திணையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் கற்றுத்தழல் பாதிக்கவாத வண்ணம் வாகனங்களை இயக்க வேண்டும்.	கரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் தீரம்திணையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் கற்றுத்தழல் பாதிக்கவாத வண்ணம் வாகனங்களை இயக்க வேண்டும்.
கரங்கப்பணிகள் முடிக்கப்பட்டவுடன் கரங்க மூடல் திட்டத்தில் உள்ளவாறு கரங்கத்தினை மூட வேண்டும்.	கரங்கப்பணிகள் முடிக்கப்பட்டவுடன் கரங்க மூடல் திட்டத்தில் உள்ளவாறு கரங்கத்தினை மூட வேண்டும்.
கரங்க நடவடிக்கைகளை முடித்தபின்னர் கரங்கப் பகுதி மற்றும் கரங்க நடவடிக்கைகளால் இடைபூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தாவரங்கள் விஸ்புகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் பகைமப்பகுதியை உருவாக்க வேண்டும்.	கரங்க நடவடிக்கைகளை முடித்தபின்னர் கரங்கப் பகுதி மற்றும் கரங்க நடவடிக்கைகளால் இடைபூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தாவரங்கள் விஸ்புகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் பகைமப்பகுதியை உருவாக்க வேண்டும்.
முழுமையான நிபந்தனைகளை கரிய பாரிவேஷ (http://parivesh.nic.in) என்கிற இணையதளத்தைப் பார்வையிடவும். மேலும் எந்தவித கற்றுத்தழல் சார்பு முறைகளுக்கு சென்சையில் உள்ள கற்றுத்தழல் மற்றும் வரை அமைக்கத்தில் ஓடுக்கிணைந்த வட்டார அலுவலகம்: 044 - 26222325 (அல்லது) தமிழ்நாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட கற்றுத்தழல் பொரியாளரை அணுகவும்.	முழுமையான நிபந்தனைகளை கரிய பாரிவேஷ (http://parivesh.nic.in) என்கிற இணையதளத்தைப் பார்வையிடவும். மேலும் எந்தவித கற்றுத்தழல் சார்பு முறைகளுக்கு சென்சையில் உள்ள கற்றுத்தழல் மற்றும் வரை அமைக்கத்தில் ஓடுக்கிணைந்த வட்டார அலுவலகம்: 044 - 26222325 (அல்லது) தமிழ்நாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட கற்றுத்தழல் பொரியாளரை அணுகவும்.


MEMBER SECRETARY
SEIAA-TN

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

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that

I. The project has been accorded Environmental Clearance.

II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.

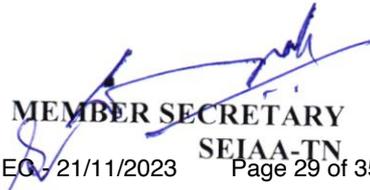
III. Environmental Clearance may also be seen on the website of the SEIAA.

IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.

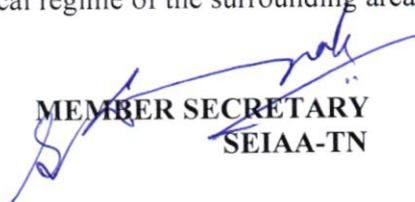
2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. **A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.**
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.


MEMBER SECRETARY
SEIAA-TN

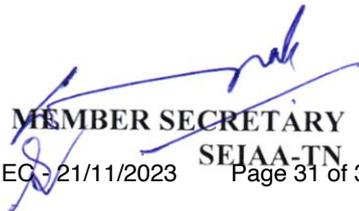
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying should be as per approved mining plan.
15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
20. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, GoI on 16.11.2009.
21. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
22. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicles and other equipment
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.


MEMBER SECRETARY
SEIAA-TN

- v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.
23. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
24. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
25. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
26. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
27. The following measures are to be adopted to control erosion of dumps:-
- i. Retention/ toe walls shall be provided at the foot of the dumps.
 - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
28. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous& other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCB.
29. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
30. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
31. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
32. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall


MEMBER SECRETARY
SEIAA-TN

- not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
33. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
 34. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
 35. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
 36. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
 37. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
 38. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
 39. Bunds to be provided at the boundary of the project site.
 40. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
 41. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
 42. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
 43. The Project Proponent shall provide solar lighting system to the nearby villages.
 44. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
 45. Safety equipments to be provided to all the employees.
 46. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai


MEMBER SECRETARY
SEJAA-TN

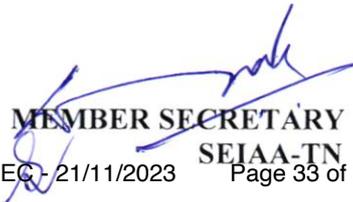
47. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
48. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
49. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
50. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
51. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
54. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
55. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
56. All the commitment made by the project proponent in the proposal shall be strictly followed.
57. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

Part B: General Conditions:

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.


**MEMBER SECRETARY
SEIAA-TN**

4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.


MEMBER SECRETARY
SEIAA-TN

15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.
16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining 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 Statutory/Government authorities shall be complied.
23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


MEMBER SECRETARY
SEIAA-TN

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 Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Villupuram District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi Spare.
9. Mail copy to regional office, MoEF&CC, Chennai
10. File Copy.

07.FILE NO.: 10381

EC GRANT DATE – 14.02.2024
“B2” CATEGORY - BLACK GRANITE QUARRY

PROJECT SITE:

The Environmental Clearance was granted to the proponent Tvl,Mani Omega Granites(P)Ltd, for mining Black Granite Quarry over an extent of 1.83.5ha of Patta Lands in S.F.Nos. 12/1(P)& etc,**Vengamur Village, Vikravandi Taluk ,Villupuram District, Tamilnadu**

ENVIRONMENT SETTING:

There is water body situated at a distance of 150M (3 Ha) and 360M (14 Ha) from ML

Area.

**E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINE REPORT
(APPRAISAL MADE BY SEAC AND ACCEPTED BY SEIAA.)**

16. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighbouring 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.
17. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC.
18. 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
19. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
20. 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.
21. 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.
22. 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.

23. 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.
24. All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full.
25. 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.

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 -1
MANI OMEAGA GRANITES PVT LTD
2/140A, Mankuttaikkadu, Morur Post, Tiruchengode Taluk, -637304

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/442571/2023 dated 06 Dec 2023. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC24B001TN132273 |
| 2. File No. | 10381 |
| 3. Project Type | New |
| 4. Category | B |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Anumanthapuram & Vengamur Black Granite Quarry Belongs to M/s. Mani Omega Granites Private Limited, Extent of 1.83.5Ha S.F.Nos. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8 of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village, Anumanthapuram & Vengamur Village, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District. |
| 7. Name of Company/Organization | MANI OMEAGA GRANITES PVT LTD |
| 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: 14/02/2024

(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.10381/EC.No:6242/2023 dated:22.12.2023

Sir/Madam,

Sub: SEIAA-TN – Existing Black Granite Quarry lease over an extent of 1.83.5 Ha at S.F.No. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8, of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village, Anumanthapuram & Vengamur Villages, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District, Tamil Nadu by M/s. Mani Omega Granites Private Limited – issue of Environmental Clearance – Regarding.

- Ref:**
1. Online Proposal No. SIA/TN/MIN/442571/2023 dt: 01/09/2023.
 2. Your Application for Environmental Clearance dated: 08.09.2023.
 3. SEIAA EC Lr.No. SEIAA-TN/F.No.5373/1(a)/EC.No.3355/2016 dated 19.07.2016.
 4. CCR obtained from IRO(SZ), MoEF&CC vide Lr. No.EP/12.1/2023-24/SEIAA/13/TN/728 dated 15.06.2023.
 5. Previously the PP applied seeking Automatic Extension vide Online Proposal No. SIA/TN/MIN/300065/2023, Dated: 10.05.2023.
 6. Minutes of the 427th meeting of SEAC held on 07.12.2023.
 7. Minutes of the 684th meeting of SEIAA held on 22 .12.2023.

Details of Minor Mineral Activity:-

This has reference to your application 1st & 2nd 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	Salient Features of the Proposal	
1.	Name of the Owner/Firm	: M/s. Mani Omega Granites Private Limited 2/140A, Mankuttaikkadu, Morur Post, Tiruchengode Taluk, Namakkal District-637304
2.	Type of quarrying	: Black Granite
3.	S.F Nos. of the quarry site	: S.F.No. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8, of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village
4.	Village in which situated	: Anumanthapuram & Vengamur
5.	Taluk in which situated	: Vikravandi (Formerly Viluppuram)
6.	District in which situated	: Viluppuram
7.	Extent of quarry (in ha.)	: 1.83.5 Ha
8.	Latitude & Longitude of all corners of the quarry site	: 12°03'49.09"N to 12°03'53.95"N 79°21'17.22"E to 79°21'23.48"E
9.	Topo Sheet No.	: 57P/08
10.	Type of mining	: Opencast mechanized method of mining.
11.	Period of Current Mine Plan	: 5 years
12.	Production (quantity in m ³)	: 16185m ³ of RoM, 3237 m ³ of Black Granite@ 20% recovery and the annual peak production should not exceed 6120 m ³ of RoM and 1224 m ³ of Black Granite@ 20% recovery
13.	Depth of Mine	: 20m BGL
14.	Depth of water table	: 55m BGL
15.	Man Power requirement per day:	: 36 Nos.
16.	Water requirement: 1. Drinking water 2. Dust suppression 3. Green belt	: 1.5 kLD 0.4 kLD 0.5 kLD 0.6 kLD

MEMBER SECRETARY
SEIAA-TN

17.	Power requirement		TNEB power supply & 49200 litre of HSD for DG set
18.	Precise area communication issued by Industries Dept, Govt of Tamil Nadu	:	G.O(3D) No.25 Industries (MMB.1) Department Dated:23.02.2011
19.	Mining Plan/ Scheme of mining approved by Dept. of Geology & Mining	:	Letter No.6861/MM5/2018 Dates:24.09.2018 Rc.No.1152/MM4/2023 Dated: 24.02.2023.
20.	500m Cluster Letter issued by Dept. of Geology & Mining		Rc.No.B/G&M/556/2015 Dated: 03.03.2023.
21.	VAO Certificate Regarding Structures within 300m Radius		Letter Dated 16.08.2023
22.	Project Cost (excluding EMP cost)	:	Rs.2,14,31,000/-
23.	EMP cost (in Rs. Lakh).	:	Capital cost - Rs.30,87,450/- Recurring Cost/Annum – 11.59.920/- (5% inflation in every year)
24.	CER cost (in Rs. Lakh).	:	Rs. 10.0 Lakh as accepted by the PP
<p><u>Validity:</u> This Environmental Clearance is accorded for the quantity of 16185m³ of RoM, 3237 m³ of Black Granite@ 20% recovery upto the restricted depth of 20m BGL and the annual peak production should not exceed 6120 m³ of RoM and 1224 m³ of Black Granite@ 20% recovery as per the approved mining plan and 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</p>			

AFFIDAVIT FURNHSED BY THE PROPONENT

We, M/s. Mani Omega Granites Private Limited, residing at No. 2/140A, Mankuttaikkadu, Morur Post, Tiruchengode Taluk Namakkal District, Tamil Nadu State – 637 304, solemnly declare and sincerely affirm that:

We have apply for getting Environment Clearance to SEIAA, Tamil Nadu State for quarry lease for quarrying of Black Granite Quarry Project at over an Extent of 1.83.5Ha of Patta land in S.F. Nos. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8 of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village,

**MEMBER SECRETARY
SEIAA-TN**

Anumanthapuram & Vengamur Village, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District, Tamil Nadu State.

1. We swear to state and confirm that within 10km area of the quarry site, We have applied for environment clearance, none of the following is situated:
 - a. Protected areas notified under the wild life (Protection) Act, 1972,
 - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and Control of Pollution) Act, 1974,
 - c. Eco-Sensitive areas as notified.
 - d. Interstate Boundary
2. We will spend the amount of Rs.10 Lakhs (for two school) towards Corporate Environment Responsibility (Revised CER) for the following activities to the Panchayat Union Middle School, Anumanthapuram Village, Anumanthapuram & Vengamur Villages, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District before commencement of quarrying activities.

3. Panchayat Union Middle School, Vengamur, Villupuram District.

Sl. No.	Description	Cost break up
1	Renovation of Toilets and its Maintenance	2,00,000/-
2	Painting of Classrooms and laying of Granite flooring.	2,50,000/-
3	Carrying out plantation in the School Boundary @ 100 Nos	20,000/-
4	Providing Environmental related books to the school	30,000/-
TOTAL		5,00,000/-

4. Panchayat Union Middle School, Anumanthapuram, Villupuram District.

Sl. No.	Description	Cost break up
1	Providing Smart Class Room	1,50,000/-
1	Renovation of Toilets and its Maintenance	1,50,000/-
2	Renovation of Head Master room and its Maintenance	1,00,000/-
3	Carrying out plantation in the School Boundary @ 100 Nos	50,000/-
4	Providing Environmental related books to the school	50,000/-
TOTAL		5,00,000/-

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

I. Existing Quarries:

S. No.	Name of the Lessee / Permit holder	Name of the Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks

MEMBER SECRETARY
SEIAA-TN

1.	Gem granites Ltd., 76 Chathedral Road, Chennai- 86	Black Granite	Vikravand i vengamur Hanumant hapuram	4/4B 52/3 52/4 52/5 52/6 52/7 52/8 52/9 52/10 59/1 59/3 59/4A 59/4B 59/4C 59/6B 59/9 59/13B 59/14 59/15 59/16 56/17 59/18 59/19 59/22 59/23 59/24 59/10A 59/10B 59/11 59/12 59/13A	0.57.0 0.35.0 0.04.0 0.01.0 0.01.0 0.01.0 0.01.0 0.01.0 0.04.0 0.13.5 0.04.0 0.11.0 0.03.0 0.08.0 0.06.5 0.05.0 0.05.0 0.07.5 0.05.0 0.04.0 0.05.0 0.05.5 0.04.5 0.05.0 0.05.5 0.04.0 0.05.0 0.11.0 0.10.0 0.06.5 2.41.5	19.06.2009 To 18.06.2029	Non operation For the Period from 2013 to till date
2.	M/s. Mani Omega Granite (P) Ltd. No. 2/140A, Mankuttaikkadu, Morur Post, Trichengode Taluk, Namakkal	Black Granite	Vikravand i vengamur Hanumant hapuram	12/1(P), 12/3(P), 12/4(P), 12/5, 12/6, 12/7 12/8 59/7B (P) 59/8B (P) 60/2 61/3A1	0.23.0 0.03.0 0.15.0 0.01.0 0.16.0 0.16.0 0.20.0 0.19.0 0.23.0 0.30.0 0.17.5 1.83.5	25.05.2011 To 24.05.2031	-

II. Proposed Quarries:

S. No.	Name of the Lessee / Permit holder	Name of the Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks
--------	--	-------------------------	-------------------------	-------------	------------------------	-----------------	---------

MEMBER SECRETARY
SEIAA-TN

-----Nil-----

III. Abandoned quarries

S. No.	Name of the Lessee / Permit holder	Name of the Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks
-----Nil-----							

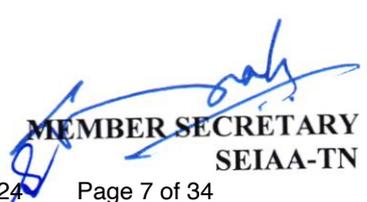
5. There will not be hindrance or disturbance to the people living during quarrying activities and transportation of the mineral.
6. There is no approved habitation within 300m radius from the periphery of our quarry.
7. We swear that afforestation will be carried out during the course of quarrying operation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

REVISED EMP BUDGET

Activities	Capital Cost	Recurring Cost
Air Environment	3087450	1159920
Noise Environment		
Waste Management		
Mine Closure		
Implementation of EC, Mining Plan & DGMS Condition- Public hearing commitment		
CER		

EMP BUDGET SUMMARY BREAKUP YEAR WISE UP TO LEASE PERIOD

Year	Total Cost
2023-24	₹ 42,47,370/-
2024-25	₹ 12,17,916/-
2025-26	₹ 13,56,612/-


MEMBER SECRETARY
SEIAA-TN

2026-27	₹ 15,02,242/-
2027-28	₹ 15,77,355/-
2028-29	₹ 31,99,947/-
2029-30	₹ 18,16,220/-
2030-31	₹ 19,84,831/-

Note: Cost inclusive of 5% cost inflation anticipated every year

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

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

The Project Proponent has submitted a copy of the letter obtained from the Deputy Director, Department of Geology & Mining, Viluppuram, District. In his/her Letter Rc.No.B/G&M/556/2015 dated:03.03.2023 he/she has stated the details of other quarries (Proposed / Existing / Abandoned 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 Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks
1.	Gem granites Ltd., 76 Chathedral Road, Chennai- 86	Black Granite	Vikravand i vengamur Hanumant hapuram	4/4B 52/3 52/4 52/5 52/6 52/7 52/8 52/9 52/10 59/1 59/3 59/4A 59/4B 59/4C 59/6B 59/9 59/13B 59/14 59/15 59/16 56/17 59/18 59/19	0.57.0 0.35.0 0.04.0 0.01.0 0.01.0 0.01.0 0.01.0 0.01.0 0.01.0 0.04.0 0.13.5 0.04.0 0.11.0 0.03.0 0.08.0 0.06.5 0.05.0 0.05.0 0.07.5 0.05.0 0.04.0 0.05.0 0.05.5	19.06.2009 To 18.06.2029	Non operation For the Period from 2013 to till date

**MEMBER SECRETARY
SEIAA-TN**

				59/22	0.04.5		
				59/23	0.05.0		
				59/24	0.05.5		
				59/10A	0.04.0		
				59/10B	0.05.0		
				59/11	0.11.0		
				59/12	0.10.0		
				59/13A	0.06.5		
					2.41.5		
2.	M/s. Mani Omega Granite (P) Ltd. No. 2/140A, Mankuttaikkadu, Morur Post, Trichengode Taluk, Namakkal	Black Granite	Vikravandi vengamur Hanumant hapuram	12/1(P), 12/3(P), 12/4(P), 12/5, 12/6, 12/7 12/8 59/7B (P) 59/8B (P) 60/2 61/3A1	0.23.0 0.03.0 0.15.0 0.01.0 0.16.0 0.16.0 0.20.0 0.19.0 0.23.0 0.30.0 0.17.5 1.83.5	25.05.2011 To 24.05.2031	-

II. Proposed Quarries:

S. No.	Name of the Lessee / Permit holder	Name of the Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks
-----Nil-----							

III. Abandoned quarries

S. No.	Name of the Lessee / Permit holder	Name of the Minerals	Village & S.F. No	S.F. Nos	Extent in Hects.	Lease Period	Remarks
-----Nil-----							

DISCUSSION BY SEIAA AND THE REMARKS: -

Existing Black Granite Quarry lease over an extent of 1.83.5 Ha at S.F.No. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8, of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village, Anumanthapuram & Vengamur Villages, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District, Tamil Nadu by M/s. Mani Omega Granites Private Limited - Environment Clearance for next scheme of mining.

The subject was placed in this 684th meeting of Authority held on 22.12.2023. The Authority noted that the subject was placed in the 427th meeting of SEAC held on 07.12.2023 and the SEAC has furnished its recommendations for the grant of Environmental Clearance to the project subject to the conditions stated therein.

MEMBER SECRETARY
SEIAA-TN

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 restricted quantity of 16185m³ of RoM, 3237 m³ of Black Granite@ 20% recovery upto the restricted depth of 20m BGL and the annual peak production should not exceed 6120 m³ of RoM and 1224 m³ of Black Granite@ 20% recovery** as per the approved mining plan. This is also subject to the standard conditions as per Annexure - (I) of SEAC minutes, other normal conditions stipulated by MOEF&CC & all other specific conditions as recommended by SEAC 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 5 years and also during the mine plan period, till the project life so as to review the EC conditions and to ensure that they have all been adhered to and implemented.
3. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life.
4. There should be regular monitoring of air quality, water quality, ground water level and noise quality and reports regarding the same should be submitted to TNPCB, SEIAA & IRO of MoEF&CC once in every 6 months.
5. The proponent shall strictly adhere to the mining plan and half yearly and annual returns shall be submitted to the Director of Geology and Mining Department with copy marked to TNPCB, SEIAA & IRO of MoEF&CC.
6. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC.
7. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP and as per the amount committed and approved in EC for EMP. Status of progressive mine closure and green belt implementation should be included in the half yearly compliance report submitted to TNPCB, SEIAA & IRO of MoEF&CC.
8. 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


MEMBER SECRETARY
SEIAA-TN

prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.

9. 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.

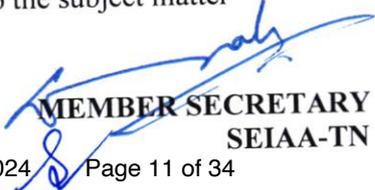
Annexure 'A'

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


MEMBER SECRETARY
SEIAA-TN

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.
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.


MEMBER SECRETARY
SEIAA-TN

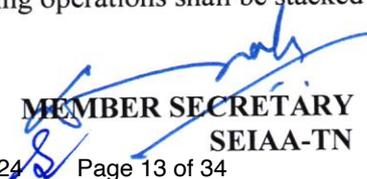
15. Regular monitoring of ground water level and water quality shall be carried out around the mine area during mining operation. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
16. Garland drains 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 mycorrizal 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 mycorrizal 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


MEMBER SECRETARY
SEIAA-TN

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 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.


MEMBER SECRETARY
SEIAA-TN

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.
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.


MEMBER SECRETARY
SEIAA-TN

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

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.


MEMBER SECRETARY
SEIAA-TN

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 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.

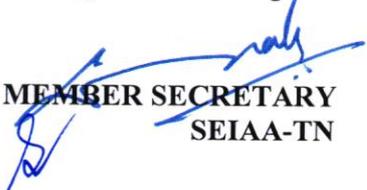
65. The proponent shall ensure that the mine closure plan is followed as per the mining plan and the mine restoration should be done with native species, and site restored to near original status. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure 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


MEMBER SECRETARY
SEIAA-TN

deep root system, fix atmospheric nitrogen and improve soil productivity. Species selected should have the ability to tolerate altered pH and toxicity of the site. They should be capable of meeting requirements of local people in regard to fuel fodder and should be able to attract birds, 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 wherever 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 species 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. Top soils should have necessary physical, chemical, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broadcast 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.


MEMBER SECRETARY
SEIAA-TN

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 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, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.
- 2) The proponent shall provide the particulars for carrying out the plantation of 1140 Nos. of tall saplings of native species within and outside the proposed mining area as committed before obtaining CTO from TNPCB.
- 3) The PP shall ensure that the path is available for the accessibility of the public to the Govt Poramboke land located within the mine lease area.
- 4) The PP shall ensure the safety provisions as stipulated in the DGMS Circular No:02, dated. 29.11.2019 while using the Diamond Wire Saw machines in the proposed quarry operation.
- 5) The PP shall adopt only non-explosive technique (Rock Breaking Compounds) for the fracturing of granite blocks ensuring the eco-friendly mining operation in the proposed quarry.
- 6) To ensure the conditions of occupational safety, health & welfare status of persons working in the mine, the PP shall annually conduct occupational health survey to determine prevalence of Noise Induced Hearing Loss (NIHL) due to the operation of Diamond Wire Saw cutting & other HEMMs deployed in the mine and to prepare a plan for hearing conservation programme by involving anyone of the reputed institutes - Regional Occupational Health Centre (Southern) of ICMR-National Institute of Occupational Health, Bengaluru, National Institute of Miners' Health, Nagpur and Anna University, Chennai.
- 7) The PP shall properly provide all the required welfare amenities near quarry such as Drinking water, Rest Shelter, Canteen, Toilets, etc for the persons to be employed in the proposed

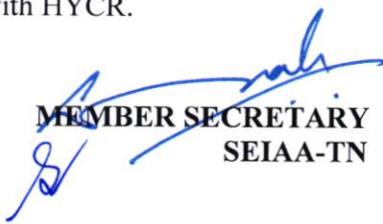
**MEMBER SECRETARY
SEIAA-TN**

quarry before the execution of lease, in accordance with the provisions of the Mines Rules, 1955.

- 8) For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall during the 4th year or when the depth exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 9) As accepted by the Project Proponent the CER cost of **Rs.10 Lakh** to be spent for the committed activities at the two Government Schools before obtaining CTO from TNPCB.

ANNEXURE-I

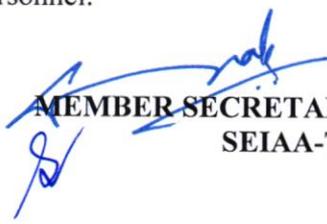
- 1) The PP shall inform send the 'Notice of Opening' of the quarry to the Director of Mines Safety, Chennai Region before obtaining the CTO from the TNPCB.
- 2) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, 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 construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
- 6) Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.


MEMBER SECRETARY
SEIAA-TN

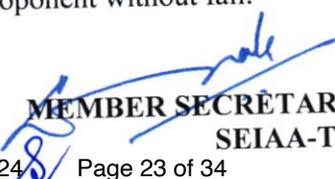
- 7) The proponent shall install the 'S3 (or) G2' type of fencing all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
- 8) The Proponent shall submit a conceptual 'Slope Stability Action Plan' incorporating the benches & accessible haul road approved by the concerned AD (Mines) for the proposed quarry to the DEE/TNPCB at the time of obtaining the CTO.
- 9) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination in the DGMS approved OHS Clinics/Hospitals as per the DGMS Circular No. 01 of 2011 before they are engaged in mining activities.
- 10) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are provided with adequate PPEs before engaged in mining operations.
- 11) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
- 12) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.
- 13) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
- 14) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
- 15) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.
- 16) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
- 17) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
- 18) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.


MEMBER SECRETARY
SEIAA-TN

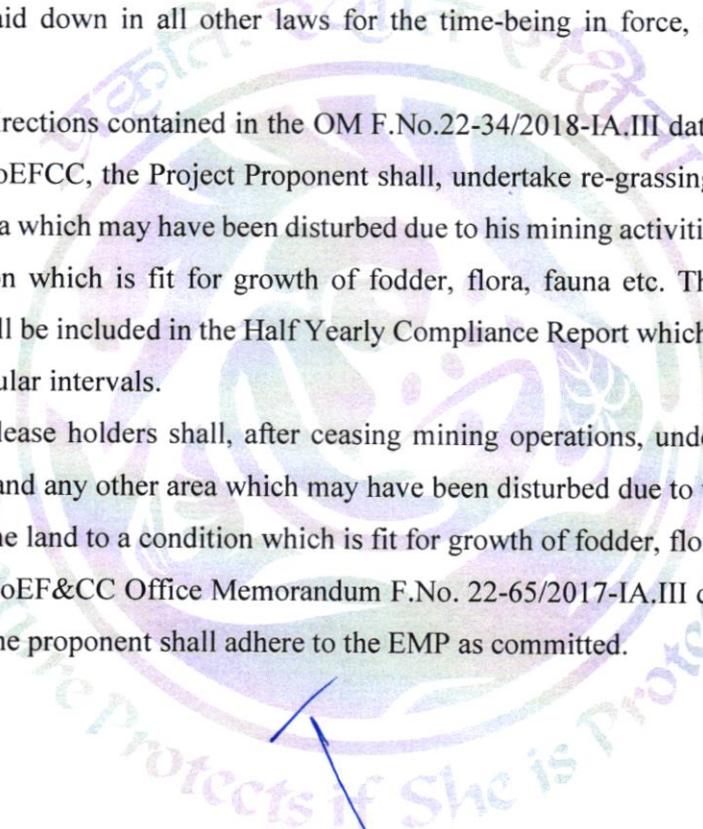
- 19) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 20) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 21) **Noise and Vibration Related:** (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 22) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
- 23) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 24) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 25) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 26) The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.


MEMBER SECRETARY
SEIAA-TN

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


MEMBER SECRETARY
SEIAA-TN

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



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>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 tomentosa</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 sebumum</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	மகிழ்மரம்
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	புங்கம்

MEMBER SECRETARY
SEIAA-TN

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	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>	Marupungan, 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 Green Background and White Letters)

-----சுரங்கம்

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

புகைம பகுதி வளர்ச்சி மேம்பாட்டுக்கான சுரங்கத் திட்டம்	குவாரியின் எல்லையைச் சுற்றி வேலி அமைக்க வேண்டும் சுரங்கப்பாதையின் ஆழம் தரைமட்டத்திலிருந்து _____ மீட்டர்க்கு மிகாமல் இருக்க வேண்டும். காற்றில் மாசு ஏற்படாதவாறு சுரங்க பணிகளை மேற்கொள்ள வேண்டும்.
நடப்பட்டு பராமரிக்கப்படவேண்டிய மரங்கள் எண்ணிக்கை:	வாகனங்கள் செல்லும் பாதையில் மாசு ஏற்படாத அளவிற்கு தண்ணீரை முறையாக தண்ணீர் வாரிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும். இரைச்சல் அளவையும் தூசி மாசுபாட்டையும் குறைப்பதற்காக குவாரியின் எல்லையை சுற்றி அடர்த்தியான பசுமை பகுதியை ஏற்படுத்த வேண்டும்.
சுரங்கத்தில் வெடி வைக்கும்பொழுது நிலைநிலைகள் ஏற்படாதவாறும் மற்றும் சுரங்க பறக்காதவாரும் பாதுகாப்பு நடவடிக்கைகளை உன்னிப்பாக செயல்படுத்தப்பட வேண்டும்.	
சுரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டி.சி.பி.எஸ் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற்கொள்ள வேண்டும்.	
சுரங்க சட்ட விதிகள் 1955ன் கீழ் சுரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு சுகாதாரமுள்ள கழிப்பறை வசதிகளை செய்து தர வேண்டும்.	
கிராமம் அல்லது பஞ்சாயத்து வழியாக வாகனங்கள் செல்லும் சாலையை தொடர்ந்து நன்கு பராமரிக்க வேண்டும்.	
சுரங்கப்பணிகளால் அருகில் உள்ள விவசாயப் பணிகள் மற்றும் நீர்நிலைகள் பாதிக்கப்படக் கூடாது.	
நீர்நிலைகள் பாதிக்கப்படாமல் இருப்பதை உறுதி செய்யும் வகையில் நிலத்தடி நீரின் தரத்தினை தொடர்ந்து கண்காணிக்க வேண்டும்.	
சுரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் சிரமத்தினையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் சுற்றுச்சூழல் பாதிக்கவாத வண்ணம் வாகனங்களை ஐயக்க வேண்டும்.	
சுரங்கப்பணிகள் முடிக்கப்பட்டவுடன் சுரங்க முடல் திட்டத்தில் உள்ளவாறு சுரங்கத்தினை மூட வேண்டும்.	
சுரங்க நடவடிக்கைகளை முடித்தபின்னர் சுரங்கப் பகுதி மற்றும் சுரங்க நடவடிக்கைகளால் இடையூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தாவரங்கள் விலங்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் புகைமப்பகுதியை உருவாக்க வேண்டும்.	
முழுமையான நிபந்தனைகளை அறிய பாரிவேஷ் (http://parivesh.nic.in) என்கிற இணையதளத்தைப் பார்வையிடவும். மேலும் எந்தவித சுற்றுச்சூழல் சார்ந்த புகார்களுக்கு சென்னையில் உள்ள சுற்றுச்சூழல் மற்றும் வன அமைச்சகத்தின் ஓசூர்ச்சினைத் திட்டார அலுவலகம்: 044 - 28222325 (அல்லது) தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் மாவட்ட சுற்றுச்சூழல் பொறியாளரை அணுகவும்.	

MEMBER SECRETARY
SEIAA-TN

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

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - I. The project has been accorded Environmental Clearance.
 - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - III. Environmental Clearance may also be seen on the website of the SEIAA.
 - IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.

2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.

MEMBER SECRETARY
SEIAA-TN

13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying should be as per approved mining plan.
15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
20. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, GoI on 16.11.2009.
21. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
22. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicles and other equipment
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
 - v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.


MEMBER SECRETARY
SEIAA-TN

23. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
24. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
25. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
26. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
27. The following measures are to be adopted to control erosion of dumps:-
 - i. Retention/ toe walls shall be provided at the foot of the dumps.
 - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
28. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous& other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCCB.
29. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
30. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
31. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
32. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that

MEMBER SECRETARY
SEIAA-TN

- the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
33. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
 34. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
 35. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
 36. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
 37. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
 38. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
 39. Bunds to be provided at the boundary of the project site.
 40. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
 41. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
 42. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
 43. The Project Proponent shall provide solar lighting system to the nearby villages.
 44. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
 45. Safety equipments to be provided to all the employees.
 46. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai
 47. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.


MEMBER SECRETARY
SEIAA-TN

48. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
49. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
50. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
51. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
54. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
55. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
56. All the commitment made by the project proponent in the proposal shall be strictly followed.
57. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
58. The Project proponent has to strictly comply the outcome/direction of the Hon'ble NGT, Principle Bench, New Delhi in the 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).

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.

MEMBER SECRETARY
SEIAA-TN

3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.


MEMBER SECRETARY
SEIAA-TN

15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.
16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining 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 Statutory/Government authorities shall be complied.
23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


MEMBER SECRETARY
SEIAA-TN

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 Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Viluppuram District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi Spare.
9. Mail copy to regional office, MoEF&CC, Chennai
10. File Copy

08.FILE NO: 10160

EC GRANT DATE – 22.03.2024
“B2” CATEGORY - BLACK GRANITE QUARRY
QUARRY IN OPERATION SINCE 28.12.1995

PROJECT SITE:

The Environmental Clearance is granted to the proponent Tvl.TAMIN, for mining Black Granite Quarry over an extent of 4.14.8ha of Govt Land in S.F.No.104/1A(P), **Udaiyanatham Village, Vikravandi Taluk, Villupuram District**, Tamilnadu

ENVIRONMENT SETTING:

There is a waterbody near ML area.

E.C.GRANTED SUBJECT TO THE CONDITIONS OF MITIGATION MEASURES/COMPLAINEE REPORT (APPRAISAL MADE BY DEAC AND ACCEPTED BY DEIAA.)

1. The proponent shall ensure that the activity does not disturb the water bodies, neighboring open wells, bore wells and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area nor effect the water quality and water quantity in the water sources.
2. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
3. 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.
4. 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.
5. 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.
6. Ground & surface water in and around the project area should be monitored frequently and water quality and quantity reports should be submitted every year to IRO of MoEF&CC & TNPCB.
7. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to IRO of MoEF&CC & TNPCB.
8. 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.

9. Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
10. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
11. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
12. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low-lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff.
13. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
14. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.



सत्यमेव जयते

799

File No: 10160

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)

Annexure A99



Dated 22/03/2024



To,

Sudeep Jain IAS
M/S. TAMIL NADU MINERALS LIMITED
M/s. Tamil Nadu Minerals Limited (Government of Tamil Nadu undertaking) 31 Kamarajar Salai,
Chepauk, Chennai, Tamil Nadu., Chennai, CHENNAI, TAMIL NADU, TWAD House, 600005
tamin@tamingranites.com

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

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/TN/MIN/434072/2023 dated 23.06.2023 for Grant of prior Environment Clearance(EC) to the project under the provision of the EIA Notification 2006- and as amended thereof.

Ref:

- Online Proposal No. SIA/TN/MIN/434072/2023, Dated:23.06.2023.
- Your Application for Environmental Clearance dated:23.06.2023.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23C0108TN5714093N
(ii) File No.	10160
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Udaiyanatham Black Granite Quarry
(viii) Name of Company/Organization	M/S. TAMIL NADU MINERALS LIMITED
(ix) Location of Project (District, State)	VILLUPURAM, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 12/03/2024. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The SEAC, based on information submitted viz Form-1 (Part A, B and C)/EIA & EMP Reports etc., & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.
6. The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEAC hereby accords Environment Clearance for the instant proposal to Mr.Sudeep Jain IAS, under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (2)
7. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
8. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
9. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
10. **Salient features of the proposal are as follows:**

Sl. No	Details of the Proposal	Data Furnished
1.	Name of the Owner/Firm	M/s. Tamil Nadu Minerals Limited, No.31, Kamarajar Salai, Chepauk, Chennai-600 005
2.	Type of quarrying	Black Granite
3.	S.F No. of the quarry site	104/1A(Part)
4.	Village in which situated	Udaiyanatham
5.	Taluk in which situated	Vikravandi
6.	District in which situated	Villupuram
7.	Extent of quarry (in ha.)	4.14.8Ha
8.	Latitude & Longitude of all corners of the quarry site	12°03'13.30875"N to 12°03'26.35871"N 79°20'15.52386"E to 79°20'29.38890"E
9.	Topo Sheet No.	57 P/8
10.	Type of mining	Opencast Semi-mechanized Mining
11.	Period of current mine plan	5 Years
12.	Production (Quantity in m ³)	The lease period is 20 years. The mining plan is for the period of five years & the production should not exceed 37,500m ³ of ROM (3,750m ³ of Multi-Colour Granite@ Recovery 10% + 33,750m ³ of Granite Waste@ 90%) with an ultimate depth of mining is 21.5m from the top of the hill
13.	Depth of mining	21.5m from the top of the hill
14.	Depth of water table	15.1m
15.	Man Power requirement	35 Employees

16.	Water requirement: Drinking water & Domestic purpose. Wire Saw cutting purpose Dust suppression Green belt	1.5 KLD 0.5 KLD 0.3 KLD 0.3 KLD 0.4 KLD
17.	Power requirement	TNEB -
18.	Precise area communication approved by the Industries, Investment Promotion & Commerce (MME.1) Department.	Letter No.3644339/MME.1/2022-1, Dated:25.01.2023.
19.	Mining Plan approved by Commissioner, Department of G&M.	Rc. No. 4593/MM4/2022 Dated:11.05.2023.
20.	500m cluster letter issued by Deputy Director, Dept. of Geology and Mining with date	Rc.No.B/G&M/42/2022, Dated:04.08.2023.
21.	VAO Certificate Regarding Structures within 300m Radius	Letter Dated: 08.08.2023
22.	Project Cost (excluding EMP cost)	Rs. 97,92,000/-
23.	EMP cost	Rs.108.32 Lakhs
24.	CER cost	Rs.5,00,000
25.	<p>Validity: This Environmental Clearance is accorded for the quantity of 37,500m³ of RoM [3,750m³ of Multi-colour Granite @ Recovery 10% + 33,750m³ of Granite waste @ 90%] up to a depth of 21.5m from the Top of the hill and the annual peak production should not exceed 15,000m³ of RoM [1,500m³ of Multi-colour Granite @ Recovery 10% + 13,500m³ 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</p>	

12. General Instructions:

- 1.The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.
 2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
 3. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
 5. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 6. The Regional Office of this SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 7. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010
- This issue with an approval of the Competent Authority. For information on deliberations, refer to the minutes of SEAC and SEIAA available in the PARIVESH Portal.

3.

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 – 34.1. 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.

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

S. No	EC Conditions
1.1	<p>SEIAA STANDARD</p> <p>a) EC Compliance:</p> <p>1. The Environmental Clearance is accorded based on the assurance from the project proponent that there will be full and effective implementation of all the undertakings given in the Application Form, Pre-feasibility Report, mitigation measures as assured in the Environmental Impact Assessment/ Environment Management Plan and the mining features including Progressive Mine Closure Plan as submitted with the application.</p> <p>2. All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full.</p> <p>3. The proponent shall submit Compliance Reports on the status of compliance of the stipulated EC conditions including results of monitored data. It shall be sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment Authority (SEIAA).</p> <p>4. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.</p>

S.No	EC Conditions
	<p>b) Applicable Regulatory Frameworks:</p> <p>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</p> <p>any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter</p> <p>c) Safe mining Practices:</p> <p>6. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission of slope stability study conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc and ensure strict compliance and implementation of bench wise recommendations/action plans as recommended in the scientific slope stability study.</p> <p>7. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically sensitive and archeologically important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on specific local conditions.</p> <p>d) Water Environment – Protection and mitigation measures:</p> <p>8. The proponent shall ensure that the activity does not disturb the water bodies, neighboring open wells, bore wells and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area nor effect the water quality and water quantity in the water sources.</p> <p>9. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.</p> <p>10. Quality of water discharged from the quarry should be monitored regularly as per the norms of State Pollution Control Board and included in the Compliance Report.</p> <p>11. Rain Water Harvesting facility should be installed as per the prevailing provisions of TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.</p> <p>12. Regular monitoring of flow rates and water quality upstream and downstream of the springs and</p>

S. No	EC Conditions
	<p>perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.</p> <p>13. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.</p> <p>e) Air Environment – Protection and mitigation measures:</p> <p>14. The activity should not result in CO₂ release and temperature rise and add to micro climate alternations.</p> <p>15. The proponent shall ensure that Monitoring is carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads.</p> <p>f) Soil Environment – Protection and mitigation measures:</p> <p>16. The proponent shall ensure that the operations neither result in loss of soil biological properties and nutrients nor deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community and result in eutrophication of soil and water. Further, the activities should not disturb the soil properties and seed and plant growth. Soil amendments as required to be carried out, to improve soil health.</p> <p>17. Bio remediation using microorganisms should be carried out to restore the soil environment to enable carbon sequestration.</p> <p>18. The proponent shall ensure that the mine restoration is done using mycorrhizal VAM, vermin-composting, Biofertilizers and the topsoil is protected and used in planting activities, site restoration and establishment of green belt in the area to ensure soil health and biodiversity conservation.</p> <p>19. The top soil shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geotextile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.</p> <p>20. Activities should not result in invasion of site by exotic and alien plant and animal species and disturb the native biodiversity and soil micro flora and fauna.</p> <p>g) Noise Environment – Protection and mitigation measures:</p> <p>21. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines. The activity of the proponent should not effect</p>

S.No	EC Conditions
	<p>the biological clock of the villages resulting in stress, sleeping disorders affecting health.</p> <p>h) Biodiversity - Protection and mitigation measures:</p> <p>22. The proponent should ensure that there is no disturbance to the agriculture plantations, social forestry plantations, waste lands, forests, sanctuary or national parks. There should be no impact on the land, water, soil</p> <p>and biological environment and other natural resources due to the mining activities.</p> <p>23. No trees in the area should be removed and all the trees numbered and protected. In case trees fall within the proposed quarry site the trees may be transplanted in the Greenbelt zone. The proponent shall ensure that the activities in no way result in disturbance to forest and trees in vicinity. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem. The proponent shall ensure that the activities do not disturb the resident and migratory birds. The proponent shall ensure that the activities do not disturb the vegetation and wildlife in the adjoining reserve forests and areas around. Also, the activities should not disturb the agro biodiversity, agro farms, green lands and grazing fields of all types. Actions to be taken to promote agroforestry, mixed plants to support biodiversity conservation in the mine restoration effort.</p> <p>24. The proponent shall ensure that all mitigation measures listed in the EIA/EMP are taken to protect the biodiversity and natural resources in the area.</p> <p>i) Climate Change:</p> <p>25. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.</p> <p>26. Operations should not result in GHG releases and extra power consumption leading to Climate Change.</p> <p>27. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.</p> <p>28. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.</p> <p>29. Mining activity should be flood proof with designs and the drainage, pumping techniques shall ensure climateproofing and socio-economic wellbeing in the area and vicinity.</p> <p>j) Reserve Forests & Protected Areas:</p> <p>30. The activities should provide nature based support and solutions for forest protection and wildlife conservation.</p> <p>31. The project activities should neither result in forest fires, encroachments nor create forest fragmentation and disruption of forest corridors and alter the geodiversity and geological heritage of the area.</p>

S.No	EC Conditions
	<p>32. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands.</p> <p>33. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation.</p> <p>34. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behavior of wildlife and flora.</p> <p>35. The activities should support and recognize the rights and roles of indigenous people and local communities and also support sustainable development.</p> <p>36. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds.</p> <p>37. The project activities should not result in changes in forest structure, habitats and genetic diversity within forests.</p> <p>k) Green Belt Development:</p> <p>38. The proponent shall ensure that in the green belt development more indigenous trees species as suggested in Appendix of SEAC Minutes are planted and that the area is restored and rehabilitated with native trees .</p> <p>l) Workers and their protection:</p> <p>39. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc.</p> <p>40. The proponent has to provide insurance protection to the workers and the working hours and wages shall be implemented/enforced as per the Mines Act, 1952 in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.</p> <p>m) Transportation:</p> <p>41. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a bypass road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of 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</p>

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

S.No	EC Conditions
	<p>topsoil should be immediately used in the area of the for land form reconstruction, to pre mining conditions.</p> <p>49. Over burdens may be analyzed and tested for soil characteristics and used in the site for revegetation. Wherever possible seeds, rhizome, bulbs, etc., of pioneering spices should be collected, preserved and used in restoring the site. Native grasses seeds may be used as colonizers and soil binders, to prevent erosion and allow diverse self- sustaining plant communities to establish. Grasses may offer superior tolerance to drought, and climatic stresses.</p> <p>50. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoil should have necessary physical, 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. 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. Efforts should to taken to aesthetically improve the mine site. Action taken for restoration of the site should be specifically mentioned in the EC compliances</p>

2. Seiaa Specific

S.No	EC Conditions
2.1	<ol style="list-style-type: none"> 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 5 years and also during the mine plan period, till the project life so as to review the EC conditions and to ensure that they have all been adhered to and implemented. 3. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life. 4. There should be regular monitoring of air quality, water quality, ground water level and noise quality and reports regarding the same should be submitted to TNPCB, SEIAA & IRO of MoEF&CC once in every 6 months. 5. The proponent shall strictly adhere to the mining plan and half yearly and annual returns shall be submitted to the Director of Geology and Mining Department with copy marked to TNPCB, SEIAA & IRO of MoEF&CC. 6. Ground & surface water in and around the project area should be monitored frequently and water quality and quantity reports should be submitted every year to IRO of MoEF&CC & TNPCB. 7. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to IRO of MoEF&CC & TNPCB. 8. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP and as per the amount committed and approved in EC for EMP. Status of progressive mine closure and green belt implementation should be included in the half yearly compliance report submitted to TNPCB, SEIAA & IRO of MoEF&CC.

S.No	EC Conditions
	<p>9. As per the OM vide F. No. IA3-22/1/2022-IA-III [E- 172624] Dated: 14.06.2022, the Project Proponents are directed to submit the six-monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.</p> <p>10. The amount allocated for EMP should be kept in a separate account and both the capital and recurring expenditures should be done year wise for the works identified, approved and as committed. The work & Expenditure made under EMP should be elaborated in the bi-annual compliance report submitted and also should be brought to the notice of IRO of MoEF&CC, TNPCB and other concerned authorities during inspections.</p> <p>11. The project proponent shall store/ the granite waste generated within the earmarked area of the project site for mine closure as per the approved mining plan.</p>

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S.No	EC Conditions
1.1	The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
1.2	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.3	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.4	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
1.5	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
1.6	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.7	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
1.8	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
1.9	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.10	Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification,

S.No	EC Conditions
	2006 and its amendments therein

2. Air Quality Monitoring And Mitigation Measure

S.No	EC Conditions
2.1	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB
2.2	Transportation of mineral, to the extent if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
2.3	Major approach roads shall be black topped and properly maintained.
2.4	PP to install solar lights along the road used for transportation of mineral to avoid the accidents at night and also seek its maintenance.
2.5	The transportation of mineral shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the mineral through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
2.6	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
2.7	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources with time bound action plan.
2.8	Post environmental closure third party monitoring by reputed instituted in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuos AQMS, site specific water regime. Also third party shall analyses the implementation of river diversion, meeting to the requirement of project report.

3. Water Quality Monitoring And Mitigation Measures

S.No	EC Conditions
3.1	The monitoring data shall be uploaded on the company's website and displayed at the project site at

S.No	EC Conditions
	a suitable location. The circular No.J-20012/1/2006-1A.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.2	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
3.3	Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
3.4	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
3.5	The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
3.6	Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
3.7	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly
3.8	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
3.9	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

4. Noise And Vibration Monitoring And Prevention

S.No	EC Conditions
4.1	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
4.2	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

5. Mining Plan

S.No	EC Conditions
5.1	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
5.2	No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC)/SEIAA-TN.
5.3	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to mineral mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
5.4	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
5.5	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
5.6	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

6. Land Recalvation

S.No	EC Conditions
6.1	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
6.2	Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay

S.No	EC Conditions
	soil/suitable material.
6.3	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
6.4	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
6.5	Native tree species shall be selected and planted over areas affected by subsidence.
6.6	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

7. Public Hearing And Human Health Issues

S.No	EC Conditions
7.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
7.2	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
7.3	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
7.4	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
7.5	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
7.6	Implementation of the time bound action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the time bound action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

S.No	EC Conditions
7.7	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
7.8	PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
7.9	PP must ensure an emergency action plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)
7.10	PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone with time bound action plan
7.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10 km radius

8. Corporate Environment Responsibility

S.No	EC Conditions
8.1	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
8.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
8.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
8.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
8.5	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority

9. Miscellaneous

S.No	EC Conditions
9.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
9.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
9.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
9.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
9.6	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
9.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the State Expert Appraisal Committee.
9.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC)/SEIAA-TN.
9.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
9.11	The Ministry/SEIAA-TN may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
9.12	The Ministry/SEIAA-TN reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
9.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
9.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention

S.No	EC Conditions
	& Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
9.15	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.
9.16	Compensation of the land acquired for the project shall be settled as per the R&R Policy. Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
9.17	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
9.18	The illumination and sound at night 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. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours

Additional EC Conditions

Mining conditions - Site specific

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, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.
2. The PP shall ensure that the plantation shall be carried out in a phase manner as a part of mine closure activities spelt out in the progressive mine closure plan.
3. The PP shall install the Environmental Management Cell headed by the statutory (I/II Class) Mines Manager of the concerned mine 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.
4. 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.
5. 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.
6. 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.
7. 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. Yearwise expenditure should be reported to the MoEF & CC Ministry and its Integrated Regional Office (IRO) located in Chennai.
8. As accepted by the Project Proponent the CER cost of Rs. 5 Lakhs and the amount shall be spent for the activities as committed towards Government School, Udaiyanatham Village before obtaining CTO from TNPCB.

SEAC standard conditions:

- 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 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
- 3) 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.
- 4) 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 geotagged photographs of the process should be included in the HYCR.
- 5) 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.
- 6) 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.
- 7) 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.
- 8) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination in the DGMS approved OHS Clinics/Hospitals as per the DGMS Circular No. 01 of 2011 before they are engaged in mining activities.
- 9) 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.
- 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 should be adopted by considering the wind direction.
- 11) 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.
- 12) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
- 13) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.
- 14) 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.
- 15) 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.
- 16) 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.
- 17) 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.
- 18) Noise and Vibration Related: (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 19) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
- 20) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 21) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from

DGMS.

22) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.

23) 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.

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 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 thereport 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 granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.

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 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.

31) The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and Tamil Nadu 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.

32) 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.

33) 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.

34) 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.

35) As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEF&CC, the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.

36) 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.

37) As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere to the EMP as committed.

Special mitigation measures for the quarries located within 1 km from the reserve forests, if applicable

1. Since the R.F is located very close to the proposed quarry site, the PP shall develop Green Belt (Thick Tree plantation in two to three rows) along the boundary of the mine lease area before obtaining the CTO from the TNPCB.
2. The proponent shall construct and maintain proper fencing all around the boundary of the proposed working quarry adjacent to the direction of the location of the Reserved Forest before the commencement of the operation and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
3. The PP shall take steps so that the overburden, waste rock, rejects and fines generated during the mining operations shall be stored in separate dumps positioned in opposite direction to the location of the reserved forest.
4. The PP shall ensure that such waste/reject dumps shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment and to prevent causation of floods.
5. The PP shall select the site for dumps on impervious ground to ensure minimum leaching effects due to precipitations.
6. The PP shall take necessary steps that wherever possible, the waste rock, overburden etc. shall be back-filled into the mine excavations with a view to restoring the land to its original use as far as possible.
7. Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the PP shall take adequate steps in discussion with the concerned DFO to suitably terrace the waste dumps ensuring the stability through vegetation to consolidate the green belt development in the areas adjacent to the reserved forest location.
8. The PP shall carry out the scientific investigations in order to keep the ground and noise vibrations caused by blasting operations and movement of HEMM such as Excavators, Trucks within safe limit.
9. The PP shall not perform secondary breakage involving the drilling & blasting in the quarrying operations and it can be replaced with non-conventional methods such as noise controlled rock breakers, usage of non-explosive expansive materials/chemicals, Hydraulic Splitting based on the suitable scientific studies carried out by any reputed scientific and academic institutions.
10. The PP shall take adequate steps to control the air pollution due to fines, dust, smoke or gaseous emissions during the quarrying operations within 'Permissible Limits' specified under the environmental laws.
11. Quarrying and Mining activities shall be restricted in the Eco-sensitive Zone of 60 m from the boundary of the Reserved area and hence the PP shall not even indulge in constructing the haul roads in these areas.
12. No development on existing steep hill slopes or slopes with a high degree of erosion shall be permitted. Hence, the PP shall not carry out the quarrying on steep hill slopes with a gradient 200 or more or areas with a high degree of erosion on forestland.

The PP shall give an affidavit at the time of lease execution that there will be no felling of trees (or) any encroachment will not be made on these Reserved Forest lands and also within the Eco- sensitive Zone of 60 m without the prior permission of the State Government in case of reserve forest land as per the procedures laid down by the State Government.

The PP shall not use plastic carry bags within the quarry area.

The PP shall ensure that all the haul roads within the quarry lease shall be provided with adequate number of road side drains and these drains shall be kept free from blockage for runoff disposals. This run off from the road side drainage shall relate to the natural drainage system in the area.

The PP shall adhere to the provisions of the MoEF had issued Notification No. S.O. 1545 dated 25th June 2009 regulating certain activities in the eco-sensitive zone to conserve and protect the reserved forest area from ecological and environmental point of view.

**BEFORE THE HON'BLE
NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

Appeal No. of 2024 (SZ)

M/s. Stone Trust Enterprises
... Appellant

-Versus-

Ministry of Environment Forest and
Climate Change (MoEF & CC),
& 2 Others

... Respondents

COMPILATION III

**M/s. P. KOKILA
KPRIYANKA
B. GIRIJA
K. MOKSHAVATHY
COUNSEL FOR APPELLANT**

(Mobile No.96001 37731)