



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

To,

The CHIEF OPERATING OFFICER
CHETTINAD CEMENT CORPORATION LIMITED
4th Floor, Rani Seethai Hall Building, 603, Anna Salai, Chennai 603, RANI
SEETHAI HALL BLDNG ,4TH FLOOR FLR, ANNA SALAI -600006

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/38270/2019 dated 06 Jun 2023. The particulars of the environmental
clearance granted to the project are as below.

- | | |
|---|--|
| 1. EC Identification No. | EC23B001TN166539 |
| 2. File No. | 6883 |
| 3. Project Type | New |
| 4. Category | B2 |
| 5. Project/Activity including
Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | CCCPL Pudupalayam Lime Kankar
Quarry Lease (<5 Ha), Ariyalur District |
| 7. Name of Company/Organization | CHETTINAD CEMENT CORPORATION
LIMITED |
| 8. Location of Project | Tamil Nadu |
| 9. TOR Date | 26 Jun 2019 |

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

Date: 15/06/2023

(e-signed)
Thiru. Deepak S. Bilgi
Member Secretary
SEIAA - (Tamil Nadu)

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

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

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY-TAMILNADU

3rd Floor, PanagalMaaligai,
No.1, Jeenis Road, Saidapet,
Chennai - 600 015.
Phone No. 044-24359973
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ENVIRONMENTAL CLEARANCE

Lr. No.SEIAA-TN/F.No.6883/1(a)/EC.No: 5709/2019 dated:21.04.2023

Sir/Madam,

Sub: SEIAA-TN – Proposed Lime Kankar Quarry over an extent of 3.61.0Ha at Survey Nos. 56/1A1, 56/1A3, 56/1B2, 56/1B3, 56/4, 56/5, 57/2B1, 57/2B2, 57/2B3, 57/2B4, 57/2B5, 57/2B6, 57/2B7 and 57/2B8 of Pudupalayam village, Ariyalur Taluk, Ariyalur District, Tamil Nadu – M/s. Chettinad Cement Corporation Private Limited– issue of Environmental Clearance – Regarding.

- Ref:**
1. Online Proposal No. SIA/TN/MIN/38270/2019 dated: 26.06.2019.
 2. Your Application for Environmental Clearance dated: 02.07.2019.
 3. Minutes of the 131st SEAC Meeting held on 18.07.2019.
 4. Minutes of the 136th SEAC Meeting held on 20.09.2019.
 5. Minutes of the 167th SEAC Meeting held on 04.08.2020.
 6. Minutes of the 398th SEIAA Meeting held on 23.09.2020.
 7. Minutes of the 586th SEIAA Meeting held on 25.01.2023&26.01.2023.
 8. Minutes of the 357th SEAC Meeting held on 23.02.2023.
 9. Minutes of the 603rd SEIAA Meeting held on 20.03.2023&21.03.2023.
 10. Proponent's Reply dated on 10.04.2023
 11. Minutes of the 613rd SEIAA Meeting held on 21.04.2023.


MEMBER SECRETARY
SEIAA-TN

Details of Minor Mineral Activity: -

This has reference to your application 3rd 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. The Chettinad Cement Corporation Private Limited
2	Type of quarrying	Lime Kankar
3	S.F No. of the quarry site	56/1A1, 56/1A3, 56/1B2, 56/1B3, 56/4, 56/5, 57/2B1, 57/2B2, 57/2B3, 57/2B4, 57/2B5, 57/2B6, 57/2B7 and 57/2B8.
4	Village in which situated	Pudupalayam Village
5	Taluk in which situated	Ariyalur Taluk
6	District in which situated	Ariyalur District
7	Extent of quarry (in ha.)	3.61.0Ha
8	Latitude & Longitude of all corners of the quarry site	11°05'58.05"N to 11°06'6.12" N 79°05'31.87"E to 79°07'24.09"E
9	Topo Sheet No.	58 M/4
10	Type of mining	Opencast method excavator will be deployed for the formation of benches and loading.
11	Period of current mine plan	5 Years
12	Production (Quantity in Ts)	As per mining plan, the lease period is 5 years. The mining plan is for the period of five years & the production should not exceed of 54998.28 Ts of Lime Kankar
13	Depth of mining	2.4m Below Ground level
14	Depth of water table	21m in summer to 19m in rainy season
15	Man Power requirement	14 Employees
16	Water requirement:	5.0 KLD
	1. Domestic & Flushing	1.0 KLD
	2. Dust suppression	3.0 KLD

	3. Green Belt	4.0 KLD
17	Power requirement	TNEB -
18	Precise area communication approved by the Industries Department with date	Lr.No.9022/MMC.2/2018-1 dated: 12.10.2018 for a period of 5 years
19	Mining Plan approved by the Director of Geology and Mining with date	Lr.No.1508/MM10/2018/LK/Ary dated: 09.01.2019
20	500m cluster letter issued by Assistant Director, Department of Geology & Mining with date	Re.No. 78/G&M/2016, Dated:20.02.2023
21	VAO certificate regarding habitations in 300m radius	Letter dated: Nil
22	Project Cost (excluding EMP)	Rs.40 Lakhs/-
23	EMP cost	Capital cost: Rs.16.57 Lakhs/- Recurring cost: Rs.9.27 Lakhs/- Annum
24	CER Cost	Rs.10,00,000/- as accepted by the PP
25	<u>Validity:</u> This Environmental Clearance is accorded for the quantity of 54998.28 Ts of Lime Kankar up to depth of 2.4m Below Ground Level 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.	

The Proponent has furnished affidavit in stamp paper attested by the Notary stating that I Anandharaja. M S/o Shri Muthiah age 51, General Manager(Geology) of M/s. Chettinad Cement Corporation Private Limited, Rani Seethai Hall Building, 603, Anna Salai, Chennai, Tamil Nadu, Pin code- 600006 Do hereby solemnly declare and sincerely affirm on behalf of the M/s. Chettinad Cement Corporation Private Limited that, we have applied for getting environment clearance to SEIAA, Tamil Nadu for kankar quarry lease over an extent is 3.61 hectares in S.F. No 56/1A1, 56/1A3 located in Pudupalayam Village, Ariyalur Taluk & District, Tamil Nadu State,

I swear to state and confirm that within 10km area of the quarry site, we have applied for environmental clearance, the following is situated.

- No protected areas **under** the wild life (Protection) Act, 1972 (NBWL) is located.
- No Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and control of Pollution) Act 1974. is located.
- No Interstate boundaries and international boundaries within 10km radius from the boundary of the proposed site.

1. We will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities.

CER Activity	Project cost (Rs)	REVISED CER cost (Rs)
Adoption of Government Primary school, Pudupalayam Village <ul style="list-style-type: none"> • Plantation – 50Nos. • Repairing of 3 class room roof top • Assembly stage floor repairing and RCC Green roofing • Library with rack facility 	Rs.40,00,000/-	Rs.10,00,000/-

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

S.No	Name and address of the lessee	S.F.No. Taluk & Village	Extent in Hectare	Lease Period	Status
a. Existing/ Expired Leases Quarries					
1	Chettinad Cement Corporation Private Limited, Rani Seethai Hall Building, No 603, Anna Salai, Chennai -600006	Ariyalur Taluk, Pudupalayam Village	4.32.5 (Lime stone lease)	9.04.2010 to 08.04.2030	The lease lapsed as Mines Not operated for more than 10 years. The Last permit has been issued on 12.09.12 which was Valid upto 11.10.2012. The same has been

					certified by Assistant Director, Geology & Mining, Ariyalur vide Letter No R.C.No 78/G&M/2016 Dt. 20.02.2023..
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As such cluster situation is not applicable Besides, this subject project is Lime Kankar and the existing project is a limestone quarry. It may not be calculated as a cluster as they are not homogeneous minerals.

3. There will not be hindrance or disturbance to the people living no enrooted/ nearby our quarry site while transporting the mineral and due to quarrying activities.
4. There is no approved habitation within 300m radius from the periphery of our quarry.
5. We swear that afforestation will be carried out during the course of quarrying operation and maintained.
6. The required insurance will be taken in the name of the laborers working in our quarry site.
7. The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for Transportation of Rough Stone and topsoil.
8. We will not engage any child labor in our quarry site and I aware that engaging child labor is punishable under the law.
9. All types of safety / protective equipment will be provided to all the laborers working in our quarry.
10. No permanent structures, temple etc., are located within 500m radius from the periphery of our quarry.
11. We will carry out systematic and scientific mining employing qualified staff.
12. We will inform DGMS before commencement of mining activities.
13. We ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of our 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, Ariyalur District in his letter Rc.No.

78/G&M/2016, Dated: 20.02.2023 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:

1. Existing Lease:

S.No	Name of the lessee and address	Taluk & Village	S.F.No	Hect.	Name of the mineral	Lease period
1	Chettinad Cement Corporation Private Limited, Rani Seethai Hall Building, No 603, Anna Salai, Chennai -600006	Ariyalur Taluk, Pudupalayam Village	55/1, 55/2, 56/7 ect.,	4.32.5	Lime stone	09.04.2010 to 08.04.2030
Total				4.32.5		

2. Proposed Mines:

S.No	Name of the lessee and address	Taluk & Village	S.F.No	Hect.	Name of the mineral	Lease period
Nil						

3. Expired and Abandoned Mines:

S.No	Name of the lessee and address	Taluk & Village	S.F.No	Hect.	Name of the mineral	Lease period
Nil						

Appraisal by SEAC: -

Proposed Lime Kankar Quarry over an extent of 3.61.0 at Survey Nos. 56/1A1, 56/1A3, 56/1B2, 56/1B3, 56/4, 56/5, 57/2B1, 57/2B2, 57/2B3, 57/2B4, 57/2B5, 57/2B6, 57/2B7 and 57/2B8 of Pudupalayam village, Ariyalur Taluk, Ariyalur District, Tamil Nadu – M/s. Chettinad Cement Corporation Private Limited– for Environmental Clearance. (SIA/TN/MIN/38270/2019 dated: 26.06.2019).

The proposal was placed in this 357th meeting of SEAC held on 23.02.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
1. Earlier, this proposal was placed for appraisal in the 131st SEAC Meeting held on 18.07.2019. The project proponent gave presentation about the proposal. The SEAC decided to seek following details from the project proponent,
 - Total extent of area comes 7.93.5 Ha accordingly the proposal comes under Terms of Reference. But the proponent has presented the proposal for Environmental Clearance request to clarify.
2. Again, this proposal was placed for appraisal in the 136th SEAC meeting held on 20.09.2019. The SEAC observed the followings,
 - i. The proponent has informed that the mining operation of the Chettinad cements corporation private Ltd. At S.F.No.55/1,55/2,56/7,etc, Pudupalayam Village, Ariyalur Taluk, Ariyalur District over an extent of 4.32.5Ha Lime stone mining has existing mines has stopped on 11.10.2012 (Last permit was issued on 12.09.2012) due to exhaustion of mine able reserves. Further the proponent has informed that the said mine lease got expired on 10.10.2014. But as per the Deputy Director of Geology and Mining, Ariyalur vide Rc.No.78/G&M/2016 dated 27.08.2018 it was informed that the it is existing quarry lease with lease period upto 08.04.2030.
 - ii. The proponent has informed that the final mine closure plan was submitted to Indian Bureau of Mines and obtained the Acknowledgement for the same.
 - iii. The proponent has assured that they will not operate the above said mine and also proponent has submitted the Affidavit for the same.

After the detailed discussion, the SEAC noted that the total extent of area of the cluster comes 7.93.5Ha as per the Deputy Director of Geology and Mining, Ariyalur vide Rc.No.78/G&M/2016 dated 27.08.2018. Hence, SEAC decided that project proponent should apply for the Terms of Reference as per the EIA notification 2006 & subsequent amendment and also as per the Hon'ble NGT, Principal Bench, New Delhi in O.A No.186 of 2016 (M.A.No.350/2016) and O.A. No.200/2016 and O.A.No.580/2016 (M.A.No.1182/2016) and O.A.No.102/2017 and 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) and 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).

3. Again, this proposal was placed for appraisal in the 167thSEAC held on 04.08.2020. After detail deliberation, the SEAC Committee decided that, the necessary clarification is required from SEIAA for the cluster situation of the mines is required since the M/s. Puthupalyam Lime stone mines fall in the existing mines situated in the 500m radius from the proposed mines and cluster area become more than 5ha.

On receipt of the above details, the further course of action may be taken by the SEAC.

4. Subsequently, this proposal was placed for appraisal in the 398thSEIAA held on 23.09.2020. In this connection the following details shall be obtained from AD/DD, Mines of concerned District.

- What was the period of operation and stoppage of the existing mine with copy of last work permit issued by the AD/DD, Mines?
- Quantity of minerals mined out.
- Detail of approved depth of mining.
- Actual depth of the mining achieved earlier.
- Name of the person(s) already mined in that lease area.
- If EC and CTO already obtained, its compliance report from TNPCB.
- Copy of report on closure of mines sent to IBM and status of action taken on the report.

5. Now, the Project Proponent has replied to the queries raised by SEIAA vide his letter dt: 21.12.2020. hence, this proposal was placed for appraisal in the 586thSEIAA held on 25.01.2023& 27.01.2023

Sl. No	Queries raised by SEIAA	Details given by the PP
1.	What was the period of operation and stoppage of the existing mine with copy of last work permit issued by the AD/DD Mines?	Earlier Mines in extent of 4.32.5Ha located in the survey Numbers 55/1, 55/2, 56/7 etc., at Pududpalayam Village, Ariyalur Taluk and District, Mining lease was under operation between 2009-2012. Proceedings obtained from DD Geology & Mining, Ariyalur. Proceeding of yearly Royalty reconciliation work carried out has been obtained from DD Geology & Mining, Ariyalur showing Nil production from 2013-2014 to

		2018-2019. Last permit was obtained on 12.09.2012 for the period upto 11.10.2012. Last permit obtained from DD Geology & Mining, Ariyalur.
2.	Quantity of minerals mined out.	Quantity mined out from ML (4.32.5Ha) located in the survey Numbers 55/1, 55/2, 56/7 etc., at Pudupalayam Village, Ariyalur Taluk and District is shown below 2010-11-60059.56MT. 2011-12-359822.16MT. 2012-13-102912.12MT. Total quantity Mined is-522793.84 MT.
3.	Detail of approved depth of mining.	5 m
4.	Actual depth of the mining achieved earlier.	4.55 m
5.	Name of the person(s) already mined in that lease area.	The Mentioned mines (4.32.5Ha) located in the survey Numbers 55/1, 55/2, 56/7 etc., at Pudupalayam Village is our own mines ie., belongs to Chettinad Cement corporation Private Limited.
6.	If EC and CTO already obtained, its compliance report from TNPCB.	CTO obtained from TNPCB. CTO Compliance report was obtained. As per MMDR Act, 1957 and amended upto 2015, Rule No.4A (4) says that ML will lapse if mining operation discontinued for two years ie., ML got lapsed on 11.10.2014. Hence, not applied for EC.
7.	Copy of report on closure of mines sent to IBM and status of action taken on the report.	Final Mines Closure plan has been submitted at RCOM Office, IBM, and Chennai, copy of Final Mines Closure plan submitted with acknowledgment. IBM advised to submit FMCP with additional details which are under preparation. Same will be submitted at the earliest.

Further, reply received from the Deputy Director, Ariyalur vide Rc.No. 78/G&M/2021 Dated 14.06.2021 reveals the following details:

Sl.No	SEIAA Clarification	Details furnished by AD mines, Ariyalur
1.	What was the period of operation and stoppage of the existing mine with copy of last work permit issued by the AD/DD Mines?	Mining operation- 08.03.2011 to 11.10.2012. Last permit issued vide bulk permit No.862 dated: 12.09.2012.
2.	Quantity of minerals mined out.	522793.84 MT.
3.	Detail of approved depth of mining.	21.5 m as per the approved mining plan.
4.	Actual depth of the mining achieved earlier.	5.0 m
5.	Name of the person(s) already mined in that lease area.	Tvl.Chettinad Cement Corporation Private Limited, has carried out mining operation for limestone over an extent of 4.32.5 hectares of Patta lands in S.F.No.55/1, etc., in Pudupalayam Village, Ariyalur Taluk and District.
7.	Copy of report on closure of mines sent to IBM and status of action taken on the report.	Tvl.Chettinad Cement Corporation Private Ltd has given temporary discontinuance notice to IBM on 15.10.2012.

Now, the proposal was placed in the 357th SEAC meeting held on 23.02.2023. After examining the documents & project proposals furnished by the project proponent and based on the presentations & detailed deliberations, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the total quantity should not exceed 54998.28 Ts of Lime Kankar @ 100% Recovery for a period of 5 years with an annual peak production capacity of not exceeding 44999.59 Ts of Lime Kankar maintaining ultimate depth of mining is 2.40m Below Ground level, subject to the standard conditions stipulated by MOEF & CC, in addition to the following specific conditions:

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.

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2. The proponent shall mandatorily appoint the required number of statutory officials and the competent persons in relevant to the proposed mining activities (or) mining under expansion as per the provisions of Mines Act 1952, Mines Rules 1955 and Metalliferous Mines Regulations, 1961.
3. The proponent shall erect fencing all around the boundary of the mine leasehold area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
4. The PP shall make necessary arrangements for rain water harvesting plan in the proposed quarry site.
5. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of ROM ore, and top soil if any etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Quarry license or any other name.
6. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt of atleast 5m wide along the boundary of the quarrying site and suitable working methodology for the same to be adopted by considering the wind direction.
7. The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the **appendix** in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
8. Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper espacement 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.

9. **Machine-Induced Noise and Vibration:** 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, Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. The Proponent shall also ensure that the level of Noise & Body vibration of all the HEMM deployed in the mine are monitored periodically and the report on such periodic monitoring shall be submitted to the Integrated Regional Office (IRO), MoEF&CC, Chennai / the Regional Office of CPCB, Chennai once in 12 months.
10. The proponent shall undertake the activities of restoration, reclamation and rehabilitation of lands affected by the quarrying operations in a phased manner and shall complete this work before the conclusion of such operations and the relinquishment of the quarrying activities as assured in the Environmental Management Plan & the Mine Closure Plan approved by the Regional Controller of Mines, Indian Bureau of Mines, Chennai.
11. The proponent shall obtain the 'No objection Certificate' from the Regional Director, Central Ground Water Board (CGWB), Chennai when the quarrying operations interfere with the ground water table.
12. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to the Integrated Regional Office (IRO), MoEF& CC, Chennai / Regional office of CPCB, Chennai. The same shall be intimated to the local habitants through village panchayat.
13. 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.
14. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
15. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take 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 ROM ore; and transport of ROM ore will be as per IRC Guidelines with respect to complying with traffic congestion and density. Perennial maintenance of


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haulage road/village / Panchayat Road shall be carried out by the project proponent accordingly.

16. As an experimental exercise, the proponent shall design and install the heavy-duty weather shield cover in the existing haul trucks so as to prevent the spillage of ROM ore being transported and also to provide protection against suspended dust particles while plying in the panchayat haul roads/state highways. A report on the implementation of the above recommendation shall be informed to the SEIAA/SEAC, Tamil Nadu within six months from the date of lease execution.
17. 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.
18. The Occupational health and safety are very closely related to productivity and good employer-employee relationship. The main factors of occupational health in mines are fugitive dust, noise, vibration and ergonomic problem. Safety of employees and maintenance of mining equipment is to be taken care of as per the Metalliferous Mines Regulations, 1961, Mines Rules, 1955 and Circulars of DGMS. To avoid any adverse effects, sufficient measures which include (i) Provision of rest shelters for mine workers with amenities like drinking water, toilets, etc.; (ii) Provision of personnel protection devices for the workers; (iii) Rotation of workers exposed to high noise areas; (iv) First-aid facilities.
19. The Project Proponent shall inform the Director of Mines Safety, Chennai Region, Chennai about the commencement of the mining operations to comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955.
20. The project proponent shall ensure that the provisions of the MMDR Act, 1957, and the MCDR 2017 are complied by carrying out the mining operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
21. The quarrying activity shall be stopped if the entire quantity of ROM ore indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining), District Environmental Engineer (TNPCB), and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.

22. 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.
23. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter as well as in the Precise area communication letter issued by concerned District Collector should be strictly followed.
24. 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.
25. 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.
26. 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 the EMP of as committed.
27. As accepted by the Project Proponent the CER cost is Rs. 10.0 lakhs and the amount shall be spent for the committed activities for Government Middle School, Pudupalayam village before obtaining CTO from TNPCB.

ANNEXURE-I

1. The proponent shall mandatorily appoint the required number of statutory officials and the competent persons in relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961.
2. The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
3. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
4. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste

production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.

5. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
6. The proponent shall ensure that the slope of dumps is suitably vegetated in scientific manner with the native species to maintain the slope stability, prevent erosion and surface run off. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps.
7. Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
8. The Project Proponent shall carry out slope stability study by a reputed academic/research institution such as NIRM, IIT, Anna University for evaluating the safe slope angle if the proposed dump height is more than 30 meters. The slope stability report shall be submitted to concerned Regional office of MoEF&CC, Govt. of India, Chennai as well as SEIAA, Tamilnadu.
9. The Proponent shall ensure that the Noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures undertaken accordingly. The report on the periodic monitoring shall be submitted to TNPCB once in 6 months.
10. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
11. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A

wide range of indigenous plant species should be planted as given in the appendix in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

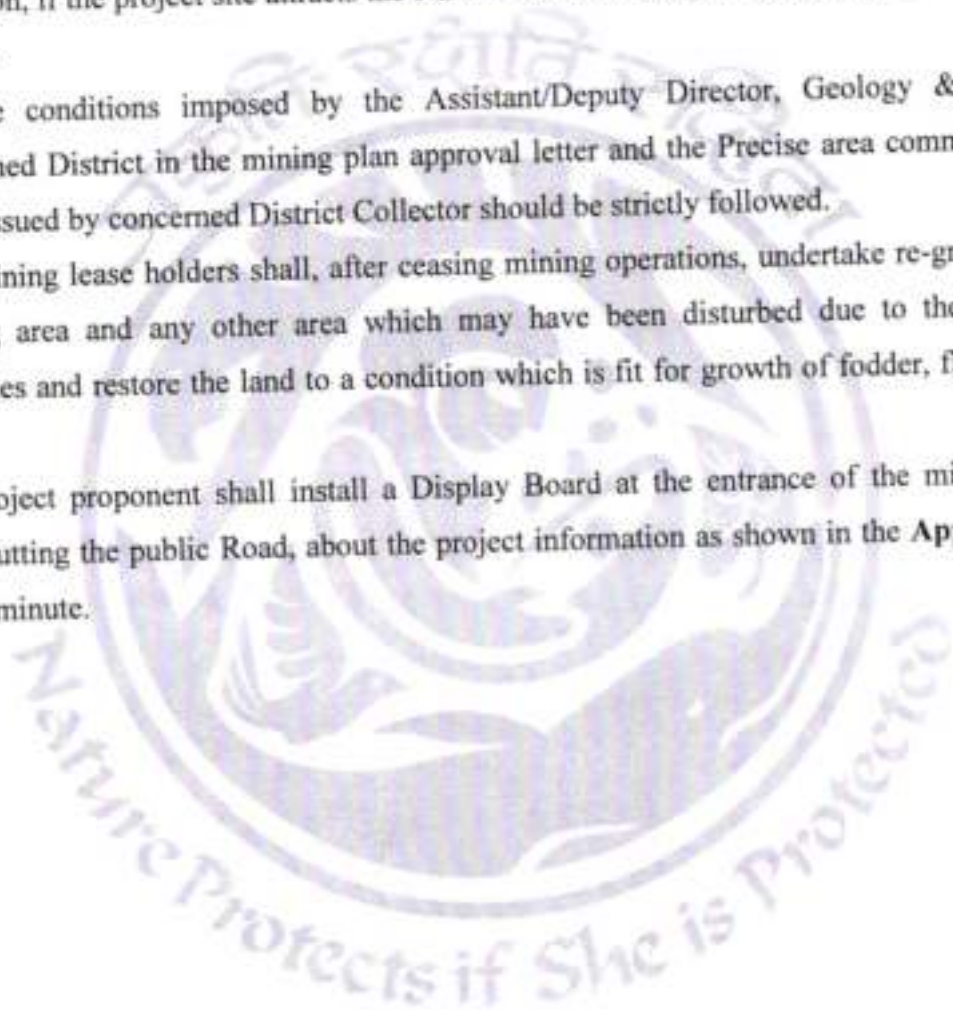
12. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted in proper escapements as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
13. **Noise and Vibration Related:** (i) The Proponent shall carry out only the Controlled Blasting operation using NONEL shock tube initiation system during daytime. Usage of other initiation systems such as detonating cord/fuse, safety fuse, ordinary detonators, cord relays, should be avoided in the blasting operation. The mitigation measures for control of ground vibrations and to arrest fly rocks should be implemented meticulously under the supervision of statutory competent persons possessing the I / II Class Mines Manager / Foreman / Blaster certificate issued by the DGMS under MMR 1961, appointed in the quarry. No secondary blasting of boulders shall be carried out in any occasions and only the Rock Breakers (or) other suitable non-explosive techniques shall be adopted if such secondary breakage is required. The Project Proponent shall provide required number of the security sentries for guarding the danger zone of 500 m radius from the site of blasting to ensure that no human/animal is present within this danger zone and also no person is allowed to enter into (or) stay in the danger zone during the blasting. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
14. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
15. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt


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Management” and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.

16. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
17. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried rough stones; and transport of rough stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
18. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
19. After mining operations are completed, the mine closure activities as indicated in the mine closure plan shall be strictly carried out by the Proponent fulfilling the necessary actions as assured in the Environmental Management Plan.
20. The Project proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition that is fit for the growth of fodder, flora, fauna etc.
21. The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
22. The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
23. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to

- the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
24. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
25. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance, as per the existing law from time to time.
26. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
27. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
28. The Project proponent shall install a Display Board at the entrance of the mining lease area/abutting the public Road, about the project information as shown in the **Appendix -II** of this minute.



Appendix - I
List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Apple marmelos</i>	Vilvam	விவம்
2	<i>Adenanthera pavonina</i>	Manjadi	மஞ்சரி, ஆனந்தமரம்
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Uai	உ.அ.
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தரை
6	<i>Bauhinia racemosa</i>	Aathu	ஆது
7	<i>Bauhinia tomentosa</i>	Iruvathi	இருவதி
8	<i>Euchomaria axillaris</i>	Kattuma	கட.தா
9	<i>Borassia flabellifera</i>	Parai	பரை
10	<i>Eutia monosperma</i>	Murukkamaram	முருகமரம்
11	<i>Bobax coda</i>	Ilava, Sevilava	இலா
12	<i>Calophyllum inophyllum</i>	Pannai	பனை
13	<i>Cassia fistula</i>	Sarakondrai	சரகண்டரை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கண்டரை
15	<i>Chloroxylon swietenia</i>	Purasamaram	பு.அ. மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கொங்கு, மஞ்சள் இலா
17	<i>Cordia dichotoma</i>	Narundi	நாறுதி
18	<i>Croton adansoni</i>	Mavalangum	மாவலங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உ.அ.
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சி.உ.அ.
21	<i>Diospyros ebenum</i>	Karungali	கருங்கலி
22	<i>Diospyros schlegeliana</i>	Vaganai	வாகை
23	<i>Ficus amplissima</i>	Kallichi	கல் இ.அ.
24	<i>Hibiscus tiliaceus</i>	Aatrupoovarasu	ஆத்ரபோவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆ.அ.
26	<i>Holoptelia integrifolia</i>	Aaydi	ஆ.அ. மரம், ஆயி
27	<i>Laurus coromandelica</i>	Othiam	ஒதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Leprosanthus tetraphylla</i>	Nedukottaimaram	நெடுகோட்டைமரம், மரம்
30	<i>Limonia acidissima</i>	Vila maram	விலா மரம்
31	<i>Litsea glutinosa</i>	Pimpattai	பிம்பட்டை, பிம்பட்டைமரம்
32	<i>Madhuca longifolia</i>	Iluppi	இலுப்பை
33	<i>Mankira hexandra</i>	UlabkaiPaalai	உ.அ.கை பாலை
34	<i>Mimusops elengi</i>	Maguthamaram	ம.அ.மரம்
35	<i>Mitrasyna parvifolia</i>	Kadambru	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுனா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுனா
38	<i>Pisonia sylvatica</i>	Eachai	ஏ.அ.மரம்
39	<i>Persea pinnata</i>	Pungam	புங்கம்

40	<i>Premna neriifolia</i>	Munnai	முனை
41	<i>Premna serratifolia</i>	Narumatturai	நா.முனை
42	<i>Premna tomentosa</i>	Malapoovaram	மல.பூவரசு
43	<i>Prosopis cineraria</i>	Vanni maram	வாணி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வெங்கை
45	<i>Pterocarpium canescens</i>	Vennangu, Tada	வெணங்கு, தாடா
46	<i>Pterocarpium xylocarpum</i>	Polaru	புலா
47	<i>Putterlickia roxburghii</i>	Karpala	கர்பலா
48	<i>Salodora persica</i>	Uga Maram	உ.அ. மரம்
49	<i>Sapindus marginatus</i>	Marupingan, Soapukai	மா.அ.பிளா, சோபுகை
50	<i>Soraca asoca</i>	Asoca	அசோகா
51	<i>Streblus asper</i>	Piray maram	பிராய் மரம்
52	<i>Strychnos nuxvomica</i>	Yetti	யெ.அ.
53	<i>Strychnos potatorum</i>	Therthang Kottai	தெ.அ.கோட்டை
54	<i>Syzygium cumini</i>	Narai	நரை
55	<i>Terminalia bellerica</i>	Thandri	தாந்தரி
56	<i>Terminalia arjuna</i>	Ven marudhu	வெ.மருது
57	<i>Terna cilata</i>	Sandhana vembu	சந்தா.வெ.அ.
58	<i>Thespesia populnea</i>	Pervarasu	பு.அ.அ.
59	<i>Widiusadyblata</i>	valvura	வலவூர்
60	<i>Wrightia tinctoria</i>	Veppalai	வெ.அ.அ.
61	<i>Pithecolobium dulce</i>	Kodukkupuli	கொடகுகுபுலி

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தலைவர் அவர்களே, குளரி செயல்படுகிறதான கட்டுத்தலம் அனுபதி சிப்கான், கிருத்தானகளுக்கு உட்கட்டு வாய்க்கட்டி இருந்து வருகிறது. கெதிரி கட்டி கட்டுத்தலம் அனுபதி கெதிரி வர செயல்படுத்தப்படுகிறது.

[illegible]

The proposal was placed in the 613rd Authority meeting held on 21.04.2023. The Authority noted that this proposal was placed for appraisal in this 357th meeting of SEAC held on 23.02.2023 and SEAC has furnished its recommendation to the Authority for granting **Environmental Clearance** to the project subject to the conditions stated therein. Subsequently, this proposal was placed in the 603rd Authority meeting held on 20.03.2023. The authority after detailed discussion decided to call for the following details from the project proponent.

1. The Environmental Status report submitted by the PP states that there is no much vegetation in the lease area. But the kml uploaded by the PP shows that existence of dense flora and fauna.
2. Hence, the flora and fauna to be listed by the PP and furnish the same. The action taken report also needed.
3. The PP shall enumerate No. of trees and shall furnish the protection and conservation plan.
4. The PP shall furnish detailed impact study on soil erosion, agricultural activities, Temperature and drainage pattern.

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Now, the PP had submitted a reply for the details as sought by the Authority vide letter dated: 10.04.2023. Hence, the proposal was placed in this 613rd Authority meeting held on .04.2023.

After detailed discussions, the Authority taking into account the recommendation of SEAC and the safety aspects and to ensure sustainable, scientific and systematic mining, decided to grant Environmental Clearance for the restricted quantity of 54998.28 Ts of Lime Kankar by restricting the depth of mining upto 2.4m Below Ground Level as per the mine plan approved by the Department of Geology & Mining. 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 till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.
3. The project proponent shall furnish a Certified Compliance Report obtained from MoEF&CC while seeking a renewal of the mining plan to cover the project life.
4. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP.
5. As per the OM vide F. No. 1A3-22/1/2022-1A-III [E- 172624] Dated: 14.06.2022, the Project Proponents are directed to submit the six-monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.
6. The amount allocated for EMP should be kept in a separate account and both the capital and recurring expenditures should be done year wise for the works identified, approved and as committed. The work & expenditure made under EMP should be elaborated in the bi-annual compliance report submitted and also should be brought to the notice of concerned authorities during inspections.

Annexure-'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.

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 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

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.

Water Environment – Protection and mitigation measures

9. The proponent shall ensure that the activity does not disturb the water bodies and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area.
10. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighboring open wells and bore wells. The proponent shall ensure that the activities do not in any way affect the water quantity and quality in the open wells and bore wells in the vicinity or impact the water table and levels. The proponent shall ensure that the activities do not disturb the river flow, nor affect the Odai, Water bodies, Dams in the vicinity.
11. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
12. Quality of water discharged from the quarry should be monitored regularly as per the norms of State Pollution Control Board and included in the Compliance Report.
13. Rain Water Harvesting facility should be installed as per the prevailing provisions of TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
14. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA.

15. Regular monitoring of ground water level and water quality shall be carried out around the mine area during mining operation. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
16. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.

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.

Soil Environment – Protection and mitigation measures

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

27. The top soil shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geotextile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.

Noise Environment – Protection and mitigation measures

28. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
29. 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, thePP shall ensure that the biological clock of the villages are not disturbed because of the mining activity.

Biodiversity - Protection and mitigation measures

30. 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.
31. 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.

32. 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.
33. 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.
34. 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.

Climate Change

35. The project activity should not in any way impact the climate and lead to a rise in temperature.
36. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.
37. Intensive mining activity should not add to temperature rise and global warming.
38. Operations should not result in GHG releases and extra power consumption leading to Climate Change.
39. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.
40. Mining Operation should not result in droughts, floods and water stress, and shortages, affecting water security both on site and in the vicinity.
41. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.
42. 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.

Reserve Forests & Protected Areas

43. The activities should provide nature based support and solutions for forest protection and wildlife conservation.
44. The project activities should not result in forest fires, encroachments or create forest fragmentation and disruption of forest corridors.
45. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands.

46. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation.
47. The project activities should not alter the geodiversity and geological heritage of the area.
48. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behaviour of wildlife and flora.
49. The activities should support and recognise the rights and roles of indigenous people and local communities and also support sustainable development.
50. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds.
51. The project activities should not result in changes in forest structure, habitats and genetic diversity within forests.

Green Belt Development

52. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) are planted.
53. The proponent shall ensure the area is restored and rehabilitated with native trees as recommended in SEAC Minutes (in Appendix).

Workers and their protection

54. 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.
55. 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.
56. 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.

Transportation

57. 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.

58. 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.

Storage of wastes

59. The project proponent shall store/dump the granite waste generated within the earmarked area of the project site for mine closure as per the approved mining plan.

CER/EMP

60. The CER Should be fully Implemented and fact reflected in the Half-yearly compliance report.
61. The EMP Shall also be implemented in consultation with local self-government institutions.
62. The follow-up action on the implementation of CER Shall be included in the compliance report.

Directions for Reclamation of mine sites

63. 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.

64. 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.
65. 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.
66. For mining area reclamation plot culture experiments to be done to identify/ determine suitable species for the site.
67. 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.
68. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site.
69. 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.
70. 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.

71. 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.
72. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoils should have necessary physical, chemicals, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broad casted after topsoil and treated overburden are spread.
73. 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.
74. 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.
75. Action taken for restoration of the site should be specifically mentioned in the EC compliances.

Part-A: Conditions to be Complied before/during commencing 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 project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
3. 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.
4. The proponent shall ensure that First Aid Box is available at site.
5. The excavation activity shall not alter the natural drainage pattern of the area.
6. The excavated pit shall be restored by the project proponent for useful purposes.
7. The proponent shall quarry and remove only in the permitted and approved areas.
8. The proponent shall do the quarrying as per the approved mining plan.
9. It shall be ensured that the quarrying operation shall be carried out between 7AM and 5 PM.
10. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
11. The mined out pits should be backfilled wherever warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed. The District administration should ensure the fully implementation of mine closure plan before release of lease deed.
12. No drilling and blasting operation shall be carried out under any circumstances.
13. Free silica test should be conducted and reported.
14. Air Sampling at intersection point should be conducted and reported.
15. Bunds to be provided at the boundary of the project site.
16. Rainwater shall be pumped out via settling tank only

17. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area
18. Earthen bunds and barbed wire fencing around the pits all along the boundary shall be maintained.
19. The CSR funds should be channelized for planting programme, nature conservation support, tribal development and activities that support forest and environment.
20. As per MoEF& CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wildlife angle including clearance from obtaining committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.
21. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. A copy of action plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Chennai.
22. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site.
23. The Assistant/Deputy Director of Geology & Mining shall ensure that the total extent of mining area within 500m radius of this quarry not exceeds 5ha before execution of the quarry lease proceedings. (As per the order of Hon'ble NGT, PB, New Delhi in O.A No.186 of 2016 (M.A.No.350/2016), O.A.No.200/2016, O.A.No.580/2016 (M.A.No.1182/2016), O.A.No.102/2017, O.A.No.404/ 2016 (M.A.No.758/2016, M.A.No.920/2016, M.A.No.1122/2016, M.A.No.12/2017 & M.A.No.843/2017), O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).
24. The Assistant Director of Geology & Mining shall monitor the quantity of minerals excavated and ensure that resources other than the approved minerals shall not be excavated from the approved Mining area. The Department of Geology & Mining is responsible for the enforcement of Tamil Nadu Minor Mineral Concession Rules, 1959 and any violation shall be punished according to the said Act.
25. The Project Proponent shall obtain & furnish the letter /certificate from the Assistant Director of Geology and Mining stating that there is no other Minerals/resources like sand in the quarrying area below the approved depth of Mining before execution of Mining lease.

26. The Proponent shall ensure that the project activity including mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
27. The Project Proponent is also directed to strictly adhere to the Sustainable Sand Mining Management Guidelines, 2016, wherever applicable.
28. Floor of excavated pit should be levelled and sides to be sloped gently in the mine closure phase.
29. All the commitment made by the project proponent in the proposal shall be strictly followed.
30. The mining lease holder shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

Part B: General Conditions:

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.


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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.


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Copy to:

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

4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32.
7. The District Collector, Ariyalur District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. El Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi Spare.
10. File Copy

Signature Not Verified

Digitally signed by Thiru. Deepak S. Bilgi

Member Secretary

Date: 6/15/2023 7:51:27 PM

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