

# THIRU. A.R. RAHUL NADH, I.A.S. MEMBER SECRETARY

# STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY-TAMILNADU

3<sup>rd</sup> Floor, Panagal Maaligai, No.1, Jeenis Road, Saidapet, Chennai - 600 015. Phone No. 044-24359973 Fax No. 044-24359975

### AMENDMENT ENVIRONMENTAL CLEARANCE

### Lr. No.SEIAA-TN/F.No.4049/EC.No:3886/Amendment/2024 dated:07.10.2024

To

M/s. Tamil Nadu Minerals Limited, 31, Kamarajar Salai, TWAD House, Chepauk, P.B. No. 2961, Chennai - 600 005

Sir,

Sub: SEIAA-TN – Amendment to Environmental Clearance for the Existing Colour Granite quarry lease over an extent of 10.12.0 Ha S.F.Nos.120(P) Naganur Village, Kulithalai Taluk, Karur District, Tamil Nadu by M/s Tamil Nadu Minerals Ltd – under Category "B" and Schedule Sl. No. 1(a) "Mining of Minerals Projects" under the EIA Notification, 2006 as amended – Amendment to Environmental Clearance – Issued – Regarding.

- **Ref**: 1. Earlier EC issued by Lr.No.SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016.
  - 2. Online proposal No. SIA/TN/MIN/ 276355/2022 Dt:03.06.2022.
  - 3. Proponent application for EC Amendment dated: 13.06.2022.
  - 4. Minutes of the 291st meeting of SEAC held on 02.07.2022.
  - 5. Minutes of the 536th meeting of SEIAA held on 26.07.2022.
  - 6. Minutes of the 604th meeting of SEAC held on 20.08.2022.
  - 7. Minutes of the 549th meeting of SEIAA held on 05.09.2023.
  - 8. Minutes of the 367th meeting of SEAC held on 31.03.2023.

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- 9. Minutes of the 395th meeting of SEAC held on 27.07.2023.
- 10. Minutes of the 646th meeting of SEIAA held on 09.08.2023.
- 11. Proponent Reply Dated: 20.09.2024.
- 12. Minutes of the 761st meeting of SEIAA held on 07.10.2024.

Environmental Clearance was accorded vide EC. Lr.No.SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016 to **M/s Tamil Nadu Minerals Lid** for the Existing Colour Granite quarry lease over an extent of 10.12.0 Ha S.F.Nos.120(P) Naganur Village, Kulithalai Taluk, Karur District, Tamil Nadu.

Now, the Proponent has applied Amendment to Environmental Clearance vide Online proposal No. SIA/TN/MIN/ 276355/2022 Dt:03.06.2022.

#### Remarks of SEAC:

Existing Colour Granite quarry lease over an extent of 10.12.0 Ha S.F.Nos.120(P) Naganur Village, Kulithalai Taluk, Karur District, Tamil Nadu by M/s Tamil Nadu Minerals Ltd., - For amendment to Environmental Clearance.

### (SIA/TN/MIN/ 276355/2022 Dt: 3.6.2022)

The proposal was earlier placed in the 291<sup>st</sup> meeting of SEAC held on 02.07.2022. The project proponent gave a detailed presentation. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

#### The SEAC noted the following:

- In the Mineral Concession Rules, 1960, (hereinafter referred to as the principal rules), in rule 2, in sub rule (1), after clause (vii), the following clause is inserted, namely:
  (vii a) "run-of-mine" means the raw, unprocessed or uncrushed material in its natural state obtained after blasting, digging, cutting or scraping from the mineralized zone of a lease area;
- The project proponent has issued with Environmental Clearance vide Lr.No.SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016 for the production of 1211 m³/annum of Multi Coloured Granite & 10901 m³/annum of Granite rejects for the period of 20 Years from the date of Execution of mining lease.
- Now, the project proponent has applied for amendment in the existing EC issued for the following.

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Production quantity as per EC	Amendment Sought
1211 m³/annum of Multi Coloured Granite &	12113m <sup>3</sup> of RoM per Annum
10901 m³/annum of Granite rejects for the period	
of 20 Years from the date of Execution of mining	
lease.	

### The PP also furnished the following

- The TAMIN production targets are conservative and follow the government mining rules and regulations to quarry the Black granite, Dolerite at this location and sold to international and domestic markets.
- The PP is also demarcated a dedicated area within the leasehold area for dumping of the non-saleable granite waste.
- The waste rock (or) overburden rock (or) other rejects excavated in the quarry is also dumped within the leasehold area and it will be backfilled into the worked out granite quarry faces during the final closure plan, with a view to restore the land to its original use (or) desired alternate use.
- In case of non-feasibility of backfilling, the waste dumps will suitably terraced and stabilised by planting adequate vegetation as indicated by the SEAC, as a part of progressive mine closure plan.
- Long term & shorter ecological and environmental impacts such as air pollution due to
  dust, exhaust emissions or fumes, the discharge of toxic and objectionable effluents,
  noise arising out during the mining operations of granite and related activities are
  adequately mitigated in the EMP.
- It is submitted that the environmental impact is directly linked to ROM being mined out from the mineralised zone of quarry and not restricted to saleable production quantity (recovery alone).
- Since the EC limits saleable production quantity (recovery only), it is observed that our quarry managers tend to extricate a very miniscule quantity of absolutely defect free material.
- In many quarries the recovery falls down to very low value as 2% of RoM. This is
  neither in the interest of revenue generation for TAMIN (or)the State Government and
  also it is also not helping to protect the environment.

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- Mining recoverable reserves may vary subject to the quality of Granite mining method and Geological features such as structural, textural formations and the market demand for the Granite being mined.
- It is well known that without extracting the Run of Mine (ROM) the recoverable production (recovery) is not possible.

SEAC carefully considered the request of the PP based on the presentation made and the details furnished by the project proponent. SEAC noted the following.

1. Project proponent has requested the following amendment.

Production qty as per EC	Amendment Sought
1211 m³/annum of Multi Coloured Granite &	12113m³ of RoM per Annum
10901 m <sup>3</sup> /annum of Granite rejects for the	
period of 20 Years from the date of Execution	
of mining lease.	

- The term RoM includes raw, unprocessed or uncrushed material in its natural state obtained after blasting, digging, cutting or scraping from the mineralized zone of a lease area.
- 3. The quantity of 'saleable mineral' depends on many factors such as the geology of the site, technology, workmanship, etc, and, therefore, is difficult to estimate accurately, while RoM can easily be estimated at the time of preparation of mining plan.
- SEAC recommended EC for the project based on the EIA/PFR/EMP report and approved mining plan wherein the details of production of RoM, mineral and mineral waste were mentioned.
- 5. EMP for the project has been finalised based on total RoM & peak annual RoM and not based on 'saleable mineral.'
- SEAC noted that the project proponent has not asked for any change in the area, or in RoM, or in the peak annual RoM.

Considering all the above, the SEAC recommends the following amendment to the EC subject to the certain conditions.

Production qty as per EC	Amendment Recommended
1211 m <sup>3</sup> /annum of Multi Coloured Granite & 10901	12113m <sup>3</sup> of peak RoM per

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m <sup>3</sup> /annum of Granite rejects for the period of 20 Years	Annum.
from the date of Execution of mining lease.	

Subsequently the subject was placed before SEIAA in its 536<sup>th</sup> meeting held on 26.07.2022. The Authority noted that as per the approved mining plan/progressive closure plan submitted & as per the Point no. 31 (Storage of overburden, waste rock etc) of Chapter-VI of Granite Conservation & Development Rules, 1999,

- The overburden, waste rock and non-saleable granite generated during prospecting or mining operations for granite shall be stored separately in properly formed dumps on grounds earmarked.
- II. Such dumps shall be properly secured to prevent the escape of material in harmful quantities which may cause degradation of the surrounding land or silting of water courses.
- III. Wherever possible, such waste rock or overburden or other rejects, shall be backfilled into the worked-out granite quarry, where granite has been recovered upto the optimum depth, with a view to restore the land to its original use or desired alternate use, as far as possible and where the backfilling is not feasible, the waste dumps shall be suitable terraced and stabilised by planting vegetation or otherwise.

As per the Point no. 32 (Reclamation and Rehabilitation of lands) of Chapter-VI of Granite Conservation & Development Rules, 1999,

"Every lease holder shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by prospecting or mining operations and shall complete this work before the conclusion of such operations and the abandonment of the granite quarry".

The Authority after detailed discussions, decided to refer back the proposal to SEAC for specific recommendation with justification for grant of Environmental clearance on the quantity of mineable mineral in terms of ROM quantity instead of Production quantity after the receipt of following details from the project proponent.

- I. The proponent shall submit the details of utilization of total quantity of granite Waste till the life of the quarry period for beneficial purpose.
- II. The proponent shall submit revised progressive mine closure & rehabilitation plan.

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- III. To furnish approval obtained from the competent authority details of utilization of quantity of granite Waste for beneficial purpose as per market trend and revised progressive mine closure & rehabilitation plan proposed quarry pits till the life of the quarry period.
- IV. Long term and short term ecological and environmental impacts due to storage, handling, and transportation of granite waste for beneficial purpose (or) otherwise.
- V. AD/Competent authority of Geology & Mining Dept. justification for according permission in terms of ROM quantity instead of production quantity.
- VI. Can waste and such tailings be used for land back fills?
- VII. Mine closure plans and EMP in detail. How can the granite mine site be reclaimed to near natural and pre-mining condition?
- VIII. Action plan for protection of open and abandoned open spots as they are Hotspot for toxic water accumulation, contamination and accidents.
- IX. On impact due to transportation of the granite waste on the access road and the equipment, and social impacts.

Further the Proponent shall furnish the following additional particulars:

- 1. Certified compliance report for the existing quarry.
- 2. Valid scheme of mining stating the required product.

Hence the proposal was placed for reappraisal in this 304<sup>th</sup> meeting of SEAC held on 21.08.2022. The Project proponent furnished the clarifications for the points raised by SEIAA as given below:

- 1. As per the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016, the term 'run-of-mine' (RoM) is defined as "the raw, unprocessed or uncrushed material in its natural state obtained after blasting, digging, cutting or scraping from the mineralized zone of a lease area", this includes the saleable ore mined after the processing, intercalated waste and mineral rejects/subgrade mineral.
- 2. The quantity of 'recovered saleable ore' depends on many factors such as the geology of the site, physical & geomechanical properties of the rock, quarrying technology, market demand etc. Further, the 'Recovery' is difficult to be estimated always precisely due to poor density & thickness of the granite, poor porosity, Visual appearance where it is being observed with dings, dents,

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- scratches or uneven surfaces and however the RoM can easily be quantified at the time of preparation of mining plan.
- 3. The PP have informed that the 'Total Excavation' including ROM ore from which saleable fraction is produced are taken into consideration from the view point of economic viability of project during the approval of Mining Plan.
- 4. SEAC recommended EC for the project based on the EIA/PFR/EMP report and approved mining plan wherein the details of production of RoM which includes the Recovery (Ore), and mineral waste, and the overburden/side burden waste were mentioned.
- 5. The EMP for the project has been finalised based on total RoM & peak annual RoM and not based on 'meagre quantity of saleable ore'.
- 6. Further it is pragmatic to consider total rock excavation from the point of view of Environmental Clearance, rather than production of saleable fraction of ore (or) the RoM (the extracted material from ore zone inclusive of mineral reject, intercalated waste or gangue minerals, if any).
- 7. During the approval of Mining Plan, the total excavation including RoM ore from which saleable fraction is produced are taken into consideration.
- 8. It is also clarified that total rock excavation may differ to generate same amount of RoM on year-to-year basis.
- 9. SEAC noted that the PP has not asked for any change in the area, or in RoM, or in the peak annual RoM.
- 10. By allowing the mineral rejects to be moved out from the leasehold area, the pollution caused due to excessive storage of mineral rejects (Granite rejects obtained from ROM) is reduced considerably. Besides, as per Rule 64B (2), if the Run-of-Mine is removed from the leased area, then royalty shall be payable on the unprocessed Run-of-Mine (ROM) mineral depending on its grade.
- 11. The PP has informed the entire quarrying operation will be carried out in accordance with the provisions of the Granite Conservation & Development Rules, 1999,

However, based on the additional particulars furnished by the Project proponent, SEAC have noted that the PP has not furnished certified compliance report issued by MoEF&CC (or) TNPCB for its existing EC issued. Hence it is decided to call for the following details from

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the PP.

The PP shall furnish the certified compliance report issued by MoEF&CC (or) TNPCB for its existing EC issued.

Simultaneously, the subject was placed in the 536<sup>th</sup> meeting of Authority held on 26.07.2022. The Authority noted that as per the approved mining plan/progressive closure plan submitted & as per the Point no. 31 (Storage of overburden, waste rock etc) of Chapter-VI of Granite Conservation & Development Rules, 1999.

- i) The overburden, waste rock and non-saleable granite generated during prospecting or mining operations for granite shall be stored separately in properly formed dumps on grounds earmarked.
- ii) Such dumps shall be properly secured to prevent the escape of material in harmful quantities which may cause degradation of the surrounding land or silting of water courses.
- iii) Wherever possible, such waste rock or overburden or other rejects, shall be backfilled into the worked out granite quarry, where granite has been recovered upto the optimum depth, with a view to restore the land to its original use or desired alternate use, as far as possible and where the backfilling is not feasible, the waste dumps shall be suitable terraced and stabilised by planting vegetation or otherwise.

As per the Point no. 32 (Reclamation and Rehabilitation of lands) of Chapter-VI of Granite Conservation & Development Rules, 1999,

"Every lease holder shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by prospecting or mining operations and shall complete this work before the conclusion of such operations and the abandonment of the granite quarry".

The Authority after detailed discussions, decided to refer back the proposal to SEAC for specific recommendation with justification for grant of Environmental clearance on the quantity of mineable mineral in terms of ROM quantity instead of Production quantity after the receipt of following details from the project proponent.

i) The proponent shall submit the details of utilization of total quantity of granite Waste till the life of the quarry period for beneficial purpose.

ii) The proponent shall submit revised progressive mine closure & rehabilitation plan.

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- iii) To furnish approval obtained from the competent authority details of utilization of quantity of granite Waste for beneficial purpose as per market trend and revised progressive mine closure & rehabilitation plan proposed quarry pits till the life of the quarry period.
- iv) Long term and short term ecological and environmental impacts due to storage, handling, and transportation of granite waste for beneficial purpose (or) otherwise.
- v) AD/Competent authority of Geology & Mining Dept. justification for according permission interms of ROM quantity instead of production quantity.
- vi) Can waste and such tailings be used for land back fills?
- vii) Mine closure plans and EMP in detail. How can the granite mine site be reclaimed to near natural and pre-mining condition?
- viii) Action plan for protection of open and abandoned open spots as they are Hotspot for toxic water accumulation, contamination and accidents.
- ix) On impact due to transportation of the granite waste on the access road and the equipment, and social impacts.

Further the Proponent shall furnish the following additional particulars:

- 1. Certified compliance report for the existing quarry.
- 2. Valid scheme of mining stating the required product.

Subsequently the proposal was placed in this 367<sup>th</sup> meeting of SEAC held on 31.03.2023. The proponent requested the Committee to grant additional time to submit the certified compliance report. The SEAC accepted the request and decided to defer the subject to a later date.

The PP submitted the details sought vide letter dated 22.05.2023 and hence the subject was taken up for discussion in this 395<sup>th</sup> meeting of SEAC held on 27.07.2023.

The PP made a detailed presentation of the amendment sought. The SEAC noted that, Details of approved Mining plan:

SI No	Year	Proposed P to 26.01.202	roduction quantity in m <sup>3</sup> as p	oer EC [EC valid up
		RoM	Production [10%]	Granite rejects

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## Lr. No.SEIAA-TN/F.No.4049/EC.No:3886/Amendment/2024 dated:07.10.2024.

Total	1	58,544	5854	52,690
5.	2019-2020	12,113	1211	10,902
4.	2018-2019	10,106	1011	9,095
3.	2017-2018	12,100	1210	10,890
2.	2016-2017	12,034	1203	10,831
1.	2015-2016	12,191	1219	10,972

## Scheme of Mining -II

Deemed approval.

### EC Amendment sought in EC:

Proposed Production quantity in m <sup>3</sup> Amendment sought in EC						
SI. No	Year	RoM	Production [25%]	Granite rejects		
1.	2020-2021	Nil	Nil	Nil		
2.	2021-2022	500.340 (Actual)	125.085	375.255 (Actual)		
3.	2022-2023	12,100	3,025	9,075		
4.	2023-2024	10,106	2,527	7,579		

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Total		34,818.340	8705.085	26113.255
	(Up to Lease period)			
5.	2024 -2025 26.01.2025	12,112	3,028	9,084

Approved Modified Scheme of Mining –III Rc.No.4326/MM2/2023, dt.10.07.2023.

Based on the presentation & documents furnished by the PP, SEAC decided to recommend for the grant of aforesaid amendment to the Environmental Clearance. All the other conditions stipulated in the EC Lr. No. SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016 remain unaltered.

### **Discussion of SEIAA:**

Existing Colour Granite quarry lease over an extent of 10.12.0 Ha S.F.Nos.120(P) Naganur Village, Kulithalai Taluk, Karur District, Tamil Nadu by M/s Tamil Nadu Minerals Limited - For amendment to Environmental Clearance.

(SIA/TN/MIN/ 276355/2022 Dt: 3.6.2022)

The subject was earlier placed in the 646<sup>th</sup> meeting of SEIAA held on 09.08.2023. The SEIAA noted that the subject was placed in the 395<sup>th</sup> meeting of SEAC held on 27.07.2023 an has furnished its recommendations for the following amendment to EC issued vide. T.O. Lr. No. SEIAA-TN/F.No.4049/1(a)/EC.No.3886/2016 Dt. 14.11.2016.

SI No	Year	Proposed Production quantity in m <sup>3</sup> as per EC [EC valid up to 26.01.2025]		
		RoM	Production [10%]	Granite rejects
1.	2015-2016	12,191	1219	10,972
2.	2016-2017	12,034	1203	10,831

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Scheme of Mining –II  Deemed approval.					
	Total	58,544	5854	52,690	
5.	2019-2020	12,113	1211	10,902	
4.	2018-2019	10,106	1011	9,095	
3.	2017-2018	12,100	1210	10,890	

### Amendment sought in EC:

Proposed Production quantity in m <sup>3</sup> Amendment sought in EC					
SI. No	Year	RoM	Production [ 25%]	Granite rejects	
1.	2020-2021	Nil	Nil	Nil	
2.	2021-2022	500.340 (Actual)	125.085	375.255 (Actual)	
3.	2022-2023	12,100	3,025	9,075	
4.	2023-2024	10,106	2,527	7,579	
5.	2024 -2025 26.01.2025 (Up to Lease period)	12,112	3,028	9,084	
	Total	34,818.340	8705.085	26113.255	

Approved Modified Scheme of Mining –III Rc.No.4326/MM2/2023, dt.10.07.2023.

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Based on the presentation & documents furnished by the PP, SEAC decided to recommend for the grant of aforesaid amendment to the Environmental Clearance. All the other conditions stipulated in the EC Lr.No.SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016 remain unaltered.

The SEIAA held detailed discussions and decided to call for the following details/documents from the Project Proponent:

- 1. Certified compliance report from the competent authority for the existing quarry.
- 2. Valid scheme of mining for the proposed quarrying activity shall be submitted.
- 3. Details/documents sought by the Authority in its 536th meeting held on 26.07.2022

The PP furnished the details sought and hence the subject was placed in this placed in this 761<sup>st</sup> meeting of SEIAA held on 07.10.2024. The SEIAA taking into account the recommendations of SEAC and also the safety aspects and to ensure sustainable, scientific and systematic mining, decided to grant amendment to Environmental Clearance for the production quantity of 12112 m³ of RoM, 3028 m³ of Colour Granite @ 25% recovery for the period 2024-2025 as per the approved modified mining plan. The Granite rejects shall only be used for refilling the mining pit, post-mining operations. All the other conditions stipulated in the EC Lr.No.SEIAA-TN/F.No. 4049/1(a)/EC. No.3886/2016 Dt. 14.11.2016 remain unaltered.

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#### Copy to:

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

## Lr. No.SEIAA-TN/F.No.4049/EC.No:3886/Amendment/2024 dated:07.10.2024.

- 3. The Additional Chief Secretary to Government, Industries, Investment Promotion & Commerce Department, Tamil Nadu.
- The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
- The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 932.
- 6. The Chair Person, TNPC Board, 76, Mount Salai, Guindy, Chennai-32.
- 7. The District Collector, Karur District.
- 8. The Commissioner of Geology and Mines, Guindy, Chennai-32.
- 9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
- 10. File Copy.