

State Expert Appraisal Committee (SEAC)

Minutes of 382<sup>nd</sup> meeting of the State Expert Appraisal Committee (SEAC) held on 09.06.2023 (Friday) at SEIAA Conference Hall, 2<sup>nd</sup> Floor, Panagal Maligai, Saidapet, Chennai 600 015 for consideration of Building Construction Projects, Industry Projects & Mining Projects

Agenda No: 382-01

(File No: 6260/2018)

Proposed Garnet sand Quarry lease over an extent of 3.07.0Ha at S.F.Nos. 137/7, 348/1A, 1B, 1C1, 1C2, 1C3, 2B1, 3A, 4, 5, 6B, 7A, 8, 9, 11, 12 & 13 of Naduvalur Village, Thuraiyur Taluk, Tiruchirappalli District, Tamil Nadu by Tvl. Riverways Mines and Minerals Ltd -for Terms of Reference. (SIA/TN/MIN/24153/2018 Dated: 11.04.2018).

The proposal was earlier placed in 341<sup>st</sup> Meeting of SEAC held on 29.12.2022.

The details of the project furnished by the proponent are available in the website ([www.parbvesh.nic.in](http://www.parbvesh.nic.in)).

The SEAC noted the following:

1. The Project Proponent, Tvl. Riverways Mines and Minerals Ltd has applied for Terms of Reference for the Proposed Garnet sand Quarry lease over an extent of 3.07.0Ha in S.F.Nos. 137/7, 348/1A, 1B, 1C1, 1C2, 1C3, 2B1, 3A, 4, 5, 6B, 7A, 8, 9, 11, 12 & 13 of Naduvalur Village, Thuraiyur Taluk, Tiruchirappalli District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. The quarry lease was granted vide proceedings letter RC.No.1453/MM7/2008 dated: 16.11.2009 for the period of twenty years. The lease deed was executed on 29.03.2010 and the lease period is valid up to 28.03.2030.
4. The mining plan (2010-11 to 2014-15) was prepared and approved by the Indian Bureau of mines, Chennai got expired on 28.03.2015.
5. The first Scheme of mining for the period (2015-16 to 2019-20) was approved by the Indian Bureau of Mines, Chennai vide letter no.TN/TCR/GNT/MS-1240-MDS, dated: 12.05.2015.
6. The Second scheme of mining is prepared under processing seeking for approval.
7. Meanwhile, the PP had submitted a letter dated 11.04.2018 stating the following.

  
MEMBER SECRETARY  
SEAC - TN

1

  
CHAIRMAN  
SEAC - TN

"...In this connection, we would like to inform you that we have not carried out any mining activity in this lease after the GO referred (3) above as directed by Government. Infact, the last transport permit for this lease was obtained from AD-Mines on 25.07.2013 only. A letter in this regard is obtained from Assistant Director, Department of Geology & Mining Trichirappalli confirming no transport permit was issued to us from 25.07.2013 (Enclosure Under the above circumstances, since ours is less than 5 Ha category mine and we have not carried out mining activity after July 2013, we request you not to consider our proposal under violation case projects and process our carrier application at the earliest under normal category..."

8. The Lessee has not carried out any production activity as the quarrying operation was suspended and hence this proposal is not falling in violation category as per the Notification 804(E), dated 14.03.2017 issued by Ministry of Environment, Forest and Climate Change.
9. In this connection, the PP had submitted a letter obtained from the Assistant Director, Dept. of Geology and Mining, Tiruchirappalli vide letter No. 220/2002/mines dated: 06.04.2018 and stating the following,

"...In this connection it is informed that as per available records of this office, it is found that the last transport permit had been issued to the lessee on 25.07.2013 vide bulk permit No.1864 on payment of royalty of Rs.22,500/- (Rupees twenty-two thousand and five hundred only) to transport 500 mts. of garnet sand from the above said garnet sand mines. Further, no transport permit was issued to the lessee from 25.07.2013..."

10. Here, the SEAC noted that as per G.O.No.173 Dated 17.09.2013 para 3 (iii) states that,

"...The District Collectors of Tirunelveli, Tiruchirappalli, Kanniyakumari and Madurai will issue proceedings directing all private lessees of major minerals like Garnet, Ilmenite and Rutlie etc., in Tirunelveli, Tiruchirappalli, Kanniyakumari and Madurai Districts to immediately stop the mining operations pending completion of the inspections by the Special Team..."

Based on the presentation made by the proponent, the SEAC decided to defer the proposal. On the receipt of G.O copy to permit the grant of garnet sand quarry and

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

the Cluster letter from the concerned AD (Geology & Mines), the SEAC will consider this proposal for further course of action. Further the PP shall withdraw the duplicate files with online number 24153 (ToR application) dated 11.04.2018.

In this connection, The PP had submitted a reply vide letter dated 31.03.2023 and G.O.(3D) No.04, Industries, Investment Promotion and Commerce (MMD.1) Department, dated:28.02.2023 stating the following.

*"...In G.O.(3D) No.04 Industries, Investment Promotion and Commerce (MMD.1) Department dated 28.02.2023 - Mining lease Granted to Tvt. Riverways Mines and Minerals limited- - Show cause Notice issued for Premature Termination of existing Mining lease under section 4A(1) & 4A(3) of the Mines and Minerals (Development and Regulation) Act, 1957 - Clarification on the applicability of the Atomic Minerals Concession Rules, 2016 (AMCR 2016) and Government of India, Ministry order dated 01.03.2019 obtained-withdrawal of show cause Notice, as stated, AMCR, 2016 and Government of India, Ministry of Mines Order dated 01.03.2019 are not applicable to the 11 Mining leases granted for mining Garnet in Tiruchirappalli District the question of premature termination of the mining lease granted in the proceeding does not arise. The Government therefore, have decided to withdraw the show cause notice issued in the letter and orders accordingly..."*

Based on the proponent's reply vide letter dated: 31.03.2023, the proposal was now placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Whereas the PP informed the committee that the Project site is a cluster as per the 500m radius cluster letter obtained from the AD mines, Tiruchirappalli. Hence, the project activity falls under B1 category. Therefore, the PP informed the Committee that they would like to retain ToR application vide application No. SIA/TN/MIN/24153/2018 Dated: 11.04.2018 and withdraw the application filed for EC vide application No. SIA/TN/MIN/62112/2018 Dated: 28.01.2017. The Committee decided to admit this application seeking ToR as the project activity falls under B1 category and allowed the PP to withdraw the other application filed seeking EC for the same project.

  
MEMBER SECRETARY  
SEAC -TN


  
CHAIRMAN  
SEAC- TN

Based on the presentation made by the proponent, SEAC recommended to grant of **Terms of Reference (TOR) with Public Hearing** subject to the following TORs in addition to the standard Terms of Reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
2. The PP shall furnish a copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
3. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DCM) are the same.
4. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.
5. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
6. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.
7. The PP shall provide all documents including approved mine plan/ approved scheme of mining, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.

8. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
9. The PP shall indicate the level of Impact on local transport Infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
10. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
11. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
12. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
13. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc, within 1 km radius around the proposed mining area from the Govt records.
14. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the proposed mining activity.
15. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kottam, Kerala.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

16. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
17. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
18. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
19. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
20. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
21. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
22. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
23. The PP shall disclose the details of litigation / violation case pending against the project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.
24. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve

etc., up to a radius of 25 km from the proposed site.

25. Detailed study report on flora and fauna in and nearby the quarry site.
26. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
27. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
28. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
29. The PP shall furnish the water requirement for the project, its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
30. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
31. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
32. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.
  - iii. Highest production achieved in any one year
  - iv. Detail of approved depth of mining.

  
MEMBER SECRETARY  
SEAC -TN

7

  
CHAIRMAN  
SEAC - TN

- v. Actual depth of the mining achieved earlier.
  - vi. Name of the person already mined in that leases area.
  - vii. If EC and CTO already obtained, the copy of the same shall be submitted.
  - viii. Whether the mining was carried out as per the approved mine plan (or EC if issued).
33. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
34. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
35. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
36. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
37. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
38. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may



clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

39. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
40. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
41. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
42. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
43. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
44. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
45. Impact on local transport infrastructure due to the Project should be indicated.
46. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.

  
MEMBER SECRETARY  
SEAC - TN

9


  
CHAIRMAN  
SEAC - TN

47. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
48. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
49. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
50. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
51. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
52. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of Indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
53. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
54. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.

55. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
56. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
57. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
58. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
59. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
60. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
61. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
62. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
63. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

  
MEMBER SECRETARY  
SEAC - TN

11

  
CHAIRMAN  
SEAC - TN

Agenda No: 382-02

(File No. 6387/2017)

Proposed Existing Limestone Mine lease area over an extent of 4.95.0Ha at S.F.Nos.394, 396, 416 & 417 Pudupalayam & Edayathankudi Village, Ariyalur Taluk, Ariyalur District Tamil Nadu by M/s. Chettinad Cement Corporation Limited -For Terms of Reference under violation category. (SIA/TN/MIN/25079/2018 dated: 3.04.2018)

The proposal was earlier placed in the 341<sup>st</sup> meeting of SEAC held on 29.12.2022. The details of the project furnished by the proponent are given in the website (parivesh.nic.in). The SEAC noted the following:

1. The project proponent, M/S. Chettinad Cement Corporation Limited, has applied for Terms of Reference under violation category for the Existing Limestone Mine lease area over an extent of 4.95.0Ha at S.F.Nos.394, 396, 416&417 Pudupalayam & Edayathankudi Village, Ariyalur Taluk, Ariyalur District Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B" – "Under Violation" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended

The SEAC noted that the project proponent is absent during the meeting. Hence the subject was not taken up for discussion. Further, the Project Proponent vide Lr. CCCPL /PPM-EDK/EC-02 Dt:28.12.2022 has informed that they have decided not to pursue further the process of obtaining EC since they have decided to surrender the mining lease to IBM and has submitted Final Mine Closure Plan in order to close the mine properly. The last permit was issued on 22.12.2016. In view of these, the proponent has requested SEIAA to dispose of their application seeking EC.

In view of the above, SEAC decided that the PP shall furnish documentary evidence in the forthcoming meeting of SEAC so as to consider their request for withdrawal of said proposal seeking EC under 'Non-violation' category.

The proposal was taken up for discussion in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to grant of Terms of Reference (TOR) without Public Hearing under Violation category, subject to the following TORs, in addition to the standard

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

terms of reference for EIA study for non-coal mining projects and the EIA/EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants which should be submitted within **one year** from the date of issue of ToR.

1. The PP shall furnish an affidavit stating that the intended application seeking ToR is only as part of statutory obligation to enable mine closure and that no mining activity will be carried out by the PP.
2. The SEIAA-TN shall request to initiate the action U/s 19 of E(P) Act 1986 for their violation.
3. The PP shall enumerate the structures located in 100m, 200m & 300m from the project site and the same shall be included in the EIA report.
4. The project proponent shall submit approved final mine closure plan for the next spell of mine closure activities along with the EIA/EMP report.
5. The PP shall furnish a letter from DFO on the proximity details of nearest any other Wild Life sanctuaries & Protected areas with respect to the proposed project site.
6. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
7. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
8. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD mines.
  - What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - Quantity of minerals mined out.
  - Highest production achieved in any one year

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

- Detail of approved depth of mining.
  - Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leased area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
9. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
  10. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
  11. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
  12. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, past & present working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
  13. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons appointed during the violation period as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
  14. The Project Proponent shall conduct the hydro-geological study involving any of these scientific Institutions - IIT-Madras, NIT Trichy, Anna University-CEG Campus, Chennai and University of Madras - Centre for Environmental Sciences, Guindy Campus considering the contour map of the water table detailing the

number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

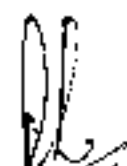
15. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
16. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts during the past and present. Accordingly, the Environment Management plan shall be prepared for including it into the mine closure activities keeping the concerned quarry and the surrounding habitations in the mind.
17. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
18. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
19. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

20. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
21. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
22. The PP shall produce/display the EIA report. Executive summary and other related information with respect to public hearing in Tamil Language also.
23. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
24. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
25. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
26. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
27. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN



28. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
29. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
30. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
31. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
32. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
33. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
34. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.


**Agenda No: 382-03**

**(File No: 6261/2018)**

**Existing Garnet sand Mine over an extent of 2.10.0Ha at S.F.No. 95/2A, 2B, 5A, 5B, 6A, 6B, 4B, 4C, 97/2B & 97/2E for over an extent of 2.10.0Ha in Kottathur Village, Musiri Taluk and Trichy District, Tamil Nadu by Tvl.S.S.Minerals. (For Terms of Reference (SIK/TN/MIN/24168/2017 Dt: 11.04.2018)**

  
MEMBER SECRETARY  
SEAC -TN

17

  
CHAIRMAN  
SEAC - TN

The proposal was earlier placed in the 347<sup>th</sup> meeting of SEAC held on 29.12.2022. 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:

1. The project proponent Tvl.S.S.Minerals has applied seeking Terms of Reference for the preparation of EIA report for the Existing Garnet sand Mine over an extent of 2.10.0Ha at S.F.No. 95/2A, 2B, 5A, 5B, 6A, 6B, 4B, 4C, 97/2B & 97/2E for over an extent of 2.10.0Ha in Kottathur Village, Musiri Taluk and Trichy District 49/2 (Part) of T.Kokkulam Village, Thirumangalam Taluk, Madurai District, Tamil Nadu.
2. The project/activity is covered under Category "B" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.

The PP had submitted a letter dated 11.04.2018 stating the following.

*"...In this connection, we would like to inform you that we have not carried out any mining activity in this lease after the GO referred (3) above as directed by Government. Infact, the last transport permit for this lease was obtained from AD-Mines on 25.07.2013 only. A letter in this regard is obtained from Assistant Director, Department of Geology & Mining Trichirapalli confirming no transport permit was issued to us from 25.07.2013 (Enclosure Under the above circumstances, since ours is less than 5 Ha category mine and we have not carried out mining activity after July 2013, we request you not to consider our proposal under violation case projects and process our cartier application at the earliest under normal category..."*

3. The Lessee not carried out any production activity due to the quarrying operation was suspended and this quarry was falling in violation as per the notification 804(E), dated 14.03.2017 pointed out by Ministry of Environment, Forest and Climate Change. Hence, transport permit not issued by the competent authority for non-submission of Environment Clearance Certificate.
4. In this connection, the PP had submitted a letter obtained from the Assistant Director Dept. of Geology and Mining, Tiruchirapalli vide letter No.

220/2002/mines dated: 06.04.2018 and stating the following.

*"...In this connection it is informed that as per available records of this office, it is found that the last transport permit had been issued to the lessee on 25.07.2013 vide bulk permit No.1864 on payment of royalty of Rs.22,500/- (Rupees twenty-two thousand and five hundred only) to transport 500 mts. of garnet sand from the above said garnet sand mines. Further, no transport permit was issued to the lessee from 25.07.2013..."*

5. SEAC noted that as per G.O.No.173 Dated 17.09.2013 para 3 (iii) states that,

*"...The District Collectors of Tirunelveli, Tiruchirapalli, Kanniyakumari and Madurai will issue proceedings directing all private lessees of major minerals like Garnet, Ilmenite and Rutile etc., in Tirunelveli, Tiruchirapalli, Kanniyakumari and Madurai Districts to immediately stop the mining operations pending completion of the inspections by the Special Team..."*

Based on the presentation made by the proponent, the SEAC decided to defer the proposal. On the receipt of G.O copy to permit the grant of garnet sand quarry and the Cluster letter from the concerned AD (Geology & Mines), the SEAC will consider this proposal for further course of action. Further during the meeting, the PP informed the SEAC that they have filed two applications, one seeking ToR (vide application No. 24168) under violation category and another for EC (vide application No. 62109). The PP wanted to withdraw the proposal No. 24168 applied seeking ToR under violation category and to retain the application No. 62109 Dt. 28.1.2017 for Environmental Clearance. The same was accepted by the SEAC.

On receipt of additional particulars sought from the PP, the proposal was now placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Whereas the PP informed the committee that the Project site is a cluster and the project activity falls under B1 category they would like to retain ToR (vide application No. 24168) under violation category and withdraw the application filed for EC (vide application No. 62109). The Committee decided to admit this application seeking ToR as the project activity falls under B1 category and allowed the PP to withdraw the other application filed seeking EC for the same project.

Based on the presentation made by the proponent, SEAC recommended to grant of

  
MEMBER SECRETARY  
SEAC -TN

19

  
CHAIRMAN  
SEAC -TN

**Terms of Reference (TOR) with Public Hearing** subject to the following TORs in addition to the standard Terms of Reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
2. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
3. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.
4. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.
5. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
6. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.
7. The PP shall provide all documents including approved mine plan/ approved scheme of mining. EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
8. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area

should clearly show the land use and other ecological features of the study area (core and the buffer zone).

9. The PP shall indicate the level of Impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
10. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
11. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
12. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
13. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc. within 1 km radius around the proposed mining area from the Govt records.
14. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the proposed mining activity.
15. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.
16. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine

  
MEMBER SECRETARY  
SEAC -TN

21

  
CHAIRMAN  
SEAC -TN

- lease, its land use, R&R issues, if any, should be provided.
17. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
  18. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
  19. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
  20. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  21. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
  22. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
  23. The PP shall disclose the details of litigation / violation case pending against the project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.
  24. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
  25. Detailed study report on flora and fauna in and nearby the quarry site.

26. The Proponent shall develop greenbelt and gartand drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
27. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
28. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
29. The PP shall furnish the water requirement for the project. Its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
30. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
31. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
32. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.
  - iii. Highest production achieved in any one year
  - iv. Detail of approved depth of mining.
  - v. Actual depth of the mining achieved earlier.
  - vi. Name of the person already mined in that leases area.

  
MEMBER SECRETARY  
SEAC -TN

23

  
CHAIRMAN  
SEAC -TN

- vii. If EC and CTO already obtained, the copy of the same shall be submitted.
- viii. Whether the mining was carried out as per the approved mine plan (or EC if issued).
33. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
34. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
35. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
36. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
37. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
38. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.



39. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
40. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
41. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
42. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
43. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
44. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
45. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
46. A detailed mine closure plan for the proposed project shall be included in EIA/EEMP report which should be site-specific.
47. Public Hearing points raised and commitments of the Project Proponent on the

  
MEMBER SECRETARY  
SEAC - TN

25

  
CHAIRMAN  
SEAC - TN

- same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
48. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
49. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
50. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
51. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
52. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
53. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
54. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.

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

Agenda No: 382-04  
(File No: 9982/2023)

  
MEMBER SECRETARY  
SEAC - TN

27

  
CHAIRMAN  
SEAC - TN

Proposed BLACK GRANITE quarry over an extent of 15.47.5 Ha at S.F.No. 331 and 148 (Part), in Veeramangalam & Mahankalikapuram Village, R.K.Pettai Taluk, Tiruvallur District, Tamil Nadu by M/s. TAMILNADU MINERALS LIMITED - For Terms of Reference (SIA/TN/MIN/425553/2023 dt 13.04.2023)

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. 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 Proponent, M/s. Tamilnadu Minerals Limited has applied seeking Terms of Reference for the proposed BLACK GRANITE quarry over an extent of 15.47.5 Ha at S.F.No. 331 and 148 (Part) in Veeramangalam & Mahankalikapuram Village, R.K.Pettai Taluk, Tiruvallur District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "BI" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.

Based on the presentation made by the proponent, SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing subject to the following TOR in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent shall submit the details of utilization of total quantity of granite Waste till the life of the quarry period for beneficial purpose.
2. The proponent shall submit the progressive mine closure & rehabilitation plan for the proposed granite mine.
3. The PP shall submit the Long term and short term ecological and environmental impacts due to storage, handling, and transportation of granite waste for beneficial purpose (or) otherwise.
4. The PP shall deliberate the possibility of utilizing the waste and any tailings obtained from the processing plant for the land back filling operations.
5. The PP shall provide the details on Impact due to transportation of the granite waste on the access road and the equipments, and social impacts

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

6. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
7. Detailed study report on flora and fauna in and nearby the quarry site.
8. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
9. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be Included in EIA Report.
10. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
11. The project proponent shall submit approved mining plan for the next spell of mining along with the EIA/EMP report.
12. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
13. The Proponent shall submit a conceptual 'Slope Stability Assessment' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the proposed working is extended beyond 30 m below ground level.
14. The Proponent shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.
15. The Proponent shall present a conceptual design for carrying out only controlled blasting operation involving line drilling in the proposed quarry such that the blast-induced ground vibrations are controlled.

  
MEMBER SECRETARY  
SEAC - TN

29

  
CHAIRMAN  
SEAC - TN

16. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
17. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD mines,
- What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - Quantity of minerals mined out.
  - Highest production achieved in any one year
  - Detail of approved depth of mining.
  - Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leases area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
18. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
19. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
20. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
21. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the

surrounding environment and the remedial measures for the same.

22. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
23. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
24. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
25. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
26. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
27. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

  
MEMBER SECRETARY  
SEAC - TN

31

  
CHAIRMAN  
SEAC - TN

28. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
29. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
30. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
31. Impact on local transport infrastructure due to the Project should be indicated.
32. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
33. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
34. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
35. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
36. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
37. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN



38. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, In addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
39. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
40. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
41. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
42. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
43. Public health implications of the Project and related activities for the population in the Impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
44. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given

  
MEMBER SECRETARY  
SEAC - TN

33

  
CHAIRMAN  
SEAC - TN

- with time frames for implementation.
45. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
46. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
47. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
48. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
49. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-05**

**(File No: 6408/2018)**

**Existing Aminabad Limestone Mine (Existing Mining Lease for Captive use) – Extent – 4.945 Ha. ROM Limestone Production –1.2 Lakh Tons Per Annum - SF Nos. 104/1C, 104/2A, 2B, 2C, 2D, 2E, 105/1, 2, 3, 4, 5, 5A, 6b & 7 of Aminabad Village, Arhialur Taluk & District, Tamil Nadu by M/s. Chettinad Cement Corporation Private Limited (CCCPL)- For Terms of Reference under Violation category (SIA/TN/MIN/25020/2018 Dt: 13.04.2018)**

The proposal was earlier placed in the 342<sup>nd</sup> meeting of SEAC held on 30.12.2023. 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:

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

1. The project proponent M/s. Chettinad Cement Corporation Private Limited (CCCPL) has applied for Terms of Reference for the Existing Aminabad Limestone Mine (Existing Mining Lease for Captive use) - Extent - 4.945 Ha. ROM Limestone Production - 1.2 Lakh Tons Per Annum - SF Nos. 104/1C, 104/2A, 2B, 2C, 2D, 2E, 105/1, 2, 3, 4, 5, 6A, 6b & 7 of Aminabad Village, Ariyalur Taluk & District, Tamil Nadu, Tamil Nadu.
2. The project/activity is covered under Violation Category "B" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006, as amended.

During the meeting the Committee noted that the project proponent is absent during the meeting. Hence the subject was not taken up for discussion and the project proponent shall furnish the reason for his absence. Further, the Project Proponent vide Ir. CCCPL /AMB-ARY/EC-02 Dt:28.12.2022 has informed that they have decided not to pursue further on process of obtaining EC and requested SEIAA to dispose of their application seeking EC. In view of the above, SEAC noted that the PP has informed that the last transport permit was issued Dt: 28.08.2016.

Hence, the PP shall furnish documentary evidences so as to consider their request for withdrawal of said proposal seeking EC.

The proposal was taken up for discussion in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to grant of **Terms of Reference (TOR) without Public Hearing under Violation category**, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and the EIA/EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an Independent chapter by the accredited consultants which should be submitted within **one year** from the date of issue of ToR.

1. The PP shall furnish an affidavit stating that the intended application seeking ToR is only as part of statutory obligation to enable mine closure and that no mining activity will be carried out by the PP.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN

2. The SEIAA-TN shall request to initiate the action U/s 19 of E(P) Act 1986 for their violation.
3. The PP shall prepare an Independent chapter in the Environment Impact Assessment report for the specific conditions stipulated by the SEAC on assessment of ecological damage, remediation plan and natural and community resource augmentation plan as given in the Annexure-III.
4. The PP shall enumerate the structures located in 100m, 200m & 300m from the project site and the same shall be included in the EIA report.
5. The project proponent shall submit approved mining plan for the next spell of mining along with the EIA/EMP report.
6. The PP shall furnish a letter from DFO on the proximity details of nearest any other Wild Life sanctuaries & Protected areas with respect to the proposed project site.
7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
8. The Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.
9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
  - a) What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b) Quantity of minerals mined out.
  - c) Highest production achieved in any one year
  - d) Detail of approved depth of mining.
  - e) Actual depth of the mining achieved earlier.
  - f) Name of the person already mined in that leases area.
  - g) If EC and CTO already obtained, the copy of the same shall be submitted.
  - h) Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
13. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
15. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m shall be enumerated with details such as dwelling houses with number of occupants, places of worship, industries, factories, sheds, etc.
16. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

17. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
18. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
19. The Project Proponent shall conduct the hydro-geological study involving any of these scientific institutions - CSIR-CIMFR, Dhanbad, IIT-Madras, NIT Trichy, Anna University-CEG Campus, Chennai and University of Madras - Centre for Environmental Sciences, Guindy Campus considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
20. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
21. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
22. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.

23. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
24. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R Issues, if any, should be provided.
25. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
26. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
27. Impact on local transport infrastructure due to the Project should be indicated.
28. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
29. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
30. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to

  
MEMBER SECRETARY  
SEAC -TN

39

  
CHAIRMAN  
SEAC -TN

- improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
33. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
  34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
  37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
  38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

  
 MEMBER SECRETARY  
 SEAC - TN

  
 CHAIRMAN  
 SEAC - TN



39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No:382-06**

**File No: 518/2013)**

**Construction of Medical Hospital building without prior Environmental clearance by M/s. Velammal Medical College & Hospital & Research Institute at S.F.Nos. 62/6, 62/7, 63/9A, 63/9B, 63/9C, 64/2, 64/7B, 70/2A, 70/2B, 71/1, 71/3, 71/4A, 72/2, 72/3A, 72/3B, 72/4A, 72/4B, 72/4C, 72/4D, 72/5, 72/6, 72/7, 72/8, 72/9A, 72/9B1, 72/9B2, 72/10, 72/11A, 72/11B, 72/12, 72/13, 73/4A(P), 73/4B, 73/13, 80/5 of Anuppenadi Village, Madurai South Taluk, Madurai District, Tamil Nadu - For Environmental Clearance under Violation. (SIA/MIS/201965/2021, dated: 05.03.2021)**

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. 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:**

1. The project proponent, M/s. Velammal Medical College & Hospital & Research Institute has applied for Environmental Clearance for the Existing Construction

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

- of Medical Hospital building at S.F.Nos. 62/6, 62/7, 63/9A, 63/9B, 63/9C, 64/2, 64/7B, 70/2A, 70/2B, 71/1, 71/3, 71/4A, 72/2, 72/3A, 72/3B, 72/4A, 72/4B, 72/4C, 72/4D, 72/5, 72/6, 72/7, 72/8, 72/9A, 72/9B1, 72/9B2, 72/10, 72/11A, 72/11B, 72/12, 72/13, 73/4A(P), 73/4B, 73/13, 80/5 of Anuppanadi Village, Madurai South Taluk, Madurai District, Tamil Nadu.
2. The project activity is covered under Category 'B2' of Item 8(a) 'Building and construction project' of the Schedule to the EIA Notification, 2006, as amended.
  3. The existing EC built up area is 143163.0155sq.m, now applied built up area is 101124.64 Sq.m and total plot area is 50296.00 Sq.m. Total project cost is 46103 Lakhs.
  4. Terms of Reference under violation was issued by SEIAA-TN vide U.No.SEIAA-TN/F.No.518/Violation/TOR-822/2020, Dated:23.11.2020.

The Committee further noted that, the then SEAC vide minutes of 218<sup>th</sup> meeting of SEAC held on 09.07.2021 has furnished its recommendation for the grant of Environmental Clearance under violation category subject to the conditions stated therein. And the Authority during its 452<sup>nd</sup> meeting held on 09.08.2021 called for the following particulars from the PP as recommended by SEAC.

1. Accordingly, the amount prescribed for Ecological remediation (Rs.25.5lakhs), natural resource augmentation (Rs.15lakhs) & community resource augmentation (Rs.20lakhs), totalling Rs.60.50 Lakhs. Hence the SEAC decided to direct the project proponent to remit the amount of Rs.60.50 Lakhs in the form of bank guarantee to Tamil Nadu Pollution Control Board and submit acknowledgement of the same to SEIAA-TN. The funds shall be utilized for the ecological damage remediation plan, Natural resource augmentation plan & Community resource augmentation plan as indicated in the EIA/EMP report
2. The amount committed by the Project proponent for CER (Rs.50 Lakhs) shall be remitted in the form of DD to the beneficiary for the activities committed by the proponent. A copy of receipt from the beneficiary shall be submitted to SEIAA-TN
3. As per the MoEF & CC Office Memorandum F.No.22-65/2017-IA.II dated:30.09.2020 and 20.10.2020 the proponent shall furnish the detailed EMP

mentioning all the activities of proposed CER for entire project other than the CER amount of Rs.50Lakhs to be remitted before the issue of Environmental clearance.

4. The project proponent shall submit the proof for the action taken by the state Government/TNPCB against project proponent under the provisions of Section 19 of the Environment (Protection) Act, 1986 as per the EIA Notification dated: 14.03.2017 and amended 08.03.2018.

On receipt of the additional particulars from the PP, the subject was placed in the 607<sup>th</sup> meeting of the Authority held on 03.04.2023. The Authority noted that a case against the project has been filed before the Hon'ble NGT(SZ) vide O.A No. 08/2021 against the Proponent and is still pending. Hence the Authority decided to refer back the proposal to SEAC to furnish remarks on the same.

In view of the above the subject was taken up for discussion in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Based on the presentation and documents furnished, the

- SEAC directed the Project proponent to obtain and furnish legal opinion on the legal implications in issuing EC under violation category to the project while the legal case filed before the Hon'ble NGT(SZ) vide O.A No. 08/2021 against the Proponent is still pending.

**Agenda No. 382 - 07**

**(File No. 9941/2023)**

**Proposed Expansion of Industrial shed by M/s Volumus Developers Pvt Ltd at S.F.No. 19/2A1B, 19/3, 19/4, 22/1, 22/2A1, 22/2C, 23,24/1, 24/2, 25, 26, 27/1, 27/2, 27/3A, 27/3B, 27/4, 28/1, 28/2, 29/1, 29/2, 30/1A1, 30/1B, 30/2A, 30/3A, 31/1B, 31/2A1, 31/2B, 32, 33, 34/1, 34/2, 51/1, 51/2, 52/1A, 52/1B, 52/2A, 52/3A, 52/4A, 52/4B, 53/3, 64/3, 66/1, 67/1A, 68/1, 69/1A, 69/2A, 70/1A, 70/1B, 70/2A, 71/1, 71/2, 71/3A2, 71/3B, 71/3C, 71/3D, 71/3E1, 71/3E2, 71/3E3, 72/2, 73/2A, 1026/2A, 199/3, 199/4, 196, 195/1, 195/2, 195/4, 195/5, 194/1B, 194/2, 193/1, 193/2, 195/3, 202/3A2, 202/1, 203/1, 203/2, 204/1, 204/3, 205/2, 199/1, 202/4, 198/2B, 140/5, 140/4, 202/2, 203/4, 206/1C, 204/2, 206/1B1, 198/2A, 197/1, 197/2B, 198/2C, 202/3B, 206/2B Part, 198/1, 201/2B, 201/1, 205/1, 206/1B2, 206/1A1, 206/1A3, 202/3A1, 201/2A, 203/3, 206/1A2,**

  
MEMBER SECRETARY  
SEAC -TN

43

  
CHAIRMAN  
SEAC - TN

36/3A, 35/2, 36/2, 37/2, 37/3, 36/1, 37/1, 38,40/2, 36/3B2, 40/1 Part, 35/1A1, 35/1A2, 212/1, 213/1, 219/1, 219/2, 218,217/1, 217/2A1, 217/2A2, 217/2B, 217/3, 216/1, 216/2, 215/1, 215/2, 215/3A, 215/3B, 215/4, 215/5, 214, 213/1, 213/2, 213/3, 212/1A, 212/1B, 212/1C, 212/2A1, 212/2A2, 212/2A3, 212/2B, 211/1, 211/2A, 211/2B, 211/3, 211/4, 211/5, 210/1, 210/2, 210/3, 210/4, 209/1, 209/2, 207/1, 207/2, 207/3, 207/4, 207/5, 206/2A1, 206/2A2, 206/2B, 206/3, 220/1, 219/3, 220/2, 221 of Vadakupattu Village, Kundrathur Taluk, Kancheepuram district and S. Nos. 14/2 (Pt), 14/3, 14/4, 14/6 pt, 14/7 (Pt), 14/B, 15/1C Pt, 15/2A Pt, 15/3A, 15/4A, 15/5B1 of Padharvadi Village, Sriperumbudur Taluk & Kancheepuram district, Tamil Nadu for Terms of Reference. (SIA/TN/INFRA2/422750/2023, dated: 20.03.2023)

The proposal was placed in this 382<sup>nd</sup> Meeting of SEAC held on 09.06.2023. The project proponent gave detailed presentation. 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 proponent, M/s Volumnus Developers Pvt Ltd has applied for Terms of Reference for the Proposed Expansion of Industrial shed by M/s Volumnus Developers Pvt Ltd at S.F.No. 19/2A1B, 19/3, 19/4, 22/1, 22/2A1, 22/2C, 23,24/1, 24/2, 25, 26, 27/1, 27/2, 27/3A, 27/3B, 27/4, 28/1, 28/2, 29/1, 29/2, 30/1A1, 30/1B, 30/2A, 30/3A, 31/1B, 31/2A1, 31/2B, 32, 33, 34/1, 34/2, 51/1, 51/2, 52/1A, 52/1B, 52/2A, 52/3A, 52/4A, 52/4B, 53/3, 64/3, 66/1, 67/1A, 68/1, 69/1A, 69/2A, 70/1A, 70/1B, 70/2A, 71/1, 71/2, 71/3A2, 71/3B, 71/3C, 71/3D, 71/3E1, 71/3E2, 71/3E3, 72/2, 73/2A, 1026/2A, 199/3, 199/4, 196, 195/1, 195/2, 195/4, 195/5, 194/1B, 194/2, 193/1, 193/2, 195/3, 202/3A2, 202/1, 203/1, 203/2, 204/1, 204/3, 205/2, 199/1, 202/4, 198/2B, 140/5, 140/4, 202/2, 203/4, 206/1C, 204/2, 206/1B1, 198/2A, 197/1, 197/2B, 198/2C, 202/3B, 206/2B Part, 198/1, 201/2B, 201/1, 205/1, 206/1B2, 206/1A1, 206/1A3, 202/3A1, 201/2A, 203/3, 206/1A2, 36/3A, 35/2, 36/2, 37/2, 37/3, 36/1, 37/1, 38,40/2, 36/3B2, 40/1 Part, 35/1A1, 35/1A2, 212/1, 213/1, 219/1, 219/2, 218,217/1, 217/2A1, 217/2A2, 217/2B, 217/3, 216/1, 216/2, 215/1, 215/2, 215/3A, 215/3B, 215/4, 215/5, 214, 213/1, 213/2, 213/3, 212/1A, 212/1B, 212/1C, 212/2A1, 212/2A2, 212/2A3, 212/2B, 211/1, 211/2A, 211/2B, 211/3, 211/4, 211/5,

- 210/1, 210/2, 210/3, 210/4, 209/1, 209/2, 207/1, 207/2, 207/3, 207/4, 207/5, 206/2A1, 206/2A2, 206/2B, 206/3, 220/1, 219/3, 220/2, 221 of Vadakupattu Village, Kundrathur Taluk, Kancheepuram district and S. Nos. 14/2 (Pt), 14/3, 14/4, 14/6 pt, 14/7 (Pt), 14/8, 15/1C Pt, 15/2A Pt, 15/3A, 15/4A, 15/5B1 of Padharvadi Village, Sriperumbudur Taluk & Kancheepuram district, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
  3. Total Plot area is 5,49,360.759 Sqm & the total built-up area of the proposed Industrial Shed is 2,18,713.17 Sqm.

Now, the proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. Based on the presentation and documents furnished by the project proponent, SEAC after detailed deliberations, decided to recommend the proposal for the grant of Terms of Reference (ToR), subject to the following ToRs in addition to the standard terms of reference for EIA study and details issued by the MoEF & CC to be included in EIA/EMP report:

1. The PP shall furnish the proposal for the design of the proposed development shall meet green building norms and should obtain a minimum of IGBC Platinum ranking.
2. The proponent is requested to submit NOC obtained from the Fire Safety Department.
3. PP shall provide details of permanent water supply for the project from local body/Metro Water/TWAD Board.
4. The Proponent shall furnish the details with respect to the location of OSR area along with EIA Report.
5. The PP shall complete construction of pond of appropriate size in the earmarked OSR land in consultation with the local body at the time of submission of EIA Report. The pond should be modelled like a temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the

  
MEMBER SECRETARY  
SEAC -TN

45

  
CHAIRMAN  
SEAC -TN

period of heavy rainfall, and (3) as a structure which was crucial to the overall eco-system.

6. The proponent shall obtain necessary statutory clearance from District Collector as stipulated by DTCP vide O.M.No.3041/2022 K.M.2 Dated: 03.02.2023 and the same shall be submitted along with EIA Report.
7. The Proponent shall submit the details of functioning of STP viz, flowmeter reading (inlet and outlet) and shall submit performance evaluation certified from reputed government institutions like Anna University, IIT-M, NIT-Trichy etc., and the same shall be submitted along with EIA Report.
8. The proponent must complete Rain Water Harvesting measures at the time of submission of EIA Report.
9. The proponent shall submit inundation report for the proposed site.
10. PP shall ensure that DG sets which are proposed to be set up are run on green energy sources instead of Diesel and the same shall be included in EMP along with EIA Report.
11. The proponent shall provide Solar Panels covering minimum of 50% of the total Roof Area and the same shall be included in the EMP along with EIA Report.
12. The treated/untreated sewage water shall not be let-out from the unit premises accordingly revised water balance shall be incorporated.
13. Copy of the village map, FMB sketch and "A" register shall be furnished.
14. Detailed Evacuation plan during emergency/natural disaster/untoward accidents shall be submitted.
15. The space allotment for solid waste disposal and sewage treatment & grey water treatment plant shall be furnished.
16. Details of the Solid waste management plan shall be prepared as per solid waste management Rules, 2016 and shall be furnished.
17. Details of the E-waste management plan shall be prepared as per E-waste Management Rules, 2016 and shall be furnished.
18. Details of the Rain water harvesting system with cost estimation should be furnished.

  
MEMBER SECRETARY  
SEAC-TN

  
CHAIRMAN  
SEAC-TN

19. A detailed storm water management plan to drain out the storm water entering the premises during heavy rains period shall be prepared including main drains and sub-drains in accordance with the contour levels of the proposed project considering the flood occurred in the year 2015 and also considering the water bodies around the proposed project site & the surrounding development. The storm water drain shall be designed in accordance with the guidelines prescribed by the Ministry of Urban Development.
20. The proposed OSR area should not be included in the activity area. The OSR area should not be taken in to account for the green belt area.
21. The layout plan shall be furnished for the greenbelt area earmarked with GPS coordinates by the project proponent on the periphery of the site and the same shall be submitted for CMDA/DTCP approval. The green belt width should be at least 3m wide all along the boundaries of the project site. The green belt area should not be less than 33% of the total land area of the project.
22. Cumulative impacts of the Project considering with other infrastructure developments and industrial parks in the surrounding environment within 5 km & 10 km radius shall be furnished.
23. A detailed post-COVID health management plan for construction workers as per ICMR and MHA or the State Govt. guideline may be followed and report shall be furnished.
24. The project proponent shall furnish detailed baseline monitoring data with prediction parameters for modelling for the ground water, emission, noise and traffic.
25. The proposal for utilization of at least 25% of Solar Energy shall be included in the EIA/EMP report.
26. The proponent shall supply books related to creating awareness on Environmental protection and conservation to Library.

Agenda No. 382 - 08  
(File No. 9962/2023)

  
MEMBER SECRETARY  
SEAC - TN

47

  
CHAIRMAN  
SEAC - TN

**Proposed Rough Stone & Gravel quarry over an extent of 1.86.50 Ha in S.F.No. 79 of Midithepalli Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by Thiru. B.Srikar for Terms of Reference. (SIA/TN/MIN/424319/2023, dated: 31.03.2023)**

The proposal was placed in this 382nd Meeting of SEAC held on 09.06.2023. The project proponent gave detailed presentation. The details of the project furnished by the proponent are available in the website (partvesh.nic.in).

The SEAC noted the following:

1. The project proponent, Thiru. B. Srikar has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry over an extent of 1.86.50 Ha in S.F.No. 79 of Midithepalli Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 10 years. The mining plan is for 10 years & production should not exceed 2.24,329m<sup>3</sup> of Rough Stone & 33,210m<sup>3</sup> of Gravel for the first five years and 1,09,400 m<sup>3</sup> of Rough Stone for second five years. The annual peak production 75,579m<sup>3</sup> of Rough Stone & 33,210m<sup>3</sup> of Gravel. The ultimate depth of mining is 39 BGL (2m – Gravel + 37m – Rough Stone).

Now, the proposal was placed in the 382nd Meeting of SEAC held on 09.06.2023. Based on the presentation made by the proponent SEAC recommended grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent is requested to submit the valid registered lease document during the EIA appraisal after the previous lease granted for the mining operations is legally surrendered (or) lapsed with the consent of the competent authority.
2. The proponent is requested to carry out a survey and enumerate on the structures located within 100m, 200m, 300m from the boundary of the mine lease area.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN



3. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
4. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Necessary data and documentation in this regard may be provided.
5. The proponent shall submit the "Blast Design Parameters for controlling the vibration and flyrock from the quarry blasting" considering the existence of sensitive structures including habitations within 1 km from the lease boundary.
6. The PP shall submit a 'Slope Stability Action Plan' for the proposed quarry where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.
7. The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., upto a radius of 25 km from the proposed site.
8. The PP shall provide individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.
9. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation only including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-Induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
10. Details of Green belt & fencing shall be included in the EIA Report.

  
MEMBER SECRETARY  
SEAC - TN

49

  
CHAIRMAN  
SEAC - TN

11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
11. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
- What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - Quantity of minerals mined out.
  - Highest production achieved in any one year
  - Detail of approved depth of mining.
  - Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leases area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
12. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
13. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
14. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
15. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be

appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

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

  
MEMBER SECRETARY  
SEAC-TN

51

  
CHAIRMAN  
SEAC-TN

23. Impact on local transport infrastructure due to the Project should be indicated.
24. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
25. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
26. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
27. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
28. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
29. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
30. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
31. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the

boundary of the project site with at least 3 meters wide and in between blocks in an organized manner

32. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
33. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
34. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
35. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
36. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
37. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
38. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
39. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

  
MEMBER SECRETARY  
SEAC -TN

53

  
CHAIRMAN  
SEAC- TN

40. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

41. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Agenda No. 382 - 09

(File No. 9969/2023)

Proposed Rough Stone & Gravel quarry over an extent of 1.37.0 Ha in S.F.Nos.1/3(P), 1/7F(P), 1/7G(P), 2/13(P), 3/2(P), 3/5(P), 11/3B1, 11/3B2, 11/3B3, 11/3B4(P), 11/3B5, 11/4A(P), 11/4B(P), 11/4C(P), 11/4D, 11/5B & 11/6(P) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu by Thiru. M. Baskaran for Terms of Reference, (SIA/TN/MIN/424768/2023, dated: 05.04.2023)

The proposal was placed in this 382<sup>nd</sup> Meeting of SEAC held on 09.06.2023. The project proponent gave detailed presentation. The details of the project furnished by the proponent are available in the website (parvesh.nic.in).

The SEAC noted the following:

1. The project proponent, Thiru. M. Baskaran has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry over an extent of 1.37.0 Ha in S.F.No. S.F.Nos.1/3(P), 1/7F(P), 1/7G(P), 2/13(P), 3/2(P), 3/5(P), 11/3B1, 11/3B2, 11/3B3, 11/3B4(P), 11/3B5, 11/4A(P), 11/4B(P), 11/4C(P), 11/4D, 11/5B & 11/6(P) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 10 years. The mining plan is for 5 years & production should not exceed 88,260m<sup>3</sup> of Rough Stone & 9,480m<sup>3</sup> of Gravel for the five years. The annual peak production 21,060m<sup>3</sup> of Rough Stone. The ultimate depth of mining is shown as 17 BGL.

During the presentation, proponent stated that he would like to withdraw the proposal. Hence, SEAC decided to accept the proponent's request to withdraw the proposal and SEIAA may accordingly take necessary action in accordance with the procedures laid by the MoEF & CC.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

**Agenda No. 382 - 10**

**(File No. 9990/2023)**

**Proposed Rough Stone & Gravel quarry over an extent of 1.18.5 Ha in S.F.No. S.F.Nos. 153/2, 3, 4A, 4B, 4C & 5 of Veerapatti Village, Iluppur Taluk, Pudukottai District, Tamil Nadu by Thiru. P. Sabapathi for Terms of Reference. (SIA/TN/MIN/425623/2023, dated: 12.04.2023)**

The proposal was placed in this 382<sup>nd</sup> Meeting of SEAC held on 09.06.2023. The project proponent gave detailed presentation. 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 proponent, Thiru. P. Sabapathi has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry over an extent of 1.18,5 Ha In S.F.No. S.F.Nos. 153/2, 3, 4A, 4B, 4C & 5 of Veerapatti Village, Iluppur Taluk, Pudukottai District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 5 years. The mining plan is for 5 years & production should not exceed 1,00,727m<sup>3</sup> of Rough Stone & 8,820m<sup>3</sup> of Gravel for the five years. The annual peak production 23,310m<sup>3</sup> of Rough Stone & 5,202m<sup>3</sup> of Gravel. The ultimate depth of mining is 42m BGL.

Now, the proposal was placed in the 382<sup>nd</sup> Meeting of SEAC held on 09.06.2023. Based on the presentation made by the proponent SEAC recommended grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent is requested to submit the valid registered lease document during the EIA appraisal after the previous lease granted for the mining operations is legally surrendered (or) lapsed with the consent of the competent authority.
2. The proponent is requested to carry out a survey and enumerate on the structures located within 100m, 200m, 300m from the boundary of the mine

  
MEMBER SECRETARY  
SEAC -TN

55

  
CHAIRMAN  
SEAC -TN

- lease area.
3. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
  4. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Necessary data and documentation in this regard may be provided.
  5. The proponent shall submit the "Blast Design Parameters for controlling the vibration and flyrock from the quarry blasting" considering the existence of sensitive structures including habitations within 1 km from the lease boundary.
  6. The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., upto a radius of 25 km from the proposed site.
  7. The PP shall provide individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.
  8. Since the quarry is existing with a depth of excavation varies from 6 m to 19 m without benches of appropriate dimension (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of these reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal - Dept of Mining Engg.. The above studies shall spell out 'a 'Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit slope angle where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the



benches intact.

9. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-Induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
10. Details of Green belt & fencing shall be included in the EIA Report.
11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with Drone video and photographic evidences.
12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a) What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b) Quantity of minerals mined out.
  - c) Highest production achieved in any one year
  - d) Detail of approved depth of mining.
  - e) Actual depth of the mining achieved earlier.
  - f) Name of the person already mined in that leases area.
  - g) If EC and CTO already obtained, the copy of the same shall be submitted.
  - h) Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
13. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. The PP shall carry out Drone video survey covering the dustet, Green belt.

  
MEMBER SECRETARY  
SEAC -TN

57

  
CHAIRMAN  
SEAC -TN

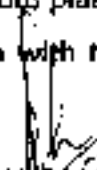
fending, Garland drainage etc..

15. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
16. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
17. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
18. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
19. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
20. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
21. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.

22. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
23. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
24. Impact on local transport infrastructure due to the Project should be indicated.
25. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
26. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
27. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
28. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily
29. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
30. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
31. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO,

  
MEMBER SECRETARY  
SEAC -TN

59

  
CHAIRMAN  
SEAC -TN

State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

32. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
33. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
34. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
35. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
36. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
37. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
38. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
39. Benefits of the Project if the Project is implemented should be spelt out. The

benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

40. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
41. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
42. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No. 382 - 1)**  
**(File No. 6507/2018)**

**Proposed Garnet sand over an extent of 4.75.5 Ha in S.F.Nos. 390(P) of Kottathur Village, Musiri Taluk, Trichy District, Tamil Nadu by Tvl. Riverways Mines and Minerals Ltd for Terms of Reference. (SIA/TN/MIN/21940/2018, dated: 09.02.2018)**

The proposal was placed in this 382<sup>nd</sup> Meeting of SEAC held on 09.06.2023. The project proponent gave detailed presentation. The details of the project furnished by the proponent are available in the website ([parivesh.nic.in](http://parivesh.nic.in)).

The SEAC noted the following:

1. The project proponent, Tvl. Riverways Mines and Minerals Ltd has applied for Terms of Reference for the Proposed Garnet sand over an extent of 4.75.5 Ha in S.F.Nos. 390(P) of Kottathur Village, Musiri Taluk, Trichy District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, the proposal was placed in the 610<sup>th</sup> authority meeting held on 11.04.2023. The Authority noted the following:

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC- TN

- (i) Earlier, the subject was placed in the 347<sup>th</sup> SEIAA meeting held on 21.06.2019 and the authority has observed that the proponent has not submitted the necessary clarification for non-applicability of this quarry for the order issued by Ministry of Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority as requested by the Authority in the 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. Hence the authority decided to stick with the clarification request in the 342<sup>nd</sup> SEIAA meeting that is:

The proponent shall obtain necessary clarification for non-applicability of this quarry for the letter on the order issued by Ministry of Mines vide F.No.1/1/2019-M.VI dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority.

- (ii) Now, the proponent has submitted the reply to SEIAA vide letter dated 05.04.2023.

On the receipt of the reply received from the PP it was again placed in the 610<sup>th</sup> Authority meeting held on 11.04.2023. After detailed discussion, SEIAA decided to refer back this proposal on the PP's reply along with recommendation in addition to the following aspects.

- a) The impact of mining on geology, land area, topography, biological, marine, resources and other environmental parameters may be examined/studied.
- b) Anticipated impact on water bodies, reservoir, river may be examined/studied.
- c) Through a detailed soil profiling, the quality & mineral ingredients and analysis in the soil composition may be examined.

In view of the above, the proposal was placed in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023. Based on the presentation made by the proponent, SEAC decided to recommend the proposal for Terms of Reference (TOR) with Public Hearing subject to the following additional TORs. In addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

1. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
2. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
3. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.
4. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.
5. The PP shall provide all documents including approved mine plan/ approved scheme of mining, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
6. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
7. The PP shall indicate the level of impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the Infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
8. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
9. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

- sheds, etc.
10. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
  11. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc. within 1 km radius around the proposed mining area from the Govt records.
  12. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the proposed mining activity.
  13. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.
  14. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
  15. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
  16. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
  17. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
  18. The PP shall anticipate the Occupational and health impacts of the project and

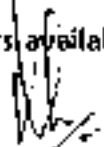


accordingly the proposed preventive measures spell out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.

19. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
20. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
21. The PP shall disclose the details of litigation / violation case pending against the project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.
22. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
23. Detailed study report on flora and fauna in and nearby the quarry site.
24. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
25. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
26. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
27. The PP shall furnish the water requirement for the project, its availability and

  
MEMBER SECRETARY  
SEAC - TN

65

  
CHAIRMAN  
SEAC - TN

- source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
28. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
29. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
30. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.
  - iii. Highest production achieved in any one year
  - iv. Detail of approved depth of mining.
  - v. Actual depth of the mining achieved earlier.
  - vi. Name of the person already mined in that leases area.
  - vii. If EC and CTO already obtained, the copy of the same shall be submitted.
  - viii. Whether the mining was carried out as per the approved mine plan (or EC if issued).
31. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
32. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
33. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved

mining plan.

34. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
35. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
36. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
37. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
38. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
39. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
40. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies,

  
MEMBER SECRETARY  
SEAC - TN

67

  
CHAIRMAN  
SEAC - TN

- human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
41. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
  42. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
  43. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
  44. A detailed mine closure plan for the proposed project shall be Included In EIA/EMP report which should be site-specific.
  45. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
  46. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
  47. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
  48. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
  49. The purpose of Greenbelt around the project is to capture the fugitive emissions.

carbon sequestration and to attenuate the noise generated. In addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

50. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
51. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
52. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
53. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
54. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
55. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

  
MEMBER SECRETARY  
SEAC -TN

69

  
CHAIRMAN  
SEAC -TN

56. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
57. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
58. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
59. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
60. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Agenda No: 382-12

(File No: 7445/2020)

Proposed Rough stone, Gravel & Earth quarry lease over an extent of 4.41.5ha at S.F.No.713 in Vembakottai Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu by Tmt. P. Kaladevi- For Environmental Clearance. (SIA/TN/MIN/139316/2020, dated: 30.01.2020)

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The project proponent gave detailed presentation. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project proponent, Tmt. P. Kaladevi has applied for Environmental Clearance for the proposed Rough stone & Gravel quarry lease over an extent of 4.41.5ha at S.F.No. 713 in Vembakottai Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu.
2. The project/activity is covered under Category "B2" of Item 1(a) Mining of

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

Mineral Projects' of the Schedule to the EIA Notification, 2006.

3. The production for the five years states that the total quantity of recoverable should not exceed 70,680cu.m of Rough stone, 1,00,960cu.m of Gravel & 20,192cu.m of Earth for the depth of mining is 11m (1m - Earth + 5m - Gravel + 5m - Rough Stone) BGL.
4. Earlier the proposal was placed in 207<sup>th</sup> SEAC meeting held on 17.03.2021. On initial discussions, the proponent was claiming through an appeal that the lease agreement need not be registered as per the registration of Companies Act. However, SEIAA has obtained legal opinion on this issue and it was very clearly stated by the legal advisor that the lease agreement needs to be registered and hence SEAC directed the proponent to furnish the following detail.

The proponent shall furnish copy of registered lease deed agreement for proposed mining lease area since, the proponent has furnished an unregistered lease document.

On receipt of the above details, the SEAC decided to direct the proponent to make a presentation for the further course of action on the proposal.

5. Subsequently, the proposal was placed for appraisal in the 259<sup>th</sup> meeting of SEAC held on 31.03.2022. The Project proponent has made the re-presentation along with clarification for the above shortcomings observed by the SEAC. Based on the presentation and document furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance.
6. Subsequently, the subject was placed before the Authority in its 505<sup>th</sup> meeting held on 09.05.2022. The Authority noted that the distance between the proposed mine lease area & the following waterbodies Solasserri River, Cholapuram River, Vaippar River, Streams/ Odais & Kanmoi appears very close. In view of the above, the Authority after detailed discussions, decided to refer back the proposal to SEAC for re-appraisal in regard to the following details,
  - i) The project proponent shall furnish correct details of shortest distance of waterbodies such as Rivers, Odai, Kanmoi, Tanks, Pond, streams etc in the vicinity 1km, 500 m & 300 m radius from the boundary of the proposed mine lease area.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

7. Subsequently, the proposal was placed for appraisal in 285<sup>th</sup> meeting of SEAC held on 16.06.2022. The Project proponent made a presentation along with clarification for the above shortcomings observed by the SEIAA.

S.No	Water Bodies	Distance
1	Marugal Odai	500m-N
2.	Vaippar River	940m-S
3	Solasseri River	15.0km-NW
4	Cholapuram River	15.0km-NW

After taking into account the above clarifications furnished by the PP, the Committee decided that a sub-committee of SEAC to be constituted will visit the site and submit a report on the points raised by the SEIAA.

In the light of the above, a sub-committee comprising the following members was constituted by SEAC to inspect and study the field condition in the proposal seeking Environmental Clearance for the proposed rough stone, and gravel quarry on 12.07.2022 (Tuesday) vide Lr.No. SEAC-TN/7445, 7446 Site Inspection/2022 dated 08.07.2022.

Thiru. R. THANGAPRAKASAM, Member SEAC – TN,

Dr. P. BALAMADESWARAN, Member SEAC – TN

#### **OBSERVATIONS & RECOMMENDATIONS OF THE SUB COMMITTEE**

1. The EIA Coordinator (or) Qualified Person who have prepared the Mining Plan was not present in the site to furnish correct details of shortest distance of existing water bodies such as Rivers, Odai, Kanmoi, Tanks, Pond, streams etc in the radial distance of 1km, 500 m and 300 m from the boundary of the proposed mine lease area during the
2. In spite of the best cooperation provided by the Project Proponent, the boundary of the lease hold area and the river course & its highest flood level with reference to the quarry lease hold area were not exactly located by the sub-committee.

SEAC, after a careful examination of the proposal in the light of the remarks made by SEIAA and the observations made by the SEAC subcommittee, decided to request SEIAA to get a clarification from the district AD G&M on the above

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN



points, with particular reference to the directions of the Hon'ble Madras High Court in WP No.20903 of 2016 and the directions of the Director of Geology & Mining in his Lr No. 7240/MM6/2019, dated. 30.07.2021.

8. In this regard, a letter was addressed from the O/o SEIAA-TN to the Assistant/ Deputy Director, Dept. of Geology & Mining, Virudhunagar District vide Letter. No. SEIAA-TN/F.No.7445/2022 dated: 21.02.2023.
9. Subsequently, The Assistant Director, Dept. of G&M has furnished a clarification on the above vide R.C.K.VI/580/2020 dated.11.04.2023.

In this regard, the proposal was again placed again in this 392<sup>nd</sup> meeting of SEAC held on 09.06.2023.

The proposal is for mining of Rough stone, Gravel & Earth quarry and the salient features of the proposal are as follows:

File No	7445		Category	B2
	2020			1(a)
Sl. No	Salient Features of the Proposal			
1.	Name of the Owner/Firm	:	Tmt.RKaladevi D1/130, New housing board colony Sivakasi west - 626124 Sivakasi Taluk Virudhunagar District	
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Rough Stone, Gravel & Earth	
3.	S.F Nos. of the quarry site with area break-up	:	713	
4.	Village in which situated	:	A.Lakshmiapuram	
5.	Taluk in which situated	:	Vembakottai	
6.	District in which situated	:	Virudhunagar	
7.	Extent of quarry (In ha.)	:	4.41.5 Ha(patta land)	

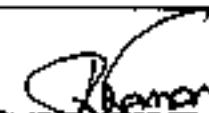
  
MEMBER SECRETARY  
SEAC - TN

73

  
CHAIRMAN  
SEAC - TN

8.	Latitude & Longitude of all corners of the quarry site	: 09°19' 38.22"N to 09°19' 43.72"N 77° 38'15.70"E to 77°38' 28.20"E		
9.	Topo Sheet No.	: 5B- C/11		
10.	Type of mining	: Opencast semi Mechanized mining		
11.	Life of Project	: 5 Years		
	Lease Period	: 5 Years		
	Mining Plan Period	: 5 years		
12.	Mining Plan Details	: As per approved Mining Plan		
	Geological Resources m <sup>3</sup> (RoM)	: As modified by SEAC		
	Movable Resources m <sup>3</sup> (RoM)	Rough stone	Gravel	Top soil/ Earth
		9,18,720m <sup>3</sup>	2,29,680m <sup>3</sup>	45,936m <sup>3</sup>
	Annual Peak Production in m <sup>3</sup>	Rough stone	Gravel	Top soil/ Earth
70,680m <sup>3</sup>		1,00,960m <sup>3</sup>	20,192m <sup>3</sup>	
Maximum Depth in meters	Rough stone	Gravel	Top soil/ Earth	
	14,820m <sup>3</sup>	26,160m <sup>3</sup>	5,232m <sup>3</sup>	
13.	Depth of water table	: 11m BGL		
14.	Man Power requirement per day:	: 10 Nos.		
15.	Water requirement: 1. Drinking water 2. Dust suppression 3. Green belt	: 2.5 KLD 0.5 KLD 1.0 KLD 1.0 KLD		
16.	Power requirement a. Domestic purpose	: TNEB		

	b. Industrial purpose	46,380 Ltrs of HSD		
17.	Precise area communication District Collector Mines with date	Na.Ka.No. KVI/199/2019-Kanimam, dated:17.09.2019		
18.	Mining Plan approved by Assistant Director(i/c), Department of G&M Mines with date	Roc.No. KVI/199/2019, dated:25.11.2019		
19.	Assistant Director(i/c), Department of G&M Mines with date 500m cluster letter	Rc.No. KVI/199/2019, dated:25.11.2019		
20.	VAO Certificate Regarding Structures within 300m Radius	Enclosed		
21.	Project Cost (excluding EMP cost)	Rs. 59,22,400		
22.	EC Recommendation	Validity	30 years subject to the following upper limits.	
			Rough stone	Gravel
		Max Total Excavation RoM in m <sup>3</sup>	70,680 m <sup>3</sup>	1,00,960 m <sup>3</sup>
		Annual Peak Capacity RoM in m <sup>3</sup>	14,820m <sup>3</sup>	26,160m <sup>3</sup>
		Max Depth in mtrs	11m	
23.	EMP cost (in Rs. Lakh).	Capital Cost - Rs. 27.94 Lakhs		

  
MEMBER SECRETARY  
SEAC - TN

75

  
CHAIRMAN  
SEAC, TN

		Recurring Cost - Rs. 14.06 Lakhs
24.	CER cost (in Rs. Lakh).	: Rs. 5,00,000

Based on the clarification furnished by the AD Mines and also the details furnished by the project proponent, after detailed deliberations, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the quantity of 70,680 m<sup>3</sup> of rough stone & 1,00,960 m<sup>3</sup> of gravel with maintaining an ultimate depth of 11 m Below ground level and the annual peak production not exceeding 14,820m<sup>3</sup> of rough stone & 26,160 m<sup>3</sup> of Gravel, subject to the standard conditions as per the Annexure of this minutes & normal conditions stipulated by MOEF&CC, in addition to the following specific conditions. The Committee, however, decided to bring it to the notice of SEIAA, the inappropriate way in which the AD has written the reply and hence SEIAA may consider taking it up with the Director, Department of Geology and Mining, Chennai, to advise the concerned AD/Mines on how to communicate with superior authorities.

- 1) The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.
- 2) The PP shall inform send the 'Notice of Opening' of the quarry to the Director of Mines Safety, Chennai Region before obtaining the CTO from the TNPCB.
- 3) 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.
- 4) The proponent shall appoint the statutory competent persons relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961, as amended from time to time.
- 5) The PP shall construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and

outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.

- 6) Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.
- 7) The proponent shall 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.
- 8) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
- 9) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.
- 10) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
- 11) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
- 12) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.
- 13) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN


- 14) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
- 15) 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.
- 16) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 17) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 18) **Noise and Vibration Related:** (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 19) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 50 to 60 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

- 20) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 21) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 22)The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 23)The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.
- 24)The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.
- 25)Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
- 26)The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
- 27)The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

- 28) The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
- 29) To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
- 30) The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Miner Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
- 31) The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and 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.
- 32) The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
- 33) 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.
- 34) 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.



- 35) 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.
- 36) As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEFCC, the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.
- 37) 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.
- 38) As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere to the EMP as committed.
- 39) As accepted by the Project Proponent the CER cost of Rs. 5 lakhs and the amount shall be spent for the Government High School, Alangulam village before obtaining CTO from TNPCB.

Agenda No: 382-13

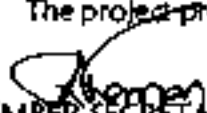
(File No: 7446/2020)

Proposed Rough stone, Gravel & Earth quarry lease over an extent of 1.54.0 ha at S.F.No.1316/1B & 1316/2A in Keezhanmaraninedu Village, Vembakottai Taluk, Virudhunagar District, Tamil Nadu by Tmt. P.Kaladevi- For Environmental Clearance. (SIA/TN/MIN/139266/2020, dated: 30.01.2020)


The proposal is placed in this 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the minutes are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project proponent, Tmt. P.Kaladevi has applied for Environmental Clearance

  
MEMBER SECRETARY  
SEAC -TN

81

  
CHAIRMAN  
SEAC- TN

for the proposed Rough stone & Gravel quarry lease over an extent of 1.54.0ha at S.F.No. 1316/1B & 1316/2A in Keezhanmaraninadu Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu.

2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan the lease period is for 5 years. The production for the five years states that the total quantity of recoverable should not exceed 36,600cu.m of Rough stone, 50,920cu.m of Gravel and 10,184cu.m of Topsoil/Earth with an ultimate depth of mining is 11m. The Annual peak production as per mining plan is 7320cu.m of rough stone and 14,440 cu.m of Gravel.
4. Earlier the proposal was placed in 207<sup>th</sup> SEAC meeting held on 17.03.2021 and was deferred for reason stated in the minutes. The proposal was again placed for appraisal in the 259<sup>th</sup> meeting of SEAC held on 31.03.2022. Based on the presentation and document furnished by the project proponent, SEAC recommended the proposal for the grant of Environmental Clearance subject to the conditions stated therein.
5. Subsequently, the subject was placed before the Authority in its 505<sup>th</sup> meeting held on 09.05.2022. The Authority noted that the distance between the proposed mine lease area & the following waterbodies Solasseri River, Cholapuram River, Valppar River, Streams/ Odais & Kanmoi appears very close.  
In view of the above, the Authority after detailed discussions, decided to refer back the proposal to SEAC for re-appraisal in regard to the following details,

- i) The project proponent shall furnish correct details of shortest distance of waterbodies such as Rivers, Odai, Kanmol, Tanks, Pond, streams etc in the vicinity 1km, 500 m & 300 m radius from the boundary of the proposed mine lease area.

6. Subsequently, the proposal was placed for appraisal in 285<sup>th</sup> meeting of SEAC held on 16.06.2022. The Project proponent made a presentation along with clarification for the above shortcomings observed by the SEIAA.

S.No	Water Bodies	Distance
1	Marugal Odai	500m-N

  
MEMBER SECRETARY  
SEAC -TN

82

  
CHAIRMAN  
SEAC -TN

2.	Vaippar River	940m-S
3	Solasseri River	15.0km-NW
4	Cholapuram River	15.0km-NW

After taking into account the above clarifications furnished by the PP, the committee decided that a sub-committee of SEAC to be constituted will visit the site and submit a report on the points raised by the SEIAA.

In the light of the above, a subcommittee comprising the following members was constituted by SEAC to inspect and study the field condition in the proposal seeking Environmental Clearance for the proposed rough stone, and gravel quarry on 12.07.2022 (Tuesday) vide Lr.No. SEAC-TN/7445, 7446 Site Inspection/2022 dated 08.07.2022.

Thiru. R. THANGAPRAKASAM, Member SEAC - TN,

Dr. P. BALAMADESWARAN, Member SEAC - TN

#### **OBSERVATIONS & RECOMMENDATIONS OF THE SUB COMMITTEE**

1. The EIA Coordinator (or) Qualified Person who have prepared the Mining Plan was not present in the site to furnish correct details of shortest distance of existing water bodies such as Rivers, Odal, Kanmoi, Tanks, Pond, streams etc in the radial distance of 1km, 500 m and 300 m from the boundary of the proposed mine lease area during the inspection.
2. In spite of the best cooperation provided by the Project Proponent, the boundary of the lease hold area and the river course & its highest flood level with reference to the quarry lease hold area were not exactly located by the sub-committee.

SEAC, after a careful examination of the proposal in the light of the remarks made by SEIAA and the observations made by the SEAC subcommittee, decided to request SEIAA to get a clarification from the district AD G&M on the above points, with particular reference to the directions of the Hon'ble Madras High Court in WP No.20903 of 2016 and the directions of the Director of Geology & Mining in his Lr No. 7240/MM6/2019, dated. 30.07.2021.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

In this regard, a letter was addressed from the O/o SEIAA-TN to the Assistant/ Deputy Director, Dept. of Geology & Mining, Virudhunagar District.

The Assistant Director, Dept. of G&M has furnished a clarification on the above vide letter dated.11.04.2023, stating that the directions of the Director, Dept.of G&M vide Lr. No. 7240/MM6/2019, dated. 30.07.2021 is not applicable to this proposal.

In view of the above, the proposal is placed again in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. On perusal of the records/ documents submitted by the project proponent in the PARIVESH Portal, it is ascertained that earlier a part of the current proposed area, i.e. S.F.No.1316/2B was granted a lease in the name of Tmt. N. Rajathi for quarrying Savudu Earth during the period 2016-2019. The EC for the same was granted vide Lr.No.SEIAA-TN/F.No.2764/EC/1(b)/1819/2014 dated.27.03.2015.

Now, the mining plan is approved for quarrying rough stone, gravel & topsoil/earth in the same area.

In this regard, the committee decided that:

- i) SEIAA may obtain clarification on the matter from the Dept. of Geology & Mining.
- ii) The EIA coordinator should furnish explanation for not disclosing the above facts.
- iii) The proponent shall furnish a report on the mineral composition of the proposed area from a laboratory authorized by the Dept. of G&M.
- iv) The proponent shall furnish the Certified Compliance Report from IRO, MoEF&CC for the EC obtained earlier dated.27.03.2015, as applicable.

On receipt of the same, further deliberations will be done.

Agenda No: 382-14

(File No: 9977/2023)

Proposed Rough Stone & Gravel quarry Lease over an extent of 1.10.0 Ha (Patta Land) at S.F.Nos. 251/3B of Karadikudi Village, Anaiicut Taluk, Vellore District, Tamilnadu by Thiru.C.Venkatesan - For Terms of Reference (STA/TN/MIN/424850/2023 dated 05.04.2023)

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

The proposal is placed for appraisal in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023. The details of the project furnished by the proponent are given in the website (partvesh.nic.in).

**SEAC noted the following:**

1. The Project Proponent, Thiru.C.Venkatesan has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry Lease over an extent of 1.10.0 Ha (Patta Land) at S.F.Nos. 251/38 of Karadikudi Village, Anaicut Taluk, Vellore District, Tamilnadu.
2. The project/activity is covered under Category "B1" of Item I(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. As per the mining plan, the lease period is for 5 years and the mining plan is for 5 years. The production for 5 years not to exceed 90,855m<sup>3</sup> of rough stone & 3990m<sup>3</sup> of gravel up to a depth of 33m (11m above ground level + 20m below ground level).

Based on the presentation made by the proponent, SEAC decided to recommend the proposal for Terms of Reference (TOR) with Public Hearing subject to the following additional TORs. In addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall spell out the mitigating measures for the protection of the Reserve Forest located nearby from the quarrying operation.
2. The project proponent shall submit a certified compliance report for the EC obtained earlier.
3. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
4. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories,


  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.

5. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc located within 1 km of the proposed quarry.
6. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
7. Since the quarry is existing with a depth of excavation varies from 6 m to 11 m without benches of appropriate dimension (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of these reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal - Dept of Mining Engg.,. The above studies shall spell out 'a 'Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit slope angle where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.
7. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
8. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.
9. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.

10. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.
  - iii. Highest production achieved in any one year
  - iv. Detail of approved depth of mining.
  - v. Actual depth of the mining achieved earlier.
  - vi. Name of the person already mined in that leases area.
  - vii. If EC and CTO already obtained, the copy of the same shall be submitted.
  - viii. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
11. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
12. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
13. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the prosed quarry based on the volume of rock handled & area of excavation.
14. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
15. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for

  
MEMBER SECRETARY  
SEAC -TN

87

  
CHAIRMAN  
SEAC-TN

carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

16. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
17. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
18. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
19. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
20. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
21. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
22. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which



attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.

23. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
24. Impact on local transport infrastructure due to the Project should be indicated.
25. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
26. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
27. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
28. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
29. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
30. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
31. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

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.

32. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
33. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
34. A Risk Assessment and Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
35. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
36. Public health Implications of the Project and related activities for the population in the Impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
37. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
38. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
39. Benefits of the Project if the Project is implemented should be spelt out. The

benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

40. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
41. The PP shall prepare the EMP for the entire life/lease of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
42. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-15**  
**(File No: 9991/2023)**

**Proposed rough stone & gravel quarry lease over an extent of 5.07.22 Ha (Patta Land) at S.F.No. 76/1A & 76/1B(P) of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamilnadu by Tvl.Sri Blue Metals – For Terms of Reference (SIA/TN/MIN/425793/2023 dated 12.04.2023)**

The proposal is placed for appraisal in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in). SEAC noted the following:

1. The Project Proponent, Tvl.Sri Blue Metals has applied for Terms of Reference for the Proposed rough stone & gravel quarry lease over an extent of 5.07.22 Ha (Patta Land) at S.F.No. 76/1A & 76/1B(P) of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamilnadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.

As per the mining plan, the lease period is for 5 years and the mining plan is for 5 years. The production for 5 years not to exceed 9.67,173m<sup>3</sup> of rough stone & 69,942m<sup>3</sup> of gravel up to a depth of 42m below ground level.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN


Based on the presentation made by the proponent, SEAC decided to recommend the proposal for Terms of Reference (TOR) with Public Hearing subject to the following additional TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent/consultant shall furnish an affidavit stating that no mining operations were carried out in the proposed project area after 2014.
2. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc located within 1 km of the proposed quarry.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
6. Since the quarry is existing with a depth of excavation varies from 6 m to 15 m without benches of appropriate dimension (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of these reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal - Dept of Mining Engg.. The above studies shall spell out 'a 'Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit slope angle where the

proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.

7. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-Induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
8. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
9. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
10. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
11. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

- h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
12. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
  13. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
  14. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the proposed quarry based on the volume of rock handled & area of excavation.
  15. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
  16. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
  17. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
  18. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air

- quality, soil quality & flora/fauna including traffic/vehicular movement study.
19. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
  20. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
  21. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
  22. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
  23. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
  24. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
  25. Impact on local transport infrastructure due to the Project should be indicated.
  26. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
  27. A detailed mine closure plan for the proposed project shall be included in

  
MEMBER SECRETARY  
SEAC -TN

95

  
CHAIRMAN  
SEAC - TN

EIA/EMP report which should be site-specific.

28. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also Incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
29. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
30. The PP shall produce/display the EIA report. Executive summary and other related information with respect to public hearing in Tamil Language also.
31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University 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.
33. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
34. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.

  
MEMBER SECRETARY  
SEAC -TN


  
CHAIRMAN  
SEAC- TN



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

  
MEMBER SECRETARY  
SEAC - TN

97

  
CHAIRMAN  
SEAC - TN

Agenda No: 382-16

(File No: 6508/2018)

Proposed mining in Kottathur Garnet Sand Deposits (G.O.(3D) No.71) over an extent of 4.80.0 Ha at S.F.Nos. 390(P) of Kottathur Village, Musiri Taluk, Trichy District, Tamilnadu by Tvl. Riverways Mines and Minerals Ltd. – For Terms of Reference

(SIA/TN/MIN/21944/2018 dated 09.02.2018)

The proposal is placed for appraisal in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

SEAC noted the following:

1. The Project Proponent, Tvl. Riverways Mines and Minerals Ltd. has applied for Terms of Reference for the Proposed Kottathur Garnet Sand Deposits (G.O.(3D) No.71) over an extent of 4.80.0 Ha at S.F.Nos. 390(P) of Kottathur Village, Musiri Taluk, Trichy District, Tamilnadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. The production for 5 years not to exceed: RoM – 14,016Ts which includes 1402Ts of Garnet (@10% recovery) & 12,614Ts of mined waste and also 14,185Ts of clay alluvium up to a depth of 2m.
4. Earlier, the proposal was placed in the 610<sup>th</sup> authority meeting held on 11.04.2023.

The Authority noted the following:

- Earlier, the subject was placed in the 347<sup>th</sup> SEIAA meeting held on 21.06.2019 and the authority has observed that the proponent has not submitted the necessary clarification for non applicability of this quarry for the order issued by Ministry of Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority as requested by the Authority in the 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. Hence the authority decided to stick with the clarification request in the 342<sup>nd</sup> SEIAA meeting that is:

The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order issued by Ministry of Mines vide F.No.1/1/2019-M,Vl dated 01.03.2019 to all

  
MEMBER SECRETARY  
SEAC - TN

98

  
CHAIRMAN  
SEAC- TN

the Principal Secretary at the Mining departments of all the state governments from the competent authority.

- Now, the proponent has submitted the reply to SEIAA vide letter dated 05.04.2023.

On the receipt of the reply received from the PP it was again placed in the 610<sup>th</sup> Authority meeting held on 11.04.2023. After detailed discussion, SEIAA decided to refer back this proposal on the PP's reply along with recommendation in addition to the following aspects.

- a) The impact of mining on geology, land area, topography, biological, marine, resources and other environmental parameters may be examined/studied.
- b) Anticipated Impact on water bodies, reservoir, river may be examined/studied.
- c) Through a detailed soil profiling, the quality & mineral Ingredients and analysis in the soil composition may be examined.

In view of the above, the proposal is placed in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023.

Based on the presentation made by the proponent, SEAC decided to recommend the proposal for Terms of Reference (TOR) with Public Hearing subject to the following additional TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
2. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
3. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.
4. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged

  
MEMBER SECRETARY  
SEAC - TN

99

  
CHAIRMAN  
SEAC - TN

from the proposed garnet mining and mineral separation.

5. The PP shall provide all documents including approved mine plan/ approved scheme of mining. EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
6. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
7. The PP shall indicate the level of Impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
8. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
9. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
10. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
11. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc, within 1 km radius around the proposed mining area from the Govt records.
12. The PP shall furnish Copy of the NoC obtained from PWD/VRD-TN for the proposed mining activity.
13. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report

through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.

14. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
15. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
16. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
17. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
18. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
19. The PP shall evaluate the Public health implications of the project and related activities for the population in the Impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
20. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
21. The PP shall disclose the details of litigation / violation case pending against the


project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.

22. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
23. Detailed study report on flora and fauna in and nearby the quarry site.
24. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
25. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
26. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
27. The PP shall furnish the water requirement for the project, its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
28. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
29. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
30. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,

- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.
  - iii. Highest production achieved in any one year
  - iv. Detail of approved depth of mining.
  - v. Actual depth of the mining achieved earlier.
  - vi. Name of the person already mined in that leases area.
  - vii. If EC and CTO already obtained, the copy of the same shall be submitted.
  - viii. Whether the mining was carried out as per the approved mine plan (or EC if issued).
31. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
32. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
33. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
34. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
35. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

  
MEMBER SECRETARY  
SEAC -TN

103

  
CHAIRMAN  
SEAC- TN

36. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the Impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
37. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
38. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
39. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
40. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
41. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
42. Description of water conservation measures proposed to be adopted in the



Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

43. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
44. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
45. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
46. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
47. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
48. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
49. The purpose of Greenbelt 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-1 in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
50. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the

  
MEMBER SECRETARY  
SEAC -TN

105

  
CHAIRMAN  
SEAC- TN

boundary of the project site with at least 3 meters wide and in between blocks in an organized manner

51. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
52. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
53. Occupational Health Impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
54. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
55. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
56. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
57. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
58. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

59. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

60. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-17**


**(File No: 6970/2019)**

**Proposed Rough stone & gravel quarry lease area over an extent of 3.79.5 Ha at S.F.No. 177/5, 177/6, 177/7 & 178/1 of Mannarkottai Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu by Thiru.E.Mariappan - For Environmental Clearance. (SI/TN/MIN/38562/2019, Dated:15.07.2019)**


The proposal is placed for appraisal in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. The details of the project furnished by the proponent are given in the website ([parivesh.nic.in](http://parivesh.nic.in)).

**The SEAC noted the following:**

1. The project proponent, Thiru.E.Mariappan has applied for Environmental Clearance for the Proposed Rough stone & gravel quarry lease area over an extent of 3.79.5 Ha at S.F.No. 177/5, 177/6, 177/7 & 178/1 of Mannarkottai Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu.
2. The project/activity is covered under category "B" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
3. Earlier, the proposal was placed in the 610<sup>th</sup> Authority meeting held on 11.04.2023. The authority noted the following:
  - a) The proposal was placed in 136<sup>th</sup> meeting of SEAC held on 20.09.2019. Based on the presentation and details furnished by the project proponent, the SEAC decided that the project proponent has to furnish the following details:
    - i) It was noted in the Google image that mining activity was already been carried out in the leased area. It is requested to furnish the following details:
      - a) What was the period of operation and stoppage of the earlier mines?
      - b) Quantity of minerals mined out

  
MEMBER SECRETARY  
SEAC -TN

107

  
CHAIRMAN  
SEAC - TN

- c) Depth of mining
- d) Name of the person already mined in the leases area
- ii) The detail of fugitive emissions should be modelled and mitigation measures shall be furnished.
- b) The proposal is then placed in 144<sup>th</sup> SEAC meeting held 17.02.2020.

On submission of the above details, SEAC decided to make an on the spot inspection to assess the present status of the project by the sub-committee constituted by the SEAC. The Sub-Committee inspected the site on 01.02.2020. The Sub-Committee held discussions with the project proponent and the committee inspected the project site and observed the following:

1. It was observed that the proposed site was an existing pit with a mined out approximately upto a depth of 25m.
2. No fencing arrangements were provided around the periphery of the mining site.
3. It was noticed that a safety distance of 50m was stipulated for the Odai located at S.F.No. 176/4 vide letter dated 23/02/2019 by Department of Geology & Mining, Virudhuangar. However, there was no safety distance left.
4. There was no green belt developed by the proponent.

Inspection report by the Sub-Committee is submitted to the Chairman, SEAC for the further course of action regarding the proposal seeking Environmental Clearance by Thiru.Mariappan. The project proponent has not complied with mandatory measures as stipulated above. Hence the sub-committee decided not to recommend the project proposal for the issuance of EC

The inspection report of the sub-committee was placed in the 144<sup>th</sup> SEAC meeting held on 17.02.2020, After detailed deliberations, the SEAC decided to defer the proposal for the next SEAC meeting.

- c) The proposal was placed before SEAC again in the 153<sup>rd</sup> SEAC meeting held on 04.06.2020. after the detail deliberation, the SEAC decided to get the following details from AD Mines, Virudunagar District.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN

During inspection of the sub-committee of SEAC. It was noticed that safety distance of 50m was stipulated for the Odai located at S.F no 176/4 vide letter dated 23/02/2019 by Department of Geology and Mining, Virudhunagar. However there was no safety distance left. Hence the SEAC has decided to impose the Environmental compensation for carried out the mining in the safety distance of 50m from Odai. In this regards the SEIAA may request the AD mines to furnish the quantity of mineral mined out from the said safety zone and value of the same.

On receipt of the above detail from AD,Mines of the Viruthunagar District, the SEAC will decide further course of action on the proposal.

- d) In this regard, Member Secretary, SEIAA vide Lr.No.SEIAA-TN/F.6970/2019 dated. 11.09.2020 has requested the Deputy Director, Dept. of G&M, Virudhunagar District to furnish the above-mentioned details as indicated in 153<sup>rd</sup> SEAC meeting. The reply from the Dept. of G&M is yet to be received.
- e) Now, the proponent has submitted a withdrawal request vide letter dated.26.10.2022, stating as follows:

*" I have submitted application for Environmental Clearance for E.Mariappan Rough Stone & Gravel Quarry over a total extent of 3.79.5 Ha in S.F.No. 177/5, 177/6, 177/7 & 178/1 Manmarkottei Village, Virudhunagar Taluk, Virudhunagar District, Tamil Nadu. Now my health is not good due to age factor, am not further going ahead on this proposal and request to withdraw my application as said in above reference.*


*I request the Member Secretary to kindly do the needful for allowing me to withdraw the above referred application for environmental clearance for our project at the earliest".*

This withdrawal request of the proponent is placed in this 610<sup>th</sup> meeting of authority held on 11.04.2023. The authority, after detailed deliberations, decided that the SEAC shall assess the ecological damage and impose Environmental compensation for the mining carried out in the safety distance of 50m from Odai.

Only after the assessment of ecological damage and completion of Environmental Compensation, the withdrawal request can be considered.

  
MEMBER SECRETARY  
SEAC -TN

109

  
CHAIRMAN  
SEAC- TN

In view of the above, the proposal is placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023.

During the meeting, the proponent was absent. Hence, the SEAC decided to defer the proposal. Further, the project proponent shall furnish the reason for his absence.

**Agenda No: 382 - 18**

**(File No: 9943/2023)**

**Proposed Rough stone Quarry over an extent of 3.00.0Ha in SF.No. 220/1 (Part-1) at Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by M/s. Natural Stone Industry - For Terms of Reference. (SIA/TN/MIN/418191/2023, Dt. 15.02.2023)**

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are given on the website ([parivesh.nic.in](http://parivesh.nic.in)).

**The SEAC noted the following:**

1. The Project Proponent, M/s.Natural Stone Industry has applied for Terms of Reference for the Proposed Rough stone Quarry over an extent of 3.00.0Ha in SF.No. 220/1 (Part-1) of Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is 10 years. The mining plan is for the period of ten years & the production should not exceed 9,04,638m<sup>3</sup> of rough stone & 75,438m<sup>3</sup> of Topsoil (Gravel) with an ultimate depth of mining is 66m (12m AGL + 54m BGL) (3m Topsoil + 63m Rough Stone). The annual peak production is 1,60,440m<sup>3</sup> of rough stone (2<sup>nd</sup> Year) & 75,438m<sup>3</sup> of Topsoil (Gravel) (1<sup>st</sup> Year).

Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent is requested to carry out a survey and enumerate on the structures located within 50m, 100m, 150m, 200m, 250m, 300m and 500m

  
MEMBER SECRETARY  
SEAC - TN

110

  
CHAIRMAN  
SEAC - TN

from the boundary of the mine lease area.

2. The PP shall restrict the depth of mining up to 50m, and shall discuss the production quantity to be mined out in the EIA report.
3. The PP shall furnish the details of the manufacturing unit shed located at a distance of 320m.
4. The proponent shall discuss the funds for mitigation measures to be included in the EMP.
5. The proponent shall adhere to the bench height - 5m as stated in the approved mining plan.
6. The proponent shall obtain Anna University Star rating system.
7. The PP shall frame Environmental policy and shall appoint Environmental Manager etc..
8. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Necessary data and documentation in this regard may be provided.
9. The proponent shall submit the details regarding the nature of blasting activity which will be carried out.
10. The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., upto a radius of 25 km from the proposed site.
11. The PP shall provide individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.
12. In the case of proposed lease in an existing (or old) quarry where the benches are non-existent (or) partially formed critical of the bench geometry approved in the Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the 'highwall' benches to ensure slope stability in the proposed quarry lease which shall be

  
MEMBER SECRETARY  
SEAC -TN

111

  
CHAIRMAN  
SEAC - TN

vetted by the concerned Asst. Director of Geology and Mining, during the time of appraisal for obtaining the EC.

6. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
7. Since the quarry lies in a cluster situation, the PP shall furnish a Standard Operating Procedure for carrying out the safe blasting operation while considering the adjacent quarries lies in a radial distance of 500 m from their quarry.
9. Details of Green belt & fencing shall be included in the EIA Report.
10. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
11. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.
  - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
12. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an



Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

13. The PP shall carry out Drone video survey covering the cluster, Green belt , fencing etc.,
14. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
15. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
16. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
17. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
18. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
19. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
20. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies,

  
MEMBER SECRETARY  
SEAC -TN

113

  
CHAIRMAN  
SEAC- TN


human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

21. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
22. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
23. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
24. Impact on local transport infrastructure due to the Project should be indicated.
25. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
26. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
27. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF & CC accordingly.
28. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
29. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

30. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
31. 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-1 in consultation with the DFO, State Agriculture University, The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
32. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
33. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
34. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
35. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
36. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

  
MEMBER SECRETARY  
SEAC -TN

115

  
CHAIRMAN  
SEAC - TN

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

**Agenda No: 382 - 19**

**(File No: 9971/2023)**

**Proposed Rough stone & Gravel Quarry over an extent of 2.31.50Ha in SF.No. 253/7, 259/5, 259/2 & 259/4 at Karadikudi Village, Anaiur Taluk, Vellore District, Tamil Nadu by Thiru.R.Natarajan - For Terms of Reference. (SIA/TN/MIN/424208/2023, Dt. 31.03.2023)**

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are given on the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, Thiru.R.Natarajan has applied for Terms of Reference for

  
MEMBER SECRETARY  
SEAC -TN


  
CHAIRMAN  
SEAC -TN

the Proposed Rough stone & Gravel Quarry over an extent of 2.31.50Ha in SF.No. 253/7, 259/5, 259/2 & 259/4 of Karadikudi Village, Analout Taluk, Vellore District, Tamil Nadu.


2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is 5 years. The mining plan is for the period of Five years & the production should not exceed 2.08,760m<sup>3</sup> of rough stone & 34,184m<sup>3</sup> of Gravel with an ultimate depth of mining 32m (17m AGL + 15m BGL) (2m Gravel + 30m Rough stone). The annual peak production is 42,600m<sup>3</sup> of rough stone (3<sup>rd</sup> Year) & 17,940m<sup>3</sup> of Gravel (2<sup>nd</sup> Year).

Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent is requested to carry out a survey and enumerate on the structures located within 50m, 100m, 150m, 200m, 250m, 300m and 500m from the boundary of the mine lease area.
2. The proponent shall discuss the funds for mitigation measures to be included in the EMP.
3. The proponent shall adhere to the bench height - 5m as stated in the approved mining plan.
4. The PP shall frame Environmental policy and shall appoint Environmental Manger etc.,
5. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Necessary data and documentation in this regard may be provided.

  
MEMBER SECRETARY  
SEAC -TN

117

  
CHAIRMAN  
SEAC- TN

6. The PP shall spell out 'a 'Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit slope angle where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.
7. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Strimulation Model indicating the anticipated Blast-Induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
8. The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., upto a radius of 25 km from the proposed site.
9. The PP shall provide Individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.
10. In the case of proposed lease in an existing (or old) quarry where the benches are non-existent (or) partially formed critical of the bench geometry approved in the Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the 'highwall' benches to ensure slope stability in the proposed quarry lease which shall be vetted by the concerned Asst. Director of Geology and Mining, during the time of appraisal for obtaining the EC.
11. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
12. Since the quarry lies in a cluster situation, the PP shall furnish a Standard Operating Procedure for carrying out the safe blasting operation while considering the adjacent quarries lies in a radial distance of 500 m from their quarry.
13. Details of Green belt & fencing shall be included in the EIA Report.

14. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
15. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
- What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - Quantity of minerals mined out.
  - Highest production achieved in any one year
  - Detail of approved depth of mining.
  - Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leases area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
16. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
17. The PP shall carry out Drone video survey covering the cluster, Green belt , fencing etc..
18. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
19. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining

  
MEMBER SECRETARY  
SEAC -TN

119

  
CHAIRMAN  
SEAC - TN

operations on the surrounding environment and the remedial measures for the same.

20. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN



- such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
  28. Impact on local transport infrastructure due to the Project should be indicated.
  29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
  30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
  31. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
  32. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
  33. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
  34. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
  35. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated. In addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

  
MEMBER SECRETARY  
SEAC -TN

121

  
CHAIRMAN  
SEAC - TN

36. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
37. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
38. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
39. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
40. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
41. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
42. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
43. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

44. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
45. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
46. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382 - 20**

**(File No. 6509/2018)**

**Proposed Garnet Sand Mine over an extent of 4.75.0 ha by M/s. S.S. Minerals Ltd. for Garnet sand production of 2450 Tonnes for a period of 5 years at S.F.No.390 (Part) in Kottathur Village, Musiri Taluk, Trichy District - Activity 1(a) - Mining of major mineral - For Terms of Reference. (SIA/TN/MIN/ 21943/2018 dated 09.02.2018)**

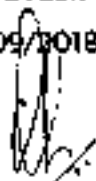
Earlier, the project proposal was placed in the 105<sup>th</sup> meeting of the SEAC held on 22.03.2018. In this regard, the SEAC learnt that the Government of Tamil Nadu has issued ban orders relating to the mining operations of Garnet, Iluminite, Rutile, etc in various parts of the state of Tamil Nadu including Tiruchirapalli vide G.O. (Ms) No.173. Industries (MMD.1) Department dated: 17.09.2013. Hence, SEAC decided that the proposal cannot be considered for appraisal.

The above minutes was communicated to the proponent vide SEIAA letter dated: 23.03.2018. The proponent requested to re-appraise the proposal vide letter dated 02.04.2018. In content of the letter the proponent has not indicated any new grounds based on which the SEAC might re-appraise the project proposal. Hence, the SEAC decided to stick to its original decision - not to consider the proposal for appraisal.

In this Connection, the SEIAA was requested to the Additional Chief Secretary to Government, Industrial Department to furnish present stage of Ban Orders on the mining of major mineral vide this office letter.No.SEIAA-TN/F.No.6509/2018 dated:

  
MEMBER SECRETARY  
SEAC - TN

123

  
CHAIRMAN  
SEAC - TN

21.05.2018. A reply was received from the Additional Chief Secretary to Government, Industrial Department vide letter No.6751/MMD.1/2018-2 dated: 20.07.2018, it is informed that the cases which are related to illegal mining of Beach sand Minerals in the state of Tamil Nadu from the existing mining lease and stoppage of mining operations, are still pending before the Hon'ble High Court of Madras. They are not connected to fresh grant of mining lease by the Government. In G.O.(Ms).No.112, Industries (MMD.1) Department dated: 22.09.2017 orders were issued for granting of mining leases to M/S. S.S. Minerals and Riverways Mines and Minerals based on the Court order dated: 15.03.2017.

The proposal was again placed in the 123<sup>rd</sup> SEAC Meeting held on 22.12.2018. The project proponent gave a detailed presentation on the salient features of the project details as follow.

The Government of Tamil Nadu sanctioned the grant of fresh mining lease for Garnet sand over an extent of 4.75.0 Ha in S.F.Nos.390 (part) of Kottathur village, Musiri Taluk, Thiruchirappalli district, Tamil Nadu vide G.O.(3D) No.57 dated 03.11.2010 to Tvl.S.S.Minerals Ltd.

Since Garnet is a major mineral and the lease area is less than 50 Ha, this project falls under category B1 as per MOEF & CC notification.

Form 1, Feasibility Report and ToR is prepared in line with the guidelines issued by MoEF&CC, vide their letter dated 30 December 2010 towards obtaining for environmental clearance for CO (3D) No.57 with lease area of 4.75.0 Ha for a peak production capacity of 2450 Tonnes of Garnet ROM for obtaining TOR from SEIAA, Tamil Nadu.

The mining plan was submitted and approved by IBM vide letter No.TN/TCR/MP/GNT1858 - MDS dated: 28.05.2013.

The applied mining lease area (G.O.(3D).57 of extent - 4.75.0 Ha) is located in Kottathur Village, Musiri Taluk, Trichy District, Tamil Nadu. The entire mine lease is Government Eri Poramboke land with an average elevation of 121m-124m from MSL. This area falls in Survey of India Toposheet No. 58 I/12 between latitude N 11°06.284' to 11°06.364' N and longitude E 78°39.862' to 78°40.059' E. The area is accessible

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC-TN

from Kottattur to Puttanampatti road which is connected to SH-142. The nearest railway station is Trichy RS located at 33 km in S.

The mining lease area and the 10 km buffer zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc. No forest land is involved in the lease area.

The area also does not come under CRZ category.

Further, there is no perennial river or streams passing through the lease area. In the buffer area, Uppar river - 1.1 km - SE, Gundar - 9.3 km - W of the lease area. The lease area is almost a flat terrain ranging with an average elevation of 121m-124m from MSL. Sattanur RF - 1.1 km - SW, Ragalayadi RF - 4.0 km - SW, Kottatur RF - 1.7 km - NE, Pulvalam RF - 7.6 km - SW, Omandur RF - 5.7 km - S, Vellakkalpat RF - 5.8 km - SE, Edurnalai RF - 7.3 km - SE, Kurichimalai RF - 4.5 km - NW, Palamalai RF - 8.7 km - N and Nakkasalem RF - 7.3 km - NE are located from the lease area.

The geological reserve is estimated has 56428 Tonnes and the mineable reserve is estimated to be 36000 Tonnes. The quantity of top soil expected is around 22568 Tonnes for the entire life of the mine. Top soil will be dumped all along the boundary barriers for afforestation purpose.

On commencement of mining activity detailed exploration will be carried out which may further enhance the mineable reserves quantity. The proposed peak production from this lease is 2450 Tonnes of garnet ROM per annum. The life of the mine is anticipated to be 15 years. However, the life of the mine may increase in case of increased reserves availability, subsequent to future exploration.

The mining is proposed to carry out by open cast method. No deep hole drilling, excavation, blasting or bore holing will be carried out. The depth of mining proposed is up to 2m. The mined Garnet ROM will be directly loaded on to trucks /tippers manually or occasionally by front end loaders for transportation to the mineral pre-concentration plant.

The mined garnet rich stream sediments will be transported to the pre-concentration plant for separation of garnet sand. The waste generated from the pre-concentration plant will be backfilled in the mined out void.

The proposed lease area is 4.75 Ha. At the end of the plan period, 0.97.50 Ha

  
MEMBER SECRETARY  
SEAC - TN

125

  
CHAIRMAN  
SEAC - TN

will be under quarry area, 0.02 Ha will be under mine roads and 3.75.50 Ha will be left undisturbed. Ultimately, after leaving the necessary 7.5m safety distance all around the mine periphery the remaining 4.07.10 Ha will be covered with quarry area. The waste from the processing plant will be back filled in the mined out pits, 0.67.90 Ha will be left unutilized.

This is a proposed project. Common site services (for all 5 leases) like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.

The total water requirement for all the ML operation in the 5 leases is 6.0cu.m including 1.0cu.m for domestic purposes, 5.0cu.m for dust suppression and afforestation. All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.

The capital cost for this project is estimated to be Rs. 13.5 lakhs which includes combined departmental mining machineries, utility, infrastructure etc.

The proponent will implement good CSR activities based on the needs of the people in the locality. As per company's act, 2% of the net profit will be spent for CSR activities every year.

Based on the presentation made by the project proponent and the documents furnished for the project of Garnet Sand deposits (GO (3D) No 57) by M/s. S.S. Minerals Ltd over an Extent of 4.75.0 Ha at S.F.No 390(P) of Kottathur village, Mudri Taluk, Trichy District, Tamil Nadu under Schedule S.No. 1(a) of Category "B" - the committee decided to defer the proposal for want of following details:

1. The proponent shall come with the presentation for conducting Cumulative EIA Study. Considering the other 4 quarries are adjacent to this quarry and other 4 Riverways Mines and Minerals which are adjacent to each other in the same survey Number of S.F.No 390(P) of Kottathur village, Musiri Taluk, Trichy District, Tamil Nadu.
2. The Executive Engineer, PWD, Tiruchirapalli in his letter.No.RC V3/Ko 35/2002 dated 15.04.2002 has recommended to grant mining lease for a period of three years and further he stated that the same may be renewed periodically once in three years. Hence, the committee has directed the

proponent to obtain a fresh No Objection Certificate and Technical feasibility for mining of Garnets in this tank area (i.e. water body) from the competent authority.

3. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void.

The proponent has furnished the details on 27.02.2019 to SEIAA.

Then, the proposal was placed in the 127<sup>th</sup> SEAC Meeting held on 15.03.2019. The project proponent gave detailed presentation on the above points. The SEAC decided to recommend that the proposal be granted standard Terms of Reference (Annexure-I) with public Hearing in additional specific following terms of reference.

1. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, Irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.
2. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
3. The detailed mine closure plan shall be furnished.
4. The proponent must conduct cumulative EIA report considering the other four adjacent proposed mining quarries with Separate EMP plan for the proposed Individual mining.
5. The transportation methodology for the transportation of Garnet from the mining lease to the process area shall be furnished in detail and cumulative impact on Air pollution especially Fugitive emission needs to be carried out considering all the mining areas.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

6. The proponent shall furnish the detailed CER plan with budget allocation incorporating the needs of the nearby public and also points raised in the public hearing as per the Office Memorandum of MoEF & CC dated 01.05.2018.

The subject was placed in 610<sup>th</sup> Authority Meeting held on 11.04.2023. After detailed discussion, the Authority noted as follows.

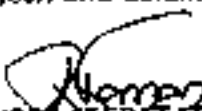
1. Earlier, the subject was placed in the 347<sup>th</sup> SEIAA meeting held on 21.06.2019 and the authority has observed that the proponent has not submitted the necessary clarification for non applicability of this quarry for the order issued by Ministry of Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority as requested by the Authority in the 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. Hence the authority decided to stick with the clarification request in the 342<sup>nd</sup> SEIAA meeting that is: The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order issued by Ministry of Mines vide F.No.1/1/2019-M.VI dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority.
2. Now, the proponent has submitted the reply to SEIAA vide letter dated 05.04.2023.

On the receipt of the reply received from the PP it was again been placed in the Authority meeting. After detailed discussion, SEIAA decided to refer back this proposal on the PP's reply along with recommendation in addition to the following aspects.

1. The impact of mining on geology, land area, topography, biological, marine, resources and other environmental parameters may be examined/studied.
2. Anticipated impact on water bodies, reservoir, river may be examined/studied.
3. Through a detailed soil profiling, the quality & mineral ingredients and analysis in the soil composition may be examined.

Now the proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023.

Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs. In addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN



1. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.
2. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
3. The detailed mine closure plan shall be furnished.
4. The proponent has to conduct cumulative EIA report considering the other four adjacent proposed mining quarries with Separate EMP plan for the proposed individual quarrying operations.
5. The transportation methodology for the transportation of Garnet from the mining lease to the process area shall be furnished in detail and cumulative impact on Air pollution especially Fugitive emission needs to be carried out considering all the mining areas.
6. The proponent shall furnish the detailed CER plan with budget allocation incorporating the needs of the nearby public and also points raised in the public hearing as per the Office Memorandum of MoEF & CC dated 01.05.2018.
7. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
8. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
9. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.
10. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral

  
MEMBER SECRETARY  
SEAC -TN

129

  
CHAIRMAN  
SEAC- TN

separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.

11. The PP shall provide all documents including approved mine plan/ approved scheme of mining, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
12. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
13. The PP shall indicate the level of impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
14. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
15. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
16. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
17. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc, within 1 km radius around the proposed mining area from the Govt records.
18. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the proposed mining activity.
19. The PP carry out the geological assessment to identify mineralization to establish

continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.

20. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
21. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc, should be for the life of the mine / lease period.
22. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
23. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
24. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
25. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
26. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
27. The PP shall disclose the details of litigation / violation case pending against the

  
MEMBER SECRETARY  
SEAC -TN

131

  
CHAIRMAN  
SEAC - TN

project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.

28. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
29. Detailed study report on flora and fauna in and nearby the quarry site.
30. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
31. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
32. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
33. The PP shall furnish the water requirement for the project, its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
34. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
35. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
36. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.

- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
- ii. Quantity of minerals mined out.
- iii. Highest production achieved in any one year
- iv. Detail of approved depth of mining.
- v. Actual depth of the mining achieved earlier.
- vi. Name of the person already mined in that leases area.
- vii. If EC and CTO already obtained, the copy of the same shall be submitted.
- viii. Whether the mining was carried out as per the approved mine plan (or EC If Issued).

37. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

38. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,

39. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

40. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.

41. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

42. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping &

  
MEMBER SECRETARY  
SEAC -TN

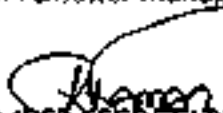
133

  
CHAIRMAN  
SEAC -TN

open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

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

49. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
50. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
51. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
52. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
53. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
54. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
55. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
56. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
57. A Disaster management Plan shall be prepared and included in the EIA/EMP Report

  
MEMBER SECRETARY  
SEAC -TN

135

  
CHAIRMAN  
SEAC - TN

- for the complete life of the proposed quarry (or) till the end of the lease period.
- 58.A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
59. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
60. Public health implications of the Project and related activities for the population in the Impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
61. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
62. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
63. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
64. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
65. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
66. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.



Agenda No: 382-21

(File No: 9930/2023)

Proposed rough stone quarry over an extent of 2.07.0 Ha at S.F.Nos. 30/1, 30/3, 30/4, 30/5, 30/6, 30/7, 30/8A, 30/9, 30/10, 30/11 and 31/2 kilukulavoipatti Village, Kulathur Taluk, Pudukkottai District, Tamil Nadu by Thiru.V. Sasikumar. For Terms of Reference (SIA/TN/MIN/422352/2023 dt 16.03.2023)

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. 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 Proponent, Thiru.V. Sasikumar has applied seeking Terms of Reference for the proposed rough stone quarry over an extent of 1.64.0 Ha at S.F.Nos. 30/1, 30/3, 30/4, 30/5, 30/6, 30/7, 30/8A, 30/9, 30/10, 30/11 and 31/2 kilukulavoipatti Village, Kulathur Taluk, Pudukkottai District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.

Based on the presentation made by the proponent, SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing subject to the following TORs in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish the certified compliance report obtained from MOEF&CC/TRO along with EIA report
2. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
3. Detailed study report on flora and fauna in and nearby the quarry site.
4. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.

  
MEMBER SECRETARY  
SEAC - TN

137

  
CHAIRMAN  
SEAC - TN

6. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
7. The project proponent shall submit approved mining plan for the next spell of mining along with the EIA/EMP report.
8. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
9. The Proponent shall submit a conceptual 'Slope Stability Assessment' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the proposed working is extended beyond 30 m below ground level.
10. The Proponent shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.
11. The Proponent shall present a conceptual design for carrying out only controlled blasting operation involving line drilling in the proposed quarry such that the blast-induced ground vibrations are controlled.
12. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
13. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.

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

  
MEMBER SECRETARY  
SEAC -TN

139

  
CHAIRMAN  
SEAC - TN

within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

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

Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

27. Impact on local transport infrastructure due to the Project should be indicated.
28. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
29. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
30. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
31. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
32. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
33. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
34. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated. In addition to improving the aesthetics, a wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
35. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The

  
MEMBER SECRETARY  
SEAC - TN

141

  
CHAIRMAN  
SEAC - TN

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

36. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
37. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
38. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
39. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
40. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
42. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
43. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the

concerned DEE/TNPCB.

44. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

45. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-22**

**(File No: 9951/2023)**

**Proposed rough stone quarry over an extent of 1.64.0 Ha at S.F.No. 253/4 Karadikudi Village, Anaicut Taluk, Vellore District, Tamil Nadu by Tmt. N. Kasthuri - For Terms of Reference (SIA/TN/MIN/423621/2023 dt 28.03.2023)**

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. 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 Proponent, Tmt. N. Kasthuri has applied seeking Terms of Reference for the proposed rough stone quarry over an extent of 1.64.0 Ha at S.F.No. 253/4 Karadikudi Village, Anaicut Taluk, Vellore District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.

Based on the presentation made by the proponent, SEAC recommended to grant of **Terms of Reference (TOR) with Public Hearing** subject to the following ToRs in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish the certified compliance report obtained from MOEF&CC/IRO along with EIA report
2. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
3. Detailed study report on flora and fauna in and nearby the quarry site.

  
MEMBER SECRETARY  
SEAC -TN

143

  
CHAIRMAN  
SEAC - TN

4. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
6. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
7. The project proponent shall submit approved mining plan for the next spell of mining along with the EIA/EMP report.
8. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after It is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
9. The Proponent shall submit a conceptual 'Slope Stability Assessment' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the proposed working is extended beyond 30 m below ground level.
10. The Proponent shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
11. The Proponent shall present a conceptual design for carrying out only controlled blasting operation involving line drilling in the proposed quarry such that the blast-induced ground vibrations are controlled.
12. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.



13. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD. mines.
- a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.
  - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
14. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
15. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
16. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
17. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
18. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be

  
MEMBER SECRETARY  
SEAC -TN

145

  
CHAIRMAN  
SEAC -TN

appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

19. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
20. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
21. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
22. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
23. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
24. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.

25. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
26. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
27. Impact on local transport Infrastructure due to the Project should be indicated.
28. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
29. A detailed mine closure plan for the proposed project shall be included In EIA/EMP report which should be site-specific.
30. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
31. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
32. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
33. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the Importance of preserving local flora and fauna by involving them in the study, wherever possible.
34. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO. & Tamil Nadu

  
MEMBER SECRETARY  
SEAC - TN

147

  
CHAIRMAN  
SEAC - TN

Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

35. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
36. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
37. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
38. Occupational Health Impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
39. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
40. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
42. Benefits of the Project if the Project is implemented should be spelt out. The

benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

43. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
44. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
45. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-23**

**(File No: 9965/2023)**

**Proposed Black granite quarry over an extent of 2.08.73 Ha at S.F.No. 2.08.73Ha S.F.Nos. 357/1(Part), 357/3B2, 357/4, 357/5A and 357/5B of Keelapullyur (S) Village, Kunnam Taluk, Perambalur District, Tamil Nadu by M/s. Siva Granite Products- For Terms of Reference (SIA/TN/MIN/423271/2023 dt 24.03.2023)**

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. 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 Proponent, M/s. Siva Granite Products has applied seeking Terms of Reference for the proposed Black granite quarry over an extent of 2.08.73 Ha at S.F.No. 2.08.73Ha S.F.Nos. 357/1(Part), 357/3B2, 357/4, 357/5A and 357/5B of Keelapullyur (S) Village, Kunnam Taluk, Perambalur District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.

Based on the presentation made by the proponent, SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing subject to the following ToRs in addition to the standard terms of reference for EIA study for non-coal mining projects

  
MEMBER SECRETARY  
SEAC -TN

149

  
CHAIRMAN  
SEAC -TN

and details issued by the MOEF & CC to be included in EIA/EMP Report:


1. The proponent shall submit the details of utilization of total quantity of granite Waste till the life of the quarry period for beneficial purpose.
2. The proponent shall submit the progressive mine closure & rehabilitation plan for the proposed granite mine.
3. The PP shall submit the Long term and short term ecological and environmental impacts due to storage, handling, and transportation of granite waste for beneficial purpose (or) otherwise.
4. The PP shall deliberate the possibility of utilizing the waste and any tailings obtained from the processing plant for the land back filling operations.
5. The PP shall provide the details on impact due to transportation of the granite waste on the access road and the equipment, and social impacts.
6. The PP shall furnish the proposal for improvement of burial ground in the vicinity of the proposed site.
7. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
8. Detailed study report on flora and fauna in and nearby the quarry site.
9. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
10. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
11. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
12. The project proponent shall submit approved mining plan for the next spell of mining along with the EIA/EMP report.
13. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the

Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.

14. The Proponent shall submit a conceptual 'Slope Stability Assessment' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the proposed working is extended beyond 30 m below ground level.
15. The Proponent shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.
16. The Proponent shall present a conceptual design for carrying out only controlled blasting operation involving line drilling in the proposed quarry such that the blast-induced ground vibrations are controlled.
17. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
18. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.
  - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.

  
MEMBER SECRETARY  
SEAC -TN

151

  
CHAIRMAN  
SEAC- TN

19. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
20. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
21. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
22. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
23. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
24. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
25. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.



26. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
27. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
28. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
29. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
30. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
31. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
32. Impact on local transport infrastructure due to the Project should be indicated.
33. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
34. A detailed mine closure plan for the proposed project shall be included in EIA/EEMP report which should be site-specific.

  
MEMBER SECRETARY  
SEAC - TN

153

  
CHAIRMAN  
SEAC - TN

35. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
36. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
37. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
38. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
39. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
40. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
41. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
42. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of

the lease period.

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

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

Agenda No. 382-24

(File No. 10007/2023)

Proposed Expansion of Existing Steel melting Plant & Rolling Mill at S.F. No. 51/1A, 51/1B, 53/1A, 53/2, 58/1, 58/2, 59/2A, 59/2B, 60, 61/2, 57/1A, 54, 55/3 Orattukkuppai Village, Madukkari Taluk, Coimbatore District, Tamil Nadu by M/s. Bradken India private limited  
- For Terms of Reference (SIA/TN/INDI/424697/2023 Dt. 06.04.2023)

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in). The SEAC noted the following

1. The Proponent M/s. Bradken India private limited has applied for Terms of Reference for the Proposed Expansion of Existing Steel melting Plant & Rolling Mill at S.F. No. 51/1A, 51/1B, 53/1A, 53/2, 58/1, 58/2, 59/2A, 59/2B, 60, 61/2, 57/1A, 54, 55/3 orattukkuppai Village, Madukkari Taluk, Coimbatore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 3(a) "Metallurgical industries (ferrous & non-ferrous)" of the Schedule to the EIA Notification, 2006.
3. The proposed project involves the capacity enhancement of production of Melting capacity from 29700 TPA to 80000 TPA, Saleable Ferrous Castings from 23166 TPA to 57600 TPA, and Composite Mill Liners from 27000 TPA to 50000 TPA.

Based on the presentation made by the proponent and the documents furnished, the SEAC decided to prescribe TOR for the preparation of Detailed EIA report along with Public Hearing. The Detailed EIA shall include standard ToR along with the following additional ToR:

1. The PP shall furnish the video graph of the entire plant operations.
2. PP shall furnish details arrangement made for permanent water supply from either Coimbatore Corporation/NTADC/TWAD Board.
3. Efficiency study/report on the existing furnace through reputed institution.
4. The PP shall discuss the best available technology, available in this field and action plan towards implement for this.
5. The PP shall furnish the road map for achieving towards 100% green energy in

  
MEMBER SECRETARY  
SEAC - TN

156

  
CHAIRMAN  
SEAC - TN

2030.

6. The PP shall furnish the action plan for 100% use of Electric Vehicles within next five years.
7. The PP shall furnish the action plan for the implementing the CER activities in the Govt Arts College as committed.
8. The PP shall study in detail various operational measures to reduce the specific energy consumption in induction furnaces.
9. The proponent shall furnish details on the idling period provided.
10. The proponent shall furnish details on measures adopted for better and efficient operation of melting & charging.
11. The proponent shall furnish details on the control measures adopted during heat finishing and tapping.
12. The proponent shall study in detail about operational control measures to Minimize and control the refractory wall wearing.
13. The proponent shall explore the possibilities of utilizing state of the art technology with best global practice.
14. The proponent shall explore the possibilities of utilizing the treated wastewater instead of fresh water.
15. The proponent must increase the Solar and Wind Energy sources and must explore the possibilities of achieving Net Zero energy consumption.
16. The proponent shall submit the copy of the consent to operate and the latest renewal consent order obtained from the TNPCB.
17. The proponent shall submit the compliance report from TNPCB for the conditions imposed in the consent order issued by the TNPCB.
18. The Environmental pollution control measures taken to deal with Air pollution, effluent generation and slag generation should be discussed in detail.
19. The project proponent has to strengthen the air pollution control measures of the existing system and furnish an adequacy report on the revamped system from a reputed Institution like Anna University or IIT, Madras along with the EIA report. The revamping of the existing air pollution control measures should include the interlinking of the position of the hood system and furnace to ensure

  
MEMBER SECRETARY  
SEAC - TN

157

  
CHAIRMAN  
SEAC - TN

that the emission from the furnace shall be treated and routed through wet scrubber and stack.

20. The proponent shall submit the video and photograph of the operational details with particular reference to points of pollution in the existing plant.
21. Material balance and Water balance shall be furnished in accordance with MoEF&CC guidelines.
22. A detailed report on Solid waste & hazardous waste management shall be furnished.
23. Report on AAQ survey and proposed air pollution prevention and control measures shall be furnished in the EIA report.
24. The project proponent shall do the stoichiometric analysis of all the involved reactions to assess the possible emission of air pollutants in addition to the criteria pollutants, from the proposed project.
25. Adequacy report for ETP & STP for the proposed project obtained from any reputed Government Institution such as IIT, Anna University, NIT shall be furnished.
26. Land use classification shall be obtained from the DTCP for the Survey Numbers of this project. Further, the project proponent shall submit the planning permission obtained from the DTCP, if any.
27. The proponent shall conduct the EIA study and submit the EIA report for the entire campus along with layout and necessary documents such as "A" register and village map.
28. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SELAA/SEAC with regard to the Office Memorandum of MoEF&CC accordingly.
29. The Public hearing advertisement shall be published in one major National daily and one most circulated Tamil daily.
30. The PP shall produce/display the EIA report, executive summary and other related information with respect to public hearing in Tamil.

31. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986. In case of the diversion of forest land for non-forest purposes involved in the project.
32. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
33. The project proponent shall explore the possibilities of treating and utilizing the trade effluent and sewage within the premises to achieve Zero liquid discharge.
34. The layout plan shall be furnished for the greenbelt area earmarked with GPS coordinates by the project proponent on the periphery of the site and the same shall be submitted for CMDA/DTCP approval. The green belt width should be at least 3m wide all along the boundaries of the project site. The green belt area should be not less than 15 % of the total land area of the project.
35. As the plant operation involves sensitive processing, the medical officer and the supporting staff involved in the health center activities shall be trained in occupational health surveillance (OHS) aspects through outsourced training from the experts available in the field of OHS for ensuring the health standard of persons employed.
36. The proposal for Roof Top solar panel shall be included in the EIA Report.
37. As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall furnish the detailed EMP.


**Agenda No. 382-25**

**(File No. 6510/2018)**

**Proposed Garnet Sand Mine over an extent of 4.90.0 Ha at S.F.No. 390(P), Kottathur Village, Musiri Taluk, Tiruchirappalli District, Tamil Nadu by M/s. Riverways Mines and Minerals Limited - For Terms of Reference. (SIA/TN/MIN/21946/2018, Dated: 09.02.2018)**

The proposal was placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. The details of the project furnished by the proponent are available in the website ([parivesh.nic.in](http://parivesh.nic.in)). The SEAC noted the following

- \* The project proposal was placed in the 105<sup>th</sup> meeting of the SEAC held on 22.03.2018. In this regard, the SEAC learnt that the Government of Tamil Nadu

  
MEMBER SECRETARY  
SEAC - TN

159

  
CHAIRMAN  
SEAC - TN

has issued ban orders relating to the mining operations of Garnet, Illuminite, Rutile, etc in various parts of the state of Tamil Nadu including Tiruchirapalli vide G.O. (Ms) No.173, Industries (MMD.1) Department dated: 17.09.2013. Hence, SEAC decided that the proposal cannot be considered for appraisal.

- The above minutes was communicated to the proponent vide SEIAA letter dated: 23.03.2018. The proponent requested to re-appraise the proposal vide letter dated 02.04.2018. In content of the letter the proponent has not indicated any new grounds based on which the SEAC might re-appraise the project proposal. Hence, the SEAC decided to stick to its original decision - not to consider the proposal for appraisal.
- In this Connection, the SEIAA was requested to the Additional Chief Secretary to Government, Industrial Department to furnish present stage of Ban Orders on the mining of major mineral vide this office letter.No.SEIAA-TN/F.No.6509/2018 dated: 21.05.2018. A reply was received from the Additional Chief Secretary to Government, Industrial Department vide letter No.6751/MMD.1/2018-2 dated: 20.07.2018, it is informed that the cases which are related to illegal mining of Beach sand Minerals in the state of Tamil Nadu from the existing mining lease and stoppage of mining operations, are still pending before the Hon'ble High Court of Madras. They are not connected to fresh grant of mining lease by the Government. In G.O.(Ms).No.112, Industries (MMD.1) Department dated: 22.09.2017 orders were issued for granting of mining leases to M/S. S.S. Minerals and Riverways Mines and Minerals based on the Court order dated: 15.03.2017.

The proposal was placed in the 123<sup>rd</sup> SEAC Meeting held on 22.12.2018. The project proponent gave a detailed presentation on the salient features of the project details as follow.

1. The Government of Tamil Nadu sanctioned the grant of fresh mining lease for Garnet sand over an extent of 4.90.0 Ha in S.F.No.390 (part) of Kottathur Village, Musiri Taluk, Trichy District, Tamil Nadu G.O.(3D) No.69 dated 27.12.2010 to Tvl. Riverways mines and minerals Ltd.
2. Since Garnet is a major mineral and the lease area is less than 100 Ha, this project falls under category B1 as per MOEF & CC notification.

  
MEMBER SECRETARY  
SEAC -TN

160

  
CHAIRMAN  
SEAC -TN



3. Form I, Feasibility Report and ToR is prepared in line with the guidelines issued by MoEF & CC, vide their letter dated 30 December 2010 towards obtaining environmental clearance for G.O.(3D) No.69 with lease area of 4.90.0 Ha for a peak production capacity of 1776 Tonnes of Garnet ROM for obtaining TOR from SEIAA, Tamil Nadu.
4. The mining plan was submitted and approved by IBM vide letter No.TN/TCR/MP/GNT1855.MDS dated: 28.05.2013.
5. The applied mining lease area (G.O.(3D).69 of extent - 4.90.0 Ha) is located in Kottathur village, Musiri taluk, Trichy District, Tamil Nadu. The entire mine lease is Government Eri Poramboke land with an average elevation of 121m-124m from MSL. This area falls in Survey of India Topo sheet No. 58 1/12 between latitude N 11°06.081' to 11°06.230' N and longitude E 78°39.832' to 78°40.953' E. The area is accessible from Kottattur to Puttanampatti road which is connected to SH-142. The nearest railway station is Trichy RS located at 33 km in S.
6. The mining lease area and the 10 km buffer zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc. No forest land is involved in the lease area.
7. The area also does not come under CRZ category.
8. Further, there is no perennial river or streams passing through the lease area. Upper river - 1.3 km - SE, Gundar Nadi - 9.5 km - W of the lease area. The lease area is almost a flat terrain ranging with an average elevation of 121m-124m from MSL. Sattanur RF - 800 m - SW, Ragalavadi RF - 3.9 km - SW, Kottatur RF - 2.4 km - NE, Pulivalam RF - 7.3 km - SW, Omandur RF - 4.2 km - S, Vellakkalpat RF - 5.5 km - SE, Edumalai RF - 7.4 km - SE, Kurichi malai RF - 4.9 km - NW, Palamalai RF - 9.0 km - N and Nakkasalem RF - 7.8 km - NE are located from the lease area.
9. The geological reserve is estimated has 40078 Tonnes and the mineable reserve is estimated to be 20736 Tonnes. The quantity of top soil expected is around 12050 Tonnes for the entire life of the mine. Top soil will be dumped all along the boundary barriers for afforestation purpose.

  
MEMBER SECRETARY  
SEAC - TN

161

  
CHAIRMAN  
SEAC - TN

10. The proposed peak production from this lease is 1776 Tonnes of garnet ROM per annum.

11. Based on the presentation made by the project proponent and the documents furnished for the project of Garnet Sand deposits (CO (3D) No 69) by M/s. TvL.Riverways Mines and Minerals Ltd over an Extent of 4.90.0 Ha at S.F.No 390(P) of Kottathur village, Musiri Taluk, Trichy District, Tamil Nadu under Schedule S.No. 1(a) of Category "B" – the committee decided to defer the proposal for want of following details:

- The proponent shall come with the presentation for conducting Cumulative EIA Study. Considering the other 4 quarries are adjacent to this quarry namely, M/S. S.S. Minerals & other 3 Riverways Mines and Minerals which are adjacent to each other in the same survey Number of S.F.No 390(P) of Kottathur village, Musiri Taluk, Trichy District, Tamil Nadu.
- The Executive Engineer, PWD, Tiruchirapalli in his letter.No.RC V3/Ko 35/ 2002 dated 15.04.2002 has recommended to grant mining lease for a period of three years and further he stated that the same may be renewed periodically once in three years . Hence, the committee has directed the proponent to obtain a fresh No Objection Certificate and Technical feasibility for mining of Garnets in this tank area (i.e. water body) from the competent authority.
- The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre-concentrated plant since the said waste proposed to dump into the mined out void.

The proponent has furnished the details on 27.02.2019 to SEIAA.

The proposal was placed in the 127<sup>th</sup> SEAC Meeting held on 15.03.2019. The project proponent gave detailed presentation on the above points. The SEAC decided to recommend that the proposal be granted standard Terms of Reference (Annexure-I) with the combined Public hearing.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN

The proposal was considered in 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. The SEIAA decided to seek following clarification from the proponent:

1. The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order Issued by Ministry of Mines dated 01.03.2019 to all the Principle Secretary at the Mining departments of all the state governments from the competent authority.
2. The proponent shall clarify the formation of the garnet in the water bodies.

The above details were communicated to the project proponent vide letter dated 26.04.2019 and proponent furnished reply on 29.05.2019.

Again this subject was placed in the 347<sup>th</sup> SEIAA meeting held on 21.06.2019. The authority has observed that the proponent has not submitted the necessary clarification for non applicability of this quarry for the order issued by Ministry of Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority as requested by the Authority in the 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. Hence the authority decided to stick with the clarification request in the 342<sup>nd</sup> SEIAA meeting i.e. The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order issued by Ministry of Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority.

Now, the proponent has submitted the reply to SEIAA vide letter dated 05.04.2023.

The subject was placed in 610<sup>th</sup> Authority meeting held on 11.04.2023. After detailed discussion, SEIAA decided to refer back this proposal on the PP's reply along with recommendation in addition to the following aspects.

1. The impact of mining on geology, land area, topography, biological, marine, resources and other environmental parameters may be examined/studied.
2. Anticipated impact on water bodies, reservoir, river may be examined/studied
3. Through a detailed soil profiling, the quality & mineral ingredients and analysis in the soil composition may be examined.

Now, this proposal again been placed in this 382<sup>nd</sup> meeting of SEAC held on 09.06.2023. Based on the presentation made by the proponent, SEAC recommended to grant of **Terms of Reference (TOR) with Public Hearing** subject to the following ToRs in

  
MEMBER SECRETARY  
SEAC -TN

163

  
CHAIRMAN  
SEAC - TN

addition to the standard Terms of Reference for EIA study for non-coal mining projects and details Issued by the MOEF & CC to be included in EIA/EMP Report:

1. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.
2. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
3. The detailed mine closure plan shall be furnished.
4. The proponent has to conduct cumulative EIA report considering the other four adjacent proposed mining quarries with Separate EMP plan for the proposed individual quarrying operations.
5. The transportation methodology for the transportation of Garnet from the mining lease to the process area shall be furnished in detail and cumulative impact on Air pollution especially Fugitive emission needs to be carried out considering all the mining areas.
6. The proponent shall furnish the detailed CER plan with budget allocation incorporating the needs of the nearby public and also points raised in the public hearing as per the Office Memorandum of MoEF & CC dated 01.05.2018.
7. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
8. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
9. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.

10. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.
11. The PP shall provide all documents including approved mine plan/ approved scheme of mining, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
12. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
13. The PP shall indicate the level of Impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the Incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
14. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
15. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
16. The PP shall submit a report on replenishment of Garnet sand (or) Its geological formation as indicated in the DSR.
17. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc, within 1 km radius around the proposed mining area from the Govt records.
18. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the

  
MEMBER SECRETARY  
SEAC -TN

165

  
CHAIRMAN  
SEAC -TN

proposed mining activity.

19. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.
20. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
21. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
22. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
23. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
24. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
25. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

26. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
27. The PP shall disclose the details of litigation / violation case pending against the project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.
28. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
29. Detailed study report on flora and fauna in and nearby the quarry site.
30. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
31. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
32. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
33. The PP shall furnish the water requirement for the project, its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
34. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
35. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere

  
MEMBER SECRETARY  
SEAC -TN

167

  
CHAIRMAN  
SEAC - TN

in the State with video and photographic evidences.

36. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,

- i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
- ii. Quantity of minerals mined out.
- iii. Highest production achieved in any one year
- iv. Detail of approved depth of mining.
- v. Actual depth of the mining achieved earlier.
- vi. Name of the person already mined in that leases area.
- vii. If EC and CTO already obtained, the copy of the same shall be submitted.
- viii. Whether the mining was carried out as per the approved mine plan (or EC, if issued).

37. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

38. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc..

39. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

40. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.

41. The Project Proponent shall provide the Organization chart indicating the



appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

42. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
43. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
44. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
45. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
46. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
47. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and

  
MEMBER SECRETARY  
SEAC - TN

169

  
CHAIRMAN  
SEAC - TN

where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.

48. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
49. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
50. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
51. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF & CC accordingly.
52. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
53. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
54. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
55. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

56. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
57. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
58. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
59. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
60. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
61. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
62. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
63. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
64. If any quarrying operations were carried out in the proposed quarrying site for

  
MEMBER SECRETARY  
SEAC, TN

171

  
CHAIRMAN  
SEAC, TN

which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

65. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
66. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Agenda No. 382 – 26.

File No. 9924/2023.

Proposed Rough Stone and Gravel Quarry lease over an extent of 1.05.5Ha S.F.No.251/3A, Karadikudi Village, Anaicut Taluk, Vellore District by Thiru.R.Natarajan - For Terms of Reference. (SIA/TN/MIN/422143/2023, dt: 16.03.2023)

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. 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 proponent, Thiru.R.Natarajan has applied for Terms of Reference for the Rough Stone and Gravel Quarry lease over an extent of 1.05.5Ha S.F.No.251/3A, Karadikudi Village, Anaicut Taluk, Vellore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per the precise area communication the lease period is for 5 years. The mining plan is for 5 years. The production for 5 years shall not to exceed 74260m<sup>3</sup> of Rough Stone & 7752m<sup>3</sup> of Gravel and the ultimate depth of 42m (22m AGL & 20m BGL).

Based on the presentation and details furnished by the project proponent, SEAC after considering safety aspects and sustainable mining, decided to grant Terms of Reference (TOR) with Public Hearing for restricted depth upto 37m (except VIII Bench of XY - AB Section of BGL) subject to the following TORs. In addition to the standard terms of

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit copy EC obtained and certified compliance report for the existing pit depth 17m.
  2. The PP shall submit photographs of fencing, greenbelt and garland drain.
  3. AD mines letter for the existing pit with details of earlier lease period and pit dimension.
  4. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
  5. The study on impact of the dust & other environmental impacts due to proposed quarrying operations on the Rose flowers being cultivated through greenhouse nearby.
  6. The Proponent shall furnish photographs of greenbelt, fencing and garland drain around the boundary of the proposed quarry.
  7. The proponent shall furnish a revised EMP budget for entire life of proposed mining.
  8. The revised and corrected version of the Production & Development Plan shall be produced with showing the safety berm width of 2m is maintained for the bench height of 2m distinctly in the gravel formation and it shall be duly signed by the concerned QP & approved by the concerned AD (Geology & Mining).
- Since the quarry is existing with a depth of excavation varies from 6 m to 19 m without benches of appropriate dimension (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of these reputed Research and Academic Institutions - CSIR - Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal - Dept of Mining Engg.. The above studies shall spell out 'a Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit

  
MEMBER SECRETARY  
SEAC -TN


173

  
CHAIRMAN  
SEAC -TN

slope angle where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.

9. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
10. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.
11. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
12. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
13. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.

- h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
14. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
  15. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
  16. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the proposed quarry based on the volume of rock handled & area of excavation.
  17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
  18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
  19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
  20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may

  
MEMBER SECRETARY  
SEAC -TN

175

  
CHAIRMAN  
SEAC -TN

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



29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
31. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
32. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
33. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
34. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
35. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University 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.
36. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC/TN

boundary of the project site with at least 3 meters wide and in between blocks in an organized manner

37. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
38. A Risk Assessment and Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
39. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
40. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
41. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
42. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
43. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
44. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

45. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

46. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No. 382 – 27.**

**File No. 9938/2023.**

**Proposed Rough Stone Quarry lease over an extent of 0.98.0Ha S.F.No.118/4, 118/5, 118/6A & 119/3, Sevvur Village, Thiruppattur Taluk, Sivagangai District by Thiru.C.Ammavasai - For Terms of Reference. (SIA/TN/MIN/422613/2023, dt:18/03/2023)**

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are available in the website ([parivesh.nic.in](http://parivesh.nic.in)).

The SEAC noted the following:

1. The project proponent, Thiru.C.Ammavasai has applied for Terms of Reference for the proposed Rough Stone Quarry lease over an extent of 0.98.0Ha S.F.No.118/4, 118/5, 118/6A & 119/3, Sevvur Village, Thiruppattur Taluk, Sivagangai District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item I(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per the precise area communication the lease period is 10 Years. The mining plan is for 10 Years. The production for the 1<sup>st</sup> five Years shall not to exceed 25225m<sup>3</sup> of Rough Stone & 5837m<sup>3</sup> of Gravel and the ultimate depth of 16m BGL.

Based on the presentation and details furnished by the project proponent, SEAC decided to grant Terms of Reference (TOR) with Public Hearing subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit photographs of fencing, greenbelt and garland drain.

  
MEMBER SECRETARY  
SEAC -TN

179

  
CHAIRMAN  
SEAC - TN

2. AD mines letter for the existing pit with details of earlier lease period and pit dimension.
3. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
4. The study on impact of the dust & other environmental impacts due to proposed quarrying operations on the Rose flowers being cultivated through greenhouse nearby.
5. The Proponent shall furnish photographs of greenbelt, fencing and garland drain around the boundary of the proposed quarry.
6. The proponent shall furnish a revised EMP budget for entire life of proposed mining.
7. The revised and corrected version of the Production & Development Plan shall be produced with showing the safety berm width of 2m is maintained for the bench height of 2m distinctly in the gravel formation and It shall be duly signed by the concerned QP & approved by the concerned AD (Geology & Mining).
8. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease during the time of appraisal for obtaining the EC.
9. The Proponent shall submit a conceptual 'Slope Stability Plan' indicating the mitigating measures for the proposed quarry during the appraisal while obtaining the EC, as the depth of the proposed quarry working is extended beyond 30 m below ground level.
10. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/1 Class mines manager appointed by the proponent.

  
 MEMBER SECRETARY  
 SEAC - TN

  
 CHAIRMAN  
 SEAC- TN

11. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
12. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
13. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.
  - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
14. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
15. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
16. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the prosed quarry based on the volume of rock handled & area of excavation.
17. The proponent shall furnish photographs of adequate fencing, green belt along

the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
22. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.

24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
28. Impact on local transport infrastructure due to the Project should be indicated.
29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
31. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
32. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
33. The PP shall produce/display the EIA report, Executive summary and other

  
MEMBER SECRETARY  
SEAC -TN

183

  
CHAIRMAN  
SEAC - TN

- related information with respect to public hearing in Tamil Language also.
34. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
35. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-i in consultation with the DFO, State Agriculture University 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.
36. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
37. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
38. A Risk Assessment and Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
39. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
40. Public health implications of the Project and related activities for the population



in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

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

**Agenda No. 382 – 2B.**


**File No. 9945/2023.**

**Proposed Rough Stone Quarry lease over an extent of 3.00.0Ha S.F.No.220/1 (Part-3), Gopanapalli Village, Hosur Taluk, Krishnagiri District by M/s. Srre Krish Rough Stone - For Terms of Reference. (SIA/TN/MIN/418435/2023, dt:15/02/2023)**

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are available in the website ([parhvesh.nic.in](http://parhvesh.nic.in)).

  
MEMBER SECRETARY  
SEAC -TN

185

  
CHAIRMAN  
SEAC - TN

The SEAC noted the following:

1. The project proponent, M/s. Srre Krish has applied for Terms of Reference for the Rough Stone Quarry lease over an extent of 3.00.0Ha S.F.No.220/1 (Part-3), Gopanapaill Village, Hosur Taluk, Krishnagiri District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per the precise area communication the lease period is for 10 Years. The mining plan is for 10 Years. The production for 1<sup>st</sup> Five Years shall not to exceed 512190 m<sup>3</sup> of Rough Stone & 68760 m<sup>3</sup> of Topsoil and the ultimate depth of 38m (10m AGL & 28m BGL).

Based on the presentation and details furnished by the project proponent, SEAC decided to grant Terms of Reference (TOR) with Public Hearing subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MDEF & CC to be included in EIA/EMP Report:

1. The PP shall submit photographs of fencing, greenbelt and garland drain.
2. The PP shall submit revised mining plan approval from Dept. of Geology & Mining in regard to the bench height of 5m each instead of 7m proposed bench height.
3. AD mines letter for the existing pit with details of earlier lease period and pit dimension.
4. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
5. The study on impact of the dust & other environmental impacts due to proposed quarrying operations on the Rose flowers being cultivated through greenhouse nearby.
6. The Proponent shall furnish photographs of greenbelt, fencing and garland drain around the boundary of the proposed quarry.
7. The proponent shall furnish a revised EMP budget for entire life of proposed mining.

8. The revised and corrected version of the Production & Development Plan shall be produced with showing the safety berm width of 2m is maintained for the bench height of 2m distinctly in the gravel formation and it shall be duly signed by the concerned QP & approved by the concerned AD (Geology & Mining).
9. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease during the time of appraisal for obtaining the EC.
  - Since the quarry is existing with a depth of excavation varies from 6 m to 19 m without benches of appropriate dimension (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of these reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal - Dept of Mining Engg.,. The above studies shall spell out a 'Slope Stability Action Plan' for the proposed quarry covering the existing condition of the quarry wall including the overall pit slope angle where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.
10. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-Induced Ground Vibration levels in the proposed quarry as stipulated by the DGM's Circular No.7 of 1997, during the EIA Proposal.
11. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, I/I Class mines manager appointed by the proponent.

  
MEMBER SECRETARY  
SEAC - TN

167

  
CHAIRMAN  
SEAC - TN


12. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
13. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
14. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.
  - g. If EC and CTO already obtained, the copy of the same shall be submitted.
  - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
15. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
16. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
17. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the prosed quarry based on the volume of rock handled & area of excavation.
18. The proponent shall furnish photographs of adequate fencing, green belt along

the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

19. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
20. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
21. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
22. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
23. The Proponent shall carry out the Cumulative Impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
24. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.

  
MEMBER SECRETARY  
SEAC - TN

189

  
CHAIRMAN  
SEAC - TN

25. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
26. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
27. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
28. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
29. Impact on local transport infrastructure due to the Project should be indicated.
30. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
31. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
32. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
33. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
34. The PP shall produce/display the EIA report, Executive summary and other

related information with respect to public hearing in Tamil Language also.

35. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
36. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated. In addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University 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.
37. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
38. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
39. A Risk Assessment and Management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
40. Occupational Health Impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
41. Public health implications of the Project and related activities for the population

  
MEMBER SECRETARY  
SEAC -TN

191

  
CHAIRMAN  
SEAC -TN

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

Agenda No. 382 – 29.

File No. 9987/2023.

Proposed Rough Stone & Gravel Quarry lease over an extent of 1.71.0Ha S.F.No.182/3, 182/4 & 182/8, Sembatur Village, Pudukkottai Taluk, Pudukkottai District by Thiru.C.S.Arjankumar - For Environmental Clearance. (SIA/TN/MIN/425995/2023, dt:17/04/2023)

The proposal was placed in the 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are available in the website ([parivesh.nic.in](http://parivesh.nic.in)).

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN



The SEAC noted the following:

1. Now, the Project Proponent Thiru.C.S.Arjunkumar has applied for Environmental Clearance for the proposed Rough Stone & Gravel Quarry lease over an extent of 1.71.0Ha S.F.No.182/3, 182/4 & 182/8, Sembatur Village, Pudukkottai Taluk, Pudukkottai District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. The precise area communication/lease is issued for the period of 10 Years. The approved mining plan is for the period of five Years & the production shall not exceed 181570m<sup>3</sup> of Rough Stone & 16742m<sup>3</sup> of Gravel and the annual peak production shall not exceed 42830m<sup>3</sup> of Rough Stone (5<sup>th</sup> Year) & 9296 m<sup>3</sup> of Gravel (2<sup>nd</sup> Year). The depth of mining upto 22m BGL.

Sl. No	Salient Features of the Proposal	
1.	Name of the Owner/Firm	: Thiru.C.S.Arjunkumar
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	: Rough stone and gravel quarry
3.	S.F Nos. of the quarry site with area break-up	: 182/3,4,5
4.	Village in which situated	: Sembatur
5.	Taluk in which situated	: Pudukkottai
6.	District in which situated	: Pudukkottai
7.	Extent of quarry (in ha.)	: 1.71.0 Ha
8.	Latitude & Longitude of all corners of the quarry site	: 10°29'25.80"N to 10°29'32.19"N 78°51'06.78"E to 78°51'11.31"E
9.	Topo Sheet No.	: 58-J/15
10.	Type of mining	: Opencast Semi Mechanized Mining
11.	Life of Project	: 10 Years

  
MEMBER SECRETARY  
SEAC -TN

193

  
CHAIRMAN  
SEAC -TN

	Lease Period	:	10 Years	
	Mining Plan Period	:	5 Years	
	Mining Plan Details	:	As per approved Mining Plan	
12.	Geological Resources m <sup>3</sup> (RoM)	:	Rough Stone in m <sup>3</sup>	Gravel in m <sup>3</sup>
			1110915	23364
	Mineable Resources m <sup>3</sup> (RoM)	:	Rough Stone	Gravel
			181570	16742
	Annual Peak Production in m <sup>3</sup>	:	Rough Stone	Gravel
42830			9296	
	Maximum Depth in meters	:	22m BGL	
13.	Depth of water table	:	70m to 75m	
14.	Man Power requirement per day:	:	26 Nos.	
15.	Water requirement:	:	2.2 kLD	
	1. Drinking water	:	1.2 kLD	
	2. Utilized water	:	0.5 kLD	
	3. Dust suppression	:	0.5 kLD	
	4. Green belt	:		
16.	Power requirement	:		
17.	Precise area communication approved by the Department of G&M.	:	RC.No. 533/2022 (G&M) Dt:03.03.2023	
18.	Mining Plan approved by Department of G&M.	:	RC.No. 533/2022 (G&M) Dt:23.03.2023	
19.	Department of G&M, Deputy Director:500m Cluster Letter	:	RC.No. 533/2022 (G&M) Dt:23.03.2023	

  
 MEMBER SECRETARY  
 SEAC -TN

  
 CHAIRMAN  
 SEAC-TN


20.	VAO Certificate Regarding Structures within 300m Radius		Dt:29.03.2023		
21.	Project Cost (excluding EMP cost)	:	Rs.39.18 Lakhs		
22.	EC Recommendation	:	1st Five Years as per approved mining plan		
				Rough Stone	Gravel
			Max Total RoM in m <sup>3</sup>	181570	16742
			Annual Max RoM in m <sup>3</sup>	42830	9296
		:	Max Depth in mtrs	22m BGL	
23.	EMP cost (in Rs. Lakh).	:	Rs. 190 Lakhs		
24.	CER cost (in Rs. Lakh).	:	Rs. 5 Lakhs		

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the quantity of 181570m<sup>3</sup> of Rough Stone & 16742m<sup>3</sup> of Gravel and the annual peak production shall not exceed 42830m<sup>3</sup> of Rough Stone & 9296 m<sup>3</sup> of Gravel by restricting the ultimate depth of mining upto 22m BGL and for the period five Years subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- 1) 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

  
MEMBER SECRETARY  
SEAC - TN

195

  
CHAIRMAN  
SEAC - TN

a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O. 1807(E) dated 12.04.2022.

- 2) The PP shall inform send the 'Notice of Opening' of the quarry to the Director of Mines Safety, Chennai Region before obtaining the CTO from the TNPCB.
- 3) 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.
- 4) The proponent shall appoint the statutory competent persons relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961, as amended from time to time.
- 5) The PP shall construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
- 6) Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.
- 7) The proponent shall 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.
- 8) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
- 9) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.


  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC-TN

- 10) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
- 11) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
- 12) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required. In coordination with the concerned Govt. Authority.
- 13) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
- 14) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
- 15) 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.
- 16) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 17) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the

  
MEMBER SECRETARY  
SEAC - TN

197

  
CHAIRMAN  
SEAC- TN

boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.

- 18) **Noise and Vibration Related:** (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 19) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 50 to 60 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
- 20) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 21) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 22) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 23) As the ultimate depth in this case exceeded 40m, the PP shall carry out the scientific studies to assess the slope stability of the benches and quarry wall when the depth of the quarry touches 30 m (or) after the completion of 3 years of operation whichever is earlier, by involving any of the reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg. Surathkal, and Anna

University Chennai-CEG Campus, etc. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

- 24)The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR, 1961 and it shall not be carried out by the persons other than the above statutory personnel.
- 25)The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan& the approved Mine Closure Plan.
- 26)Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
- 27)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.
- 28)The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
- 29)The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
- 30) To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.

  
MEMBER SECRETARY  
SEAC -TN

199

  
CHAIRMAN  
SEAC -TN

- 31) The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
- 32) The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
- 33) The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed 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.
- 34) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
- 35) 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.
- 36) 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.
- 37) As per the directions contained in the OM F.No.22-34/2018-IA, III dated 16th January 2020 issued by MoEFCC, the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for



growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.

38) 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.

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

40) As accepted by the Project Proponent the CER cost of Rs.5 lakhs and the amount shall be spent for the Panchayat Union Middle School, Rajakulathur, Pudukkottai Union, Pudukkottai District before obtaining CTO from TNPCB.

Agenda No. 382 – 30.

(File No. 6511/2018)

Proposed Garnet Sand Mining over an extent of 4.75.0 ha at S.F.No. 390 (Part) in Kottathur Village, Musiri Taluk, Trichy District by M/s. Riverways Mines and Minerals Ltd for Garnet sand production of 2500 Tonnes for a period of 5 years - Terms of Reference . (SI/TN/MIN/21942/2018, dt:09.02.2018)

Earlier, the proposal was placed in 103<sup>rd</sup>, 106<sup>th</sup>, 123<sup>rd</sup>, & latest in the 127<sup>th</sup> SEAC meeting held on 15.03.2019. The details of the project furnished by the proponent & minutes of SEAC are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent M/s. Riverways Mines and Minerals Ltd has applied seeking Terms of Reference for the proposed Garnet Sand Mining over an extent of 4.75.0 ha at S.F.No. 390 (Part) in Kottathur Village, Musiri Taluk, Trichy District, Tamil Nadu.
2. The proposed quarry/activity of Major Mineral (Garnet Sand Mining) over an extent of 4.75.0 ha with cluster area 23.95.5 ha is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. MoEF&CC Notification vide S.O. 1886 (E) Dt: 20.04.2022. Major Mineral upto

  
MEMBER SECRETARY  
SEAC - TN

201

  
CHAIRMAN  
SEAC- TN

250 ha to be treated as "B" Category project.

4. The precise area communication was issued vide G.O.3D No.70 dated 29.12.2010.
5. The approved mining plan was issued vide TN/TCR/MP/GNT/1857-MDS dt: 28.05.2013 for mining 29700 Tonnes of ROM ( Garnet recovery (10%) - 2970 Tonnes. Mining Waste (90%) - 26730 Tonnes) & Clay Alluvium-18096 Tonnes and depth of mining upto 2m and anticipated life of mine is morethan 12 Years as reported.
6. For the 1<sup>st</sup> Five Years of Mining, 9900 Tonnes of ROM ( Garnet recovery (10%) - 990 Tonnes. Mining Waste (90%) - 8910 Tonnes) & Clay Alluvium-10192 Tonnes & depth of mining 2m.
7. The mining Lease was issued on 06.04.2018 valid upto 05.04.2038.
8. Gol. Ministry of Mines, Order F.No.1/1/2019 -M.VI Dt: 01.03.2019.
9. Show cause notice issued by Industries Dept. vide Lr. No. 13113/MMD.1/2019, Industries Department, dated 08.11.2019.
10. Gol. Ministry of Mines, Order F.No.1/1/2019 -M.VI Dt: 20.12.2022 ( Order Dt: 01.03.2019 not applicable to 11 mines in Trichirapalli District and 2 Mines in Madurai District)
11. G.O.(3D) No.08 dated 02.03.2023, withdrawl of show cause notice issued vide Lr. No. 13113/MMD.1/2019, Industries Department, dated 08.11.2019.
12. PWD NOC vide Lr. dt:18.02.2019.

\*\*\*\*\*

Earlier, the proposal was placed in 103<sup>rd</sup>, 106<sup>th</sup>, 123<sup>rd</sup>, & to the latest this proposal was placed in the 127<sup>th</sup> SEAC Meeting held on 15.03.2019 and the SEAC decided to recommend that the proposal be granted standard Terms of Reference (Annexure-I) with the combined Public hearing shall be conducted with other three adjacent proposed mining quarries namely M/s. Riverways Mines and Minerals Ltd and in additional specific following terms of reference.

1. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00%

  
MEMBER SECRETARY  
SEAC -TN

202

  
CHAIRMAN  
SEAC- TN

monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.

2. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
3. The detailed mine closure plan shall be furnished.
4. The proponent has to conduct cumulative EIA report considering the other four adjacent proposed mining quarries with Separate EMP plan for the proposed individual mining.
5. The transportation methodology for the transportation of Garnet from the mining lease to the process area shall be furnished in detail and cumulative impact on Air pollution especially Fugitive emission needs to be carried out considering all the mining areas.
6. The proponent shall furnish the detailed CER plan with budget allocation incorporating the needs of the nearby public and also points raised in the public hearing as per the Office Memorandum of MoEF & CC dated 01.05.2018.

Subsequently, the proposal was placed in 342<sup>nd</sup> held on 03.04.2019 and the SEIAA decided to seek following clarification from the proponent:

1. The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order issued by Ministry of Mines dated 01.03.2019 to all the Principle Secretary at the Mining departments of all the state governments from the competent authority.
2. The proponent shall clarify the formation of the garnet in the water bodies.

In this connection, the proposal was again placed in 347<sup>th</sup> held on 21.06.2019 and the authority has observed that the proponent has not submitted the necessary clarification for non applicability of this quarry for the order issued by Ministry of

  
MEMBER SECRETARY  
SEAC - TN

203

  
CHAIRMAN  
SEAC - TN

Mines dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority as requested by the Authority in the 342<sup>nd</sup> SEIAA meeting held on 03.04.2019. Hence the authority decided to stick with the clarification request in the 342<sup>nd</sup> SEIAA meeting that is:

The proponent shall obtain necessary clarification for non applicability of this quarry for the letter on the order issued by Ministry of Mines vide F.No.1/2019-M.VI dated 01.03.2019 to all the Principal Secretary at the Mining departments of all the state governments from the competent authority.

The proponent has submitted the reply to SEIAA vide their letter dated 05.04.2023. In this regard, the subject was placed in 610<sup>th</sup> Authority meeting held on 11.04.2023. After detailed discussion, SEIAA decided to refer back this proposal on the PP's reply along with recommendation in addition to the following aspects.

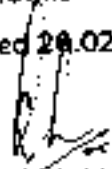
4. The impact of mining on geology, land area, topography, biological, marine, resources and other environmental parameters may be examined/studied.
5. Anticipated impact on water bodies, reservoir, river may be examined/studied.
6. Through a detailed soil profiling, the quality & mineral ingredients and analysis in the soil composition may be examined.

In view of the above, the proposal was again placed in 382<sup>nd</sup> held on 09.06.2023. The SEAC noted the proposal was recommended in 127<sup>th</sup> SEAC Meeting held on 15.03.2019. Based on the documents submitted and the presentation by the PP. After detailed discussion, the SEAC decided to recommend that the proposal for grant of Terms of Reference with the combined Public hearing shall be conducted with other four adjacent proposed garnet sand mining quarries subject to the following TORs, in addition to the standard terms of reference for EIA study with separate EMP plan and details issued by the MOEF & CC to be included in EIA/EMP Report.

1. The analysis of the minerals of Garnet to be mined out from the mining lease area shall be carried out by the competent authority before conducting EIA study and the proponent shall ensure that the threshold value 0.00% monazite in heavy minerals, irrespective of monazite grade as per the Atomic minerals concession rules 2016 issued by ministry of mines notification dated 20.02.2019.

  
MEMBER SECRETARY  
SEAC - TN

204

  
CHAIRMAN  
SEAC- TN

2. The proponent shall furnish the scientific proof to ensure the non hazardous nature of the waste generated from the mineral pre- concentrated plant since the said waste proposed to dump into the mined out void. In this connection proponent has to detailed plan bring back the non hazardous nature of the waste generated from the mineral pre- concentrated plant to the mined out area.
3. The detailed mine closure plan shall be furnished.
4. The proponent has to conduct cumulative EIA report considering the other four adjacent proposed mining quarries with Separate EMP plan for the proposed individual quarrying operations.
5. The transportation methodology for the transportation of Garnet from the mining lease to the process area shall be furnished in detail and cumulative impact on Air pollution especially Fugitive emission needs to be carried out considering all the mining areas.
6. The proponent shall furnish the detailed CER plan with budget allocation incorporating the needs of the nearby public and also points raised in the public hearing as per the Office Memorandum of MoEF & CC dated 01.05.2018.
7. The PP shall furnish a copy of the document in support of the fact that the proponent is the rightful lessee of the mine.
8. The PP shall furnish Copy of approved Mining Plan /Scheme of mining plan by the competent authority during the time of EIA appraisal.
9. The PP shall furnish an affidavit that mining plan approved by AMD used for Public Hearing and the Mining Plan approved by the Competent Authority (IBM/DGM) are the same.
10. The PP shall evaluate the environmental aspects and their possible associated impacts that would arise due to the proposed Garnet sand mining and mineral separation and to work out environmental monitoring programme to prevent, control, minimise or eliminate the adverse environmental impacts envisaged from the proposed garnet mining and mineral separation.
11. The PP shall provide all documents including approved mine plan/ approved scheme of mining, EIA and public hearing should be compatible with one

  
MEMBER SECRETARY  
SEAC - TN

205

  
CHAIRMAN  
SEAC - TN

- another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
12. The PP shall provide all corner coordinates of the mine lease area superimposed on a high Resolution Imagery/ toposheet. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and the buffer zone).
  13. The PP shall indicate the level of impact on local transport infrastructure due to project. Projected increase in truck traffic as a result of project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as state government) should be covered.
  14. The PP shall furnish a letter from VAO stating details of structures & habitations located within 300m from the boundary of the project site.
  15. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
  16. The PP shall submit a report on replenishment of Garnet sand (or) its geological formation as indicated in the DSR.
  17. The PP shall furnish the details of the tank, depth of desiltation, extent of the tank and Ownership of the tanks, details of cultivation, distance from the site, etc. within 1 km radius around the proposed mining area from the Govt records.
  18. The PP shall furnish Copy of the NoC obtained from PWD/WRD-TN for the proposed mining activity.
  19. The PP carry out the geological assessment to identify mineralization, to establish continuity, quality and quantity of mineral deposit, particularly, the presence of Atomic minerals in the Garnet sand. Hence the PP shall furnish the report through the systematic sampling in the proposed site with showing geological coordinates as per the procedures laid in accordance with the provisions of Atomic Minerals Concessional Rules, 2016 and the mineralogical analysis

obtained from the laboratory of IREL (India) Limited, Research Centre, Beach Road, Kollam, Kerala.

20. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside/inside the mine lease, such as extent of land area, distance from mine lease. Its land use, R&R Issues, if any, should be provided.
21. The study area will comprise of 10km zone around the mine lease from lease periphery and the data contained in EIA such as waste generation etc. should be for the life of the mine / lease period.
22. The PP shall indicate the land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
23. The PP shall indicate the details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
24. The PP shall anticipate the Occupational and health impacts of the project and accordingly the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
25. The PP shall evaluate the Public health implications of the project and related activities for the population in the impact zone systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
26. The PP shall provide the measures of socio-economic significance and influence to the local community. As far as possible, quantitative dimensions may be given with the time frames for implementation.
27. The PP shall disclose the details of litigation / violation case pending against the project (or) the PP pertaining to this mining proposal, if any, with the direction/order passed by any court of law against the project proposal in the past or now.

  
MEMBER SECRETARY  
SEAC -TN

207

  
CHAIRMAN  
SEAC -TN

28. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
29. Detailed study report on flora and fauna in and nearby the quarry site.
30. The Proponent shall develop greenbelt and garland drain around the boundary of the proposed quarry and the photographs indicating the same shall be shown during the EIA appraisal.
31. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report
32. The PP shall carry out the air-quality monitoring for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of minerals. The details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
33. The PP shall furnish the water requirement for the project, its availability and source. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
34. The PP shall assess the impact of project on water quality, both surface and groundwater and necessary safeguard measures, if any required, should be provided.
35. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
36. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines.
  - i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - ii. Quantity of minerals mined out.



- iii. Highest production achieved in any one year
- iv. Detail of approved depth of mining.
- v. Actual depth of the mining achieved earlier.
- vi. Name of the person already mined in that leases area.
- vii. If EC and CTO already obtained, the copy of the same shall be submitted.
- viii. Whether the mining was carried out as per the approved mine plan (or EC if issued).

37. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

38. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,

39. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.

40. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.

41. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

42. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc.

  
MEMBER SECRETARY  
SEAC - TN

209

  
CHAIRMAN  
SEAC - TN

within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

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

etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.

50. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
51. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
52. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
53. The Proponent shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
54. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
55. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
56. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
57. A Disaster management Plan shall be prepared and included in the EIA/EMP

  
MEMBER SECRETARY  
SEAC -TN

211

  
CHAIRMAN  
SEAC - TN

Report for the complete life of the proposed quarry (or) till the end of the lease period.

58. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.

59. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spell out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

60. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

61. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

62. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

63. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

64. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

65. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

66. Concealing any factual information or submission of false/fabricated data and

failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**Agenda No: 382-31**  
**(File No: 6389/2017)**

**Existing Limestone Mine lease area over an extent of 4.99.5Ha at S.F.Nos.382/1A, 382/1B, 382/1C, 382/1D, 382/5A, 383/1A, 383/1B, 383/1C, 383/2A, 383/2B, 383/2C, 383/3A, 383/3B & 384/1D (P) of Nakkambadi Village, Sendurai Taluk, Ariyalur District, Tamil Nadu by M/s. Chettinad Cement Corporation Pvt. Limited - For Terms of Reference under violation category. (SIA/TN/MIN/25056/2018 dated: 07.04.2017).**

The proposal is placed in this 382<sup>nd</sup> SEAC Meeting held on 09.06.2023. The details of the project furnished by the proponent are given in the website ([parivesh.nic.in](http://parivesh.nic.in)).

The SEAC noted the following:

1. The project proponent, M/s. Chettinad Cement Corporation Pvt. Limited, has applied for Terms of Reference under violation category for the Existing Limestone Mine lease area over an extent of 4.99.5Ha at S.F.Nos.382/1A, 382/1B, 382/1C, 382/1D, 382/5A, 383/1A, 383/1B, 383/1C, 383/2A, 383/2B, 383/2C, 383/3A, 383/3B, 384/1D (P) of Nakkambadi Village, Sendurai Taluk, Ariyalur District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B" - "Under Violation" of Item I(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, the proposal was placed in the 341<sup>st</sup> SEAC meeting held on 29.12.2022. During the meeting, the Committee noted that the project proponent is absent during the meeting. Hence the subject was not taken up for discussion. Further, the Project Proponent vide Lr. CCCPL /KRP-SEN/EC-02 D1:28.12.2022 has informed that they have decided not to pursue further the process of obtaining EC since they have decided to surrender the mining lease to IBM and has submitted Final Mine Closure Plan in order to close the mine properly. The last permit was issued on 22.12.2016. In view of these, the proponent has requested SEIAA to dispose of their application seeking EC.

  
MEMBER SECRETARY  
SEAC - TN

213

  
CHAIRMAN  
SEAC - TN

In view of the above, SEAC decided that the PP shall furnish documentary evidences in the forthcoming SEAC meeting so as to consider their request for withdrawal of said proposal seeking EC under 'Non-violation' category.

4. Subsequently, the proposal was placed in the 586<sup>th</sup> Authority meeting held on 27.01.2023. The Authority, after detailed discussions decided to request Member Secretary, SEIAA to communicate the minutes of 341<sup>st</sup> SEAC to the project proponent. The proponent shall submit the details sought by SEAC within 1 month from the date of this meeting.


Now, the proposal is placed again in this 382<sup>nd</sup> SEAC meeting held on 09.06.2023. The Committee noted that the proposal falls under violation category since the proponent has carried out quarrying operations without obtaining EC. Quarrying operations were stopped in the site only on 02.01.2017. Hence, SEAC decided to recommend the proposal for Terms of Reference under violation category.

During the meeting the PP committed & requested that "they are not going to operate the mine and hence requested for Public hearing exemption".

Hence, after detailed deliberations, SEAC decided to recommend the proposal for grant of Terms of Reference (ToR) under Violation category without Public Hearing, for the assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants.

1. The PP shall furnish an Independent Chapter 13 as per the MoEF & CC Violation Notification – S.O. 804 (E), dated. 14.03.2017 prepared by the accredited consultants comprising of assessment of ecological damage for the project activities carried out earlier without obtaining prior Environmental Clearance, and the remediation plan and natural & community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of Environmental Clearance.
2. As a part of procedural formalities as per the MoEF & CC Violation Notification – S.O. 804 (E), dated. 14.03.2017, the action will be initiated by the competent authority under section 15 read with section 19 of the Environment (Protection) Act, 1986 against violation.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN

3. Copy of total penalty levied by the concerned AD/DD, Dept of Geology and Mining, and copy of remittance of total penalty by PP.
4. The PP shall furnish an affidavit stating that the intended application seeking ToR is only as part of statutory obligation to enable mine closure and that no mining activity will be carried out by the PP.
5. The project proponent shall submit approved final mine closure plan along with the EIA/EMP report.
6. The PP shall furnish a letter from DFO on the proximity details of nearest any other Wild Life sanctuaries & Protected areas with respect to the proposed project site.
7. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
  - i. Quantity of minerals mined out.
  - ii. Highest production achieved In any one year
  - iii. Detail of approved depth of mining.
  - iv. Actual depth of the mining achieved earlier.
  - v. Name of the person already mined in that leases area.
  - vi. If EC and CTO already obtained, the copy of the same shall be submitted.
  - vii. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
9. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
10. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.

  
MEMBER SECRETARY  
SEAC -TN

215

  
CHAIRMAN  
SEAC- TN


11. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, past & present working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
12. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons appointed during the violation period as per the provisions of Mines Act 1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
13. The Project Proponent shall conduct the hydro-geological study involving any of these scientific institutions - IIT-Madras, NIT Trichy, Anna University-CEG Campus, Chennai and University of Madras - Centre for Environmental Sciences, Guindy Campus considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
14. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
15. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts during the past and present. Accordingly, the Environment Management plan shall be prepared for including it into the mine closure activities keeping the concerned quarry and the surrounding habitations in the mind.
16. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.



17. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
18. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
19. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
20. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
21. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
22. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
23. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated. In addition to improving the aesthetics. A wide range of Indigenous plant species should be planted as given in the **appendix-i** in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
24. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent

  
MEMBER SECRETARY  
SEAC -TN

217

  
CHAIRMAN  
SEAC- TN

- 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
25. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  26. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  27. Occupational Health Impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
  28. Public health Implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
  29. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
  30. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  31. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
  32. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
  33. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Agenda No: 382-TA-01

(File No: 7465/2020)

Proposed expansion of existing foundry unit production capacity from 2790 TPM to 6125 TPM located at S.F. No. 39A and 39B, Kathikavakkam Village, Tiruvotthiyur Taluk, Tiruvallur District by M/s.Ashok Leyland Limited, Tiruvallur District – For Extension of validity of Terms of Reference with Public Hearing (SIA/TN/IND/ 300520/2023, Dated. 23.05.2023)

This proposal was placed in the 3682<sup>nd</sup> meeting of SEAC meeting held on 09.06.2023. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in). The Project Proponent gave a detailed presentation.

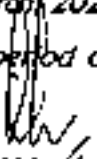
The SEAC noted the following:

1. The Proponent, M/s.Ashok Leyland Limited, has applied seeking extension of validity of ToR for the proposed expansion of existing foundry unit production capacity from 2790 TPM to 6125 TPM located at S.F. No. 39A and 39B, Kathikavakkam Village, Tiruvotthiyur Taluk, Tiruvallur District.
2. The project/activity is covered under Category "B1" of Item 3 (a) Metallurgical Industries of the Schedule to the EIA Notification, 2006, as amended.
3. ToR with Public Hearing issued vide Lr. No. SEIAA-TN/F.No.7465/3(a)/TOR-726/2020 Dated: 23.06.2020.
4. As per MoEF&CC O.M Dt:29.08.2017, the validity of ToR shall be 4 years for all the projects/activities and 5years for River Valley and HEP Projects, i.e upto 22.06.2024
5. Now the proponent has applied online through PARIVESH web portal vide Proposal No. SIA/TN/IND/ 300520/2023, Dated. 23.05.2023 for the extension of validity of ToR with all required documents.
6. The proponent had cited the reasons of the outbreak of the Coronavirus (covid-19) and subsequent lockdowns which had put the studies initiated as a part of EIA on hold and they were unable to proceed further to submit the final EIA report in time.

As per MoEF&CC Notification S.O. 221(E), dated the 18<sup>th</sup> January, 2021, it states that *".....the period from the 1<sup>st</sup> April, 2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of*

  
MEMBER SECRETARY  
SEAC -TN

219

  
CHAIRMAN  
SEAC- TN

*validity of Terms of Reference granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the Terms of Reference granted shall be treated as valid....".*

Hence, the SEAC after detailed discussions decided to confirm that the **ToR with Public Hearing** issued is valid up to 22.06.2025 as per the aforesaid MoEF Notification dated 18.01.2021. Hence, the project proponent is requested to complete the prescribed processes and submit all the required documents within that period.

  
MEMBER SECRETARY  
SEAC - TN

  
CHAIRMAN  
SEAC - TN

## 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, overburden, interburden 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.

  
MEMBER SECRETARY  
SEAC - TN

221

  
CHAIRMAN  
SEAC - TN

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.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC- TN

13. **Noise and Vibration Related:** (i) The Proponent shall carry out only the Controlled Blasting operation using NONEL shock tube initiation system during daytime. Usage of other initiation systems such as detonating cord/fuse, safety fuse, ordinary detonators, cord relays, should be avoided in the blasting operation. The mitigation measures for control of ground vibrations and to arrest fly rocks should be implemented meticulously under the supervision of statutory competent persons possessing the I / II Class Mines Manager / Foreman / Blaster certificate issued by the DGMS under MMR 1961, appointed in the quarry. No secondary blasting of boulders shall be carried out in any occasions and only the Rock Breakers (or) other suitable non-explosive techniques shall be adopted if such secondary breakage is required. The Project Proponent shall provide required number of the security sentries for guarding the danger zone of 500 m radius from the site of blasting to ensure that no human/animal is present within this danger zone and also no person is allowed to enter into (or) stay in the danger zone during the blasting. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
14. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
15. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
16. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
17. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take

  
MEMBER SECRETARY  
SEAC -TN

223

  
CHAIRMAN  
SEAC - TN

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

18. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
19. After mining operations are completed, the mine closure activities as indicated in the mine closure plan shall be strictly carried out by the Proponent fulfilling the necessary actions as assured in the Environmental Management Plan.
20. The Project proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition that is fit for the growth of fodder, flora, fauna etc.
21. The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
22. The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
23. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
24. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN



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.

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

**Appendix -I**  
**List of Native Trees Suggested for Planting**

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Apple maruolus</i>	Vilvam	விவம்
2	<i>Adenanthera pavonina</i>	Manjadi	மஞ்சள் மணிகொம்பம்
3	<i>Albizia lebbek</i>	Vangai	வங்கை
4	<i>Albizia amara</i>	Usil	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தரை
6	<i>Bauhinia racemosa</i>	Aathu	ஆது
7	<i>Bauhinia tomentosa</i>	Iravathi	இரவத்தி
8	<i>Buchanania stollaria</i>	Kattuma	கட்டமா
9	<i>Borassus flabellifer</i>	Pani	பனி
10	<i>Butea monoperma</i>	Murukkamaram	முருக்கமரம்
11	<i>Butea orbis</i>	Ilavu, Servilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Panni	பன்னி
13	<i>Cassia fistula</i>	Serakondrai	செரகண்டரை
14	<i>Cassia roxburghii</i>	Sergondrai	செர்கண்டரை
15	<i>Chloroxylon swietenia</i>	Puramaram	புரம் மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjilavu	கொங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Narvelli	நர்வெலி
18	<i>Crotola miconia</i>	Mavelingam	மாவலிங்கம்
19	<i>Dillenia indica</i>	Uva, Uza	உவா
20	<i>Dillenia pentagyna</i>	StruUva, Sitruzha	சுருவா
21	<i>Diospyro sebottum</i>	Karungali	கரங்கலி
22	<i>Diospyro schloroxylon</i>	Vagani	வாணி
23	<i>Ficus amplissima</i>	Kallchi	கல்லை
24	<i>Hibiscus tiliacron</i>	Aarupoovarasu	ஆரூபூவரசு
25	<i>Hemipicton binata</i>	Acha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aavib	ஆவிப் பூ
27	<i>Laurus coromandlica</i>	Oduam	ஒடும்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மரம்
29	<i>Lepisanthus tetraophylla</i>	Neikottamaram	நெிகொட்டம் மரம்
30	<i>Limonia acidissima</i>	Vila maram	வில்லா மரம்
31	<i>Litsea glutinosa</i>	Painpattai	பைன்பட்டை
32	<i>Madhaca longifolia</i>	Iluppa	இலுப்பா
33	<i>Manihara hexandra</i>	UkkaiPaatu	உக்கை பாது
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழ்மரம்
35	<i>Mitragyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nutu	நுது
37	<i>Morinda citrifolia</i>	Vellai Nutu	வெலை நுது
38	<i>Phoenix sylvestris</i>	Eechai	ஏச்சை
39	<i>Pongamia pinnat</i>	Pungani	புங்கை



**APPENDIX -III**

**Specific ToR: DATA TO BE COLLECTED FOR VIOLATION PROJECTS - MINING**

**1) Air Environment**

**a) Mine Development**

Criteria Pollutants	Unit		Maximum value		Maximum Value		98 percentile value		Prescribed standard
	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	Mg/m <sup>3</sup>
PM10									
PM2.5									
SO2									
NOx									

**b) Mine Operation (Production Period)**

Criteria Pollutants	Unit		Maximum value		Maximum Value		98 percentile value		Prescribed standard
	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	gm/sec	Mg/m <sup>3</sup>	Mg/m <sup>3</sup>
PM10									
PM2.5									
SO2									
NOx									

**2. Details of Ground / Surface Water**

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC - TN

2015-11-17

Criteria of Pollutants as per standards	Pre-construction	Post Construction	Post Operation	Remarks
PH				
DO				
BOD				
COD				
TDS				
TSS				
Heavy Metals				
Chlorides				
Flourides				
Other				

**Water Consumption:**

	Construction	Operation	Remarks(NOC / No NOC)
STP Water / Other In KLD			
Ground Water /Borewell in KLD			
Surface Water as per GEC 2015 in KLD			

  
 MEMBER SECRETARY  
 SEAC -TN

  
 CHAIRMAN  
 SEAC-TN

Fresh Water (Domestic)			
No. of RWH pits required			
No. of RWH Pits less provided			
GW Intersection (level)			

3) Noise:

Location:	Parameter	Maximum	Minimum	Threshold Value	Remarks
Industrial	Leq Day				
	Leq Night				
Residential	Leq Day				
	Leq Night				

4) Ecology / BioDiversity / LU/LC

a) LULC Impact in Ha:

Comparison pre/post construction / operation


Less Agriland -

Less Grazing Land -

Less Forest Land -

b) GB: No. Of trees to be planted

No. Of Trees less planted -

  
MEMBER SECRETARY  
SEAC -TN

  
CHAIRMAN  
SEAC -TN

Plantation Required -

No. Of Trees less planted -

Mining: Along Boundary, dumps, safety zones, rivers/ nalahs.

c) Soil:

Top Soil: \_\_ Qty(M<sup>3</sup>)

Qty les used: \_\_\_\_ (M<sup>3</sup>)

d) WLC plan

- Approved/ Not approved.

- Details / Budget of Approved

5) a) OB / Waste Management

Details as per Form '2'

Parameters	Units	Required	Provided	Less Provided
Garland Drain	Mtrs			
Toe Drains	Mtrs			
Toe Walls	Nos.			
Check Dams	Nos.			
Settling Tanks/ Ponds	Sq. M			
Plantation	Sq. mtr			

6). Energy saving measures:

a) Requirement of ECBC of colony within project area.


b) Other Energy saving measures

7). RH/ OHS/ Disaster Management/ SMP:

a) Requirement - Industry Specific

  
MEMBER SECRETARY  
SEAC - TN

231

  
CHAIRMAN  
SEAC - TN

b) Deficiency – details / compliance plan

8). Socio Economic Benefits (CSR)

31.03. __ (Year ended)	Rs. (in Lakhs)
31.03. __ (Year ended)	Rs. (in Lakhs)
31.03. __ (Year ended)	Rs. (in Lakhs)
31.03. __ (Year ended)	Rs. (in Lakhs)

9). Economic Benefits Accrual:

- a). Saving in EMP Cost / years under violation.
- b). Net profit earned – Years under violation.

10) The period between the day of violation observed/due date of direction's compliance and the date of verification by CPCB/SPCB/PCC is considered as number of days violation took place.

11) Notice of violation & Penalty levied if any from the office of concerned District Collector / Directorate of Geology & Mining.

\*\*\*\*\*

  
 MEMBER SECRETARY  
 SEAC - TN

  
 CHAIRMAN  
 SEAC- TN