State Expert Appraisal Committee (SEAC)

Minutes of 377th meeting of the State Expert Appraisal Committee (SEAC) held on 10.05.2023(Wednesday) at SEIAA Conference Hall, 2nd Floor, Panagal Maligai, Saidapet, Chennai 600 015 for consideration of Building Construction Projects & Mining Projects

Agenda No: 377 – 01.
(File No. 9889/2023)
Proposed rough stone and gravel quarry lease over an Extent of 1.34.0 Ha at S.F.No. 478/2 (Part) of Vadasithur Village, Kinathukkadavu Taluk, Coimbatore District, Tamilnadu by Mr.P.Gopalakrishnan - for Environmental Clearance (SIA/TN/MIN/421175/2023 Dated: 07.03.2023).

The proposal was placed in the 377th SEAC meeting held on 10.05.2023. 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, Mr. P. Gopalakrishnan has applied for the Environmental Clearance for the Proposed rough stone and gravel quarry lease over an Extent of 1.34.0 Ha at S.F.No. 478/2 (Part) of Vadasithur Village, Kinathukkadavu Taluk, Coimbatore District, Tamilnadu.
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. From the documents submitted by the project proponent, it is ascertained that the PP had given consent to Mr. Ramprakash who have carried out the quarrying operation without obtaining any legal permissions including the prior Environmental Clearance in the land for 3 years and it is the same area now being applied to obtain the EC.
4. As per Sub-Section 1 of Section 4 of the MMDR Act, no person shall undertake any reconnaissance, prospecting or mining operation in any area except under in accordance with the terms and conditions of reconnaissance permit or of a prospecting licence or as the case may be of a mining lease, granted under the Act and the Rules made thereunder. Sub-section 2 of Section 4 of the MMDR Act, reads as under:

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"2. No reconnaissance permit, prospecting licence or mining lease, shall be granted otherwise than in accordance with the provisions of this Act and the rules made thereunder." http://www.judis.nic.in W/P(MD) No.20903 of 2016, etc., batch

45.Any violation of Section 4 of the Act is an offence, as per Section 21 of the Act. Any reconnaissance permit, prospecting licence or mining lease, if granted in contravention of the MMDR Act, is deemed to be void as per Section 19 of the Act.

5 Hence the Section 21(5) of the MMDR Act, 1957 empowers recovery of the price of the unauthorizedly quarried mineral if it had been disposed of. The Hon'ble Apex Court in Common Cause mandates that this provision should be invoked accordingly wherever such unauthorized quarrying operation is carried out.

6 Further, the Hon'ble Supreme Court, by order dated 02.08.2017, in the matter of Common Cause Vs. Union of India and others had also held that if there is violation of any of the statutory requirements, then, the mining operation was illegal and unlawful.

7 Consequently, the Dept. of Geology & Mining, Coimbatore District has imposed a penalty of Rs.8,76,000/- towards Mr. P. Gopalakrishnan earlier for the aforementioned illicit mining operations.

8. Already, it was stated in many litigation cases that the Hon'ble Supreme Court had directed that 100% compensation must be recovered from the defaulting lessee. Now the SEAC observes that the PP had mined and transported Rough stone/Gravel from the lease area without obtaining Environment Clearance. It was stated that the demand in the impugned notice was based on the order of the Hon'ble Supreme Court of India and It is, under these circumstances, taking up the responsibility to compensate the sufferers and also to provide the cost of reversing the damage, the Hon'ble Supreme Court again reiterated the principle "polluter pays principle".

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SEAC -TN

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SEAC- TN

9. Besides, the Sec.15 read with the Sec.19 of Environmental Protection Act, 1986 against such violation stating that

"...Violators to pay for the violation period which shall be proportionate to scale of the project and extent of commercial transaction....."

10. Therefore, the proponent has participated in quarrying operations earlier without obtaining prior Environmental Clearance as mandated and has violated the provisions of the EIA Notification, 2006, as amended.

Therefore, in view of the above & based on the presentation and documents furnished by the project proponent, SEAC decided to grant of **Terms of Reference (TOR) under Violation category without Public Hearing**, 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. However, the **Terms of Reference issued are subject to final orders of the Hon'ble High Court of Madras in the matter of W.P.(MD) No. 11757 of 2021.**

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 in accordance **with the CPCB Guidelines** 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.
4. Copy of total penalty levied by the concerned AD/DD, Dept of Geology and Mining, and copy of remittance of total penalty by PP.

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5. The PP shall submit the 'No Objection Certificate' from the competent authority for the proposed quarry area where the illicit mining has been carried out.
6. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.
7. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
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 Plan' for the proposed quarry during the appraisal and submission of Damage Assessment.
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.

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SEAC -TN

CHAIRMAN
SEAC- TN

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

17. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons

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SEAC- TN

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. 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.

23. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.

24. 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

on the importance of preserving local flora and fauna by involving them in the study, wherever possible.

25. 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.

26. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner

27. 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.

28. 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.

29. 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.

30. 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.

31. 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.
32. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
33. 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.
34. 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.
35. 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.
36. 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: 377-02
(File No: 9772/2023)
Proposed Rough Stone & Gravel quarry Lease over an extent of 2.10.5 Ha at S.F.No. 16/6, 16/7, 16/9 & 16/10 in Thollamur Village, Vanur Taluk, Villupuram District, Tamil Nadu by Mr.G.Arjunan – For Terms of Reference (SIA/TN/MIN/415873/2023 dated 28.01.2023)

The proposal is placed for appraisal in this 377th SEAC meeting held on 10.05.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

SEAC noted the following:

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SEAC- TN

1. The Project Proponent, **Mr.G.Arjunan** has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry Lease over an extent of 2.10.5 Ha at S.F.No. 16/6, 16/7, 16/9 & 16/10 in Thollamur Village, Vanur Taluk, Villupuram 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. 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 **2,83,695m³ of rough stone & 1,1,4,764m³ of gravel.**

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. Since the land belongs to Tmt. Nandhini & earlier EC was accorded in the name of Tmt. Nandhini for quarrying in the same area vide Lr. No.SEIAA-TN/F.No.4000/EC/1(a)/2546/2015 dated: 21.12.2015, the project proponent shall submit a certified compliance report for the EC obtained on 21.12.2015.
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 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 with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc

are located within 1 km of the proposed quarry.

5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
6. **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 carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal – Dept of Mining Engg, and Anna University Chennai-CEG Campus, Chennai. The above studies shall spell out the 'Action Plan' for carrying out the realignment of the benches and quarrying operations in a safe & sustainable manner in the proposed quarry lease.**
7. 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.
8. 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.
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,
    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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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.

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 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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 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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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: 377-03
(File No: 9779/2023)
Proposed Rough Stone & Gravel quarry Lease over an extent of 2.48.0 Ha at S.F.No. 226/1, 226/2, 226/4, 226/5, 227/2 & 227/3 in Thiruchunai Village, Melur Taluk, Madurai District, Tamil Nadu by Mr.M.Kumaran – For Terms of Reference (SIA/TN/MIN/416430/2023 dated 31.01.2023)

The proposal is placed for appraisal in this 377th SEAC meeting held on 10.05.2023. 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, **Mr.M.Kumaran** has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry Lease over an extent of 2.48.0 Ha at S.F.No. 226/1, 226/2, 226/4, 226/5, 227/2 & 227/3 in Thiruchunai Village, Melur Taluk, Madurai 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. As per the mining plan, the lease period is for 10 years and the mining plan is for 10 years. The production for 10 years not to exceed **1,93,136m³ of rough stone & 25,724m³ of gravel.**

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 shall obtain the land classification changed from 'Nanjai' to 'Punjai' for the proposed area from the competent authority while submitting EIA Report.**
2. The proponent shall furnish photographs of adequate fencing, green belt along

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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 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 with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
6. **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 carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal – Dept of Mining Engg, and Anna University Chennai-CEG Campus, Chennai. As the proposed quarry involves the extraction of stone blocks manually, the above studies shall spell out the 'Action Plan' for carrying out the quarrying operations in a safe & sustainable manner.**
7. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is not carried out and the handbreaking operations are only involved as indicated in the Approved Mining Plan.
8. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.

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,
    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.
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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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 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.

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SEAC -TN

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SEAC- TN

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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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: 377- 04
File.No.9902/2023
(SIA/TN/INFRA2/420670/2023 Dated: 04.03.2023)

Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The Environmental Clearance is sought for Construction of Residential cum Commercial Development Project at T.S. No.: 19, Old S.No. 212, 213/2 Velachery Main Road, Velachery Village, Velachery Taluk, Chennai District, Tamilnadu by the PP M/s Sobha Limited.
2. M/s. Eco Services India Private Limited is the EIA Consultant for the project.
3. Total plot area of the project is 10,036m^2 and built-up area is 30,395m^2 respectively.
4. Maximum number of floors will be B + G + 20 Floors and maximum height of the building will be 68 m.
5. Total Saleable DU's (dwelling units) is 83.
6. Salient features of the project as submitted by the project proponent:

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SEAC- TN

PROJECT SUMMARY			
Sl. No.	Description	Total Quantity	Unit
GENERAL			
1.	Plot Area	10,036	SQMT
2.	Proposed Built Up Area	30,395	SQMT
3.	Total no of Saleable DU's/Villas	83	No.
4.	Max Height - (Height of tallest block)	70	M
5.	No of Building Blocks (Residential + Community facilities)	3 (Apartment Block, Commercial Block & Club House)	
6.	Max No of Floors	20 Floors	No.
7.	Expected Population (Residential Population – 538 Nos., Club House - 54 Nos., Commercial Block – 20 Nos., Maintenance Staff & Visitors – 31 Nos.)	643	No.
8.	Total Cost of Project	144.82	Crores
9.	Project Activity :	Residential cum Commercial Development	
AREAS			
10.	Permissible Ground Coverage Area (50%)	5,018	SQMT
11.	Proposed Ground Coverage Area (16 %)	1,606	SQMT
12.	Permissible FSI Area (2.0)	20,072	SQMT
13.	Proposed FSI Area (1.99)	19,980	SQMT
14.	Other Non FSI Areas - including basement area etc.	10,415	SQMT
15.	Proposed Total Built Up Area	30,395	SQMT

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CHAIRMAN
SEAC- TN

WATER			
16.	Total Water Requirement	84	KLD
17.	Fresh water requirement	52	KLD
18.	Treated Water Requirement	32	KLD
19.	Wastewater Generation	77	KLD
20.	Proposed Capacity of STP	90	KLD
21.	Treated Water Available for Reuse	73	KLD
22.	Treated Water Recycled	32	KLD
23.	Surplus treated water to be discharged in Municipal Sewer with Prior Permission, if any	41	KLD
RAINWATER HARVESTING			
24.	Rainwater Harvesting - Recharge Pits	5	No.
25.	Rainwater Harvesting Sump Capacity	180	M3
PARKING			
26.	Total Parking Required as / Building Bye Laws	200 Nos. of Car Parking and 40 Nos. of Two Wheeler Parking	
27.	Proposed Total Parking	212 Nos. of Car Parking and 42 Nos. of Two Wheeler Parking	
28.	Parking in Basements	187 Nos. of Car Parking and 26 Nos. of Two Wheeler Parking	
GREEN AREA			
29.	Proposed Green Area (Minimum 15.0% of plot area)	1806	SQMT
	Total area	10,036	
	Existing trees on plot	10	
	Number of trees to be planted	125	
	Number of trees to be transplanted/cut	0	
SOLID WASTE MANAGEMENT			

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

30.	Total Solid Waste Generation	0.362	TPD
31.	Organic waste	0.213	TPD
32.	Mode of Treatment & Disposal	Treated in Organic Waste Convertor and Used as manure for gardening	
33.	Quantity of Sludge Generated from STP & Disposal	8	KG/DAY
34.	Quantity of E-Waste Generation & Disposal	0.6	TPA
35.	Quantity of Hazardous waste Generation & Disposal	-	LPD
	POWER / GREEN POWER		
36.	Total Power Requirement	1157	KW
37.	DG set backup	400	KVA
38.	No of DG Sets	2	No.
39.	Solar Panels – Roof Coverage	50	%
40.	Hot Water Requirement Of which met by Solar Panels	Solar Geyser will cater the Hot Water requirement for Top Two Floors	

POPULATION			
Residential	DU'S	POP/DU	TOTAL POPULATION
Total Saleable Du's	43	6	258
	40	7	280
Total Residential	83	-	538
Non Residential			
Club House	10% of Fixed Residential Population		54
Commercial	Based on Floor Space		20
Facility Management Staff & Visitors	5% of Fixed Residential Population		31
Total Population			643 Nos.

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SEAC -TN

CHAIRMAN
SEAC- TN

7. The project proposal falls under Category–8(a) of EIA Notification, 2006 (as amended).

Based on the presentation made by the proponent and the documents furnished, the SEAC decided to obtain the following details from the PP.

1. The PP shall furnish the revised green belt area as discussed during the meeting accordingly furnish the revised water balance & land breakup area.
2. The PP shall furnish the revised solar panel layout to covering 50% of the roof top.
3. The PP shall furnish the copy of AAI NOC
4. The PP shall furnish the details of green rating norms for this project, such as IGBC.
5. The PP shall furnish the details for development of Pond in the OSR area.
6. The PP shall furnish the revised CER proposal as committed during the meeting

On the receipt of the same further deliberation will be done.

Agenda No: 377- 05
(File No: 9527/2022)
Proposed Expansion of Construction of Groyne (repairing and strengthening of the existing groynes at Periyanayagi street) at Kovalam, Periyanaki street, Agastheeswaram Taluk, Kanyakumari District, Tamil Nadu by M/S. Executive Engineer WRD - for Terms of Reference.(SIA/TN/INFRA2/401163/2022, Dated: 23.09.2022)

The proposal was placed in 345th Meeting of SEAC held on 10.01.2023. The Committee noted that the PP has not turned up during the meeting, hence SEAC decided to defer the proposal and called for explanation for not attending the meeting. 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. Executive Engineer WRD has applied for Terms of Reference for Proposed Expansion of Construction of Groyne (repairing and strengthening of the existing groynes at Periyanayagi street) at Kovalam, Periyanaki street, Agastheeswaram Taluk, Kanyakumari District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 7(e) "Ports, harbours, break waters, dredging" of the Schedule to the EIA Notification, 2006, as amended.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

Now the proposal was placed in this 377th Meeting of SEAC held on10.05.2023. Based on the presentation made by the proponent and the documents furnished, the SEAC decided to **prescribe ToR for the preparation of EIA report along with Public Hearing**. The EIA shall include standard ToR along with the following additional ToR:

1. The proponent shall furnish a detailed study report on the existing and proposed groynes in the entire stretch from Enayam Village to Kovlam Village, erosion pattern before and after construction of groynes, drift of sea material, material of construction of groynes, its effects, merits and demerits of stone structures and soft groynes, site specific study and implications of the proposed project activity by any of these scientific and academic institutions - Department of Ocean Engineering, Indian Institute of Technology, Madras and National Institute of Ocean Technology, Chennai.
2. The proponent shall submit the feasibility report by involving the reputed research institutions - Indian Institute of Technology, Madras – Dept of Ocean Engineering and National Institute of Ocean Technology, Chennai on removal of the longstanding & existing groynes which includes the methodology of removal, disposal of waste materials, Cost Benefit Analysis and the environmental impacts during the excavation and checking the manoeuvrability studied by reputed institutions like Central Water and Power Research Station (CWPRS), Pune.
3. Study alternative site and methodology and also explore the possibilities of using submerged dykes instead of Groynes.
4. A study shall be conducted to identify the location of dredged material dumpsite. The EIA report shall include the coordinates of dumpsite and reclamation.
5. Constant dredging must be carried out in the area in order to prevent silting and a permanent dredger must be provided and data regarding quantity of silt dredged shall be furnished.
6. One of the major environmental issues concerning the project is that sea bed material will be dredged and the disposal mechanism shall be furnished. The

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

characteristics of the dredged materials should be furnished along with the possible adverse impact of the same in the above feasibility study.

7. Within 10km radius all the parameters like air, sediment and biology including coastal ecology should be studied in detail.
8. The impact of dredging should be evaluated in detail with the comprehensive EIA report.
9. The sampling should be done in grid pattern and every one kilometre the samples (air, water, sediment and biological samples) within the 10km of radius.
10. Heavy metal studies in water and sediments shall be conducted.
11. The project proponent shall submit a comprehensive monitoring plan for coastal ecology covering coastal ecosystem and riverine system for both construction and operation period. All physical, chemical and biological parameters including plankton, productivity, benthic fauna and flora, fishery, etc shall be covered in monitoring plan. Monitoring during construction period will be on weekly basis and during the operational period on seasonal basis (4 times in a year, for a minimum of 5years).
12. There should not any damage/ impact on these resources and associated biodiversity. The project proponent shall submit the detailed proposal to implement mangrove afforestation by involving reputed institution like Annamalai University (Marine Biology Centre) and a detailed plan with budget shall be prepared for Mangrove afforestation and monitoring for a period of minimum 5 years in consultation with the said institution and submit a copy of the same along with the EIA Report. The proponent shall also sign an MoU and submit a copy of the same along with EIA report
13. An impact study on movement of turtles due to the proposed activity shall be conducted by reputed institutions like Annamalai University.
14. Impact of the distortion effects due to the proposed expansion of groynes shall be part of EIA.
15. Impact on the clay deposition shall be studied.
16. The Indian Institute of Technology, Madras – Dept of Ocean Engineering,

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

shall present with data whether there is an increase in sea level or MSL level in EIA report.

17. The PP shall study the effect of construction of groynes on the shoreline in EIA report.
18. The PP shall discuss implication of NGT order in the EIA report.

Agenda No: 377- 06
(File No: 9903/2023)
Proposed sand quarry lease over an extent of 4.90.0 Ha in S.F.No: 195(P), Veeramulayanatham Village, Bhuvanagiri Taluk, Cuddalore District Tamil Nadu by the Excecutive Engineer, PWD - For Environmental Clearance. (SIA/TN/MIN/412520/2023, Dated: 06.01.2023)

The proposal was placed in this 377th meeting of SEAC held on 10.05.2023. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in). During the meeting the PP has requested to place this subject in ensuing meeting. Therefore SEAC decided to defer the proposal.

AGENDA ITEM No: 377-07
(File No: 9471/2023)
Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 102/1, 102/2, 102/3, 102/4, 102/5A, 102/6, 110/1, 110/2, 110/3, 110/4, 110/5, 110/6, 110/7A, 110/7B, 110/7C, 110/8, 110/9, 110/10, 110/11A, 110/11B, 110/11C, 110/11D, 110/12, 110/13, 110/14, 110/15, 116/16A, 110/16B, 110/17, 110/18, 110/19, 110/20, 111A/1A, 111A/2, 111A/3, 113A/1, 113A/2A, 113A/2B1, 113A/2B2, 113A/4A, 113A/4B, 113A/4C, 113A/5, 113A/6, 114/1A, 114/1B, 114/2, 114/3, 114/4, 114/6A, 114/6B, 114/7, 114/8, 114/9 in Sethiyathope,Village, Bhuvanagiri Taluk, Cuddalore District by M/S. M.R.KRISHNAMURTHY CO-OPERATIVE SUGAR MILLS LTD. (MRKCSML) - For Environmental Clearance. (SIA/TN/IND2/426454/2023 , dated 17.4.2023)

The proposal was placed in this 377th meeting of SEAC held on 11.05.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The project proponent gave a detailed presentation. SEAC noted the following:

1. The Proponent, M/S. M.R.KRISHNAMURTHY CO-OPERATIVE SUGAR MILLS LTD. (MRKCSML) has applied for Environmental Clearance for the proposed 60

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 102/1, 102/2, 102/3, 102/4, 102/5A, 102/6, 110/1, 110/2, 110/3, 110/4, 110/5, 110/6, 110/7A, 110/7B, 110/7C, 110/8, 110/9, 110/10, 110/11A, 110/11B, 110/11C, 110/11D, 110/12, 110/13, 110/14, 110/15, 116/16A, 110/16B, 110/17, 110/18, 110/19, 110/20, 111A/1A, 111A/2, 111A/3, 113A/1, 113A/2A, 113A/2B1, 113A/2B2, 113A/4A, 113A/4B, 113A/4C, 113A/5, 113A/6, 114/1A, 114/1B, 114/2, 114/3, 114/4, 114/6A, 114/6B, 114/7, 114/8, 114/9 in Sethiyathope Village, Bhuvanagiri Taluk, Cuddalore District, Tamil Nadu.

2. The proposed quarry/activity is covered under Category "B1" of Item 5(g)-Distilleries, "Industrial Projects-2" of the Schedule to the EIA Notification, 2006, as amended.
3. ToR issued vide T.O. Lr. No. SEIAA-TN/F.No. 9471/SEAC/5(g)/ToR-1282/2022 Dated: 08.10.2022
4. Proposed Production of Ethanol from Cane Juice – 10320 KL/Annum (38 KLPD) & Ethanol from B-Heavy Molasses – 5987.8 KL/Annum (22KLPD) along with 1.5 MW X 1 no capacity Back Pressure Turbine will be installed for captive power plant.
5. By-product:

   Liquid CO2 – 7725 PA

   Fusel Oil – 25.7 KL/Annum

   Potash Rich Boiler Ash – 310 TPA
6. The proposed Distillery will operate under "Zero Liquid Discharge"(ZLD) concept.

Based on the presentation and documents furnished by the project proponent, the SEAC noted that the EIA report did not address the additional ToR issued vide T.O. Lr. No. SEIAA-TN/F.No. 9471/SEAC/5(g)/ToR-1282/2022 Dated: 08.10.2022 and further noticed that the Project Proponent has not furnished the study reports sought by the Committee. Hence the SEAC directed the NABET Consultant to prepare and submit the EIA report in accordance with the ToR issued and to furnish the study reports called for by the Committee. On receipt of the same the Committee will deliberate further and decide on the future course of action.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

Agenda No. 377 – 08.
(File No. 9359/2022)
Proposed Gravel Quarry over an extent of 1.44.0Ha at SF.No. 705/2 Kosanam 'B' Village, Nambiyur Taluk, Erode District, Tamil Nadu by Tmt. S. Vijayalakshmi,- for Environmental Clearance.(SIA/TN/MIN/279824/2022, Dt: 22.08.2022)

Earlier, this proposal was placed for appraisal in this 333rd meeting of SEAC held on 01.12.2022. 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. S. Vijayalakshmi** has applied for Environmental Clearance for the proposed Gravel Quarry over an extent of 21.44.0Ha at SF.No. 705/2 Kosanam 'B' Village, Nambiyur Taluk, Erode 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.

File No	9359	Category	1(a) - B2

Sl. No	Salient Features of the Proposal		
1.	Name of the Owner/Firm	:	Tmt.S.Vijayalakshmi, W/o. Senthilkumar, No. 6/11A, Semmandampalayam Pudur, Sulur Taluk, Coimbatore District – 641 668
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limeston e)	:	Gravel
3.	S.F Nos. of the quarry site with area break-up	:	705/2
4.	Village in which situated	:	Kosanam 'B'
5.	Taluk in which situated	:	Nambiyur
6.	District in which situated	:	Erode
7.	Extent of quarry (in ha.)	:	1.44.0Ha
8.	Latitude & Longitude of all corners of the quarry site	:	BOUNDARY CO-ORDINATES S. No. / LATITUDE / LONGITUDE

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

			1	11° 21' 22.97"N	77° 22' 20.87"E
			2	11° 21' 28.29"N	77° 22' 21.78"E
			3	11° 21' 28.24"N	77° 22' 22.29"E
			4	11° 21' 27.63"N	77° 22' 24.73"E
			5	11° 21' 27.47"N	77° 22' 25.20"E
			6	11° 21' 23.23"N	77° 22' 23.96"E
			7	11° 21' 23.58"N	77° 22' 22.44"E
			8	11° 21' 23.20"N	77° 22' 21.96"E
9.	Topo Sheet No.	:	58 - E/ 07		
10.	Type of mining	:	opencast Mechanized method		
11.	Life of Project	:	-		
	Lease Period		Three Years		
	Mining Plan Period	:	Three Years		
12.	Mining Plan Details	:	As per approved Mining Plan		As modified by SEAC
	Geological Resources m^3 (RoM)	:	Gravel		NIL
			59,689m^3		NIL
	Minable Resources m^3 (RoM)	:	Gravel		NIL
			38,704m^3		NIL
	Annual Peak Production in m3	:	Gravel		NIL
			38,704m^3		NIL
	Maximum Depth in meters	:	5m (3m AGL + 2m BGL)		
13.	Depth of water table	:	47m to 42m		
14.	Man Power requirement per day:	:	8		
15.	Water requirement: 1. Drinking water 2. Utilized water 3. Dust suppression 4. Green belt	:	0.2 1.0 0.4 **1.6 KLD**		
16.	Power requirement		1.6kilo litter per day SEB. DG set will be provided for emergency use.		
17.	Precise area communication approved by the Department of G&M.	:	Rc.No.029/Mines/2019, Dated: 10.03.2022.		

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

18.	Mining Plan approved by Department of G&M.	:	Rc.No.029/Mines/2019, Dated: 07.04.2022.		
19.	Department of G&M, Deputy Director500m Cluster Letter		R.C.No.029/Mines/2019, Dated: 07.04.2022.		
20.	VAO Certificate Regarding Structures within 300m Radius		A.Konnam (Group) Kadasellipallayam Village, Nammiyur Taluk, Dated on: 20.04.2022		
21.	Project Cost (excluding EMP cost)	:			
22.	EC Recommendation	:	Validity	Three Years	
				Rough Stone	Gravel
		:	Max Total RoM in m^3		**59,689 m^3**
		:	Annual Max RoM in m^3		
		:	Max Depth in mtrs		5m (3m AGL + 2m BGL)
23.	EMP cost (in Rs. Lakh).	:	1,75,000/-		
24.	CER cost (in Rs. Lakh).	:	Rs.2,00,000/-		

Based on the presentation and documents furnished by the project proponent, SEAC decided to obtain the following additional details from the PP.

1. The PP shall furnish the DFO letter stating the proximity distance of nearest RF, WLS etc.,
2. The PP shall furnish a letter from AD mines stating the distance of nearby waterbodies, Odai, canal etc., located within 50m/adjoining to the proposed site.

Now, this proposal again been placed in 377th SEAC meeting held on 10.5.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to **recommend the proposal (as per Sl No. 22) for the grant of Environmental Clearance** subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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.**
2) Tree plantation & fencing around the mine lease area shall be completed before starting the production.
3) 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.
4) 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.
5) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
6) The Project proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc., No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.
7) 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.

8) 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.

9) 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.

10) 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.

11) 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.

12) 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. 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.

13) 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

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SEAC -TN

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SEAC- TN

14) **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, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.

15) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.

16) The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50m 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.

17) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.

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

19) 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.

20) 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.

21) The Project proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed

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SEAC -TN

CHAIRMAN
SEAC- TN

due to their mining activities and restore the land to a condition that is fit for the growth of fodder, flora, fauna etc.

22)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.

23)The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled 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.

24)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.

25)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.

26)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.

27)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.

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 Minutes.

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29)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 EMP furnished.

30) As accepted by the Project Proponent, the revised CER cost is Rs. 2 lakhs and the amount shall be spent for the Government school Kosanam village as committed before obtaining CTO from TNPCB.

Agenda No: 377-09
(File No: 9891/2023)
Proposed Rough Stone & Gravel lease area over an extent of Extent 1.86.0 Ha at S.F.No. 107/1A, 107/1B & 107/1D of Sithali (West) Village, Kunnam Taluk, Perambalur District, Tamil Nadu by Thiru.D. Kesavaram, - For Environmental Clearance. (SIA/TN/MIN/421104/2023, dt: 06.03.2023)

The proposal was placed for appraisal in this 377th meeting of SEAC held on 10.05.2023. 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, Thiru.D. Kesavaram has applied for Environmental Clearance for the proposed Rough Stone & Gravel lease area over an extent of Extent 1.86.0 Ha at S.F.No. 107/1A, 107/1B & 107/1D of Sithali (West) Village, Kunnam Taluk, Perambalur District, Tamil Nadu.
2. The project/activity is covered under category "B2" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
3. As per the mining plan, the lease period is for 10 years. The production for 5 years not to exceed 191870 m^3 of Rough stone and 26780 m^3 gravel to an ultimate depth of Mining 30m BGL.

File No	9891/2023	Category	1(a) - B2
	Online Proposal: SIA/TN/MIN/421104/2023, dt: 06.03.2023		EC
Sl. No	Salient Features of the Proposal		

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1.	Name of the Owner/Firm	:	Thiru.D. Kesavaram, S/o. Devarajan, 20/33Vethashalapuram, Thogamalai Post, Kulithalai Taluk, Karur District – 621313.	
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Rough Stone & Gravel	
3.	S.F Nos. of the quarry site with area break-up	:	107/1A, 107/1B & 107/1D,	
4.	Village in which situated	:	Sithali (West)	
5.	Taluk in which situated	:	Kunnam	
6.	District in which situated	:	Perambalur	
7.	Extent of quarry (in ha.)	:	1.86.0 Ha	
8.	Latitude & Longitude of all corners of the quarry site	:	11°16'11.60"N to 11°00'17.90"N 78°58'1.01"E to 78°58'5.51"E	
9.	Topo Sheet No.	:	58– I/15	
10.	Type of mining	:	Opencast Semi -Mechanized of Mining	
11.	Life of Project	:	10 Years	
	Lease Period		10 Years	
	Mining Plan Period	:	5 Years	
12.	Mining Plan Details	:	As per approved Mining Plan	
	Geological Resources m^3 (RoM)	:	Rough Stone: 706496 m^3	Gravel: 37184 m^3
	Minable Resources m^3 (RoM)	:	Rough Stone: 202720 m^3	Gravel: 26780 m^3
	Annual Peak Production in m3	:	Rough Stone: 40800 m^3	Gravel: 10200 m^3
	Maximum Depth in meters		40 m BGL	
13.	Depth of water table	:	63m-68m	
14.	Man Power requirement per day:	:	30 Nos.	
15.	Water requirement: 1. Drinking water 2. Utilized water 3. Dust suppression 4. Green belt	:	1.0 KLD 0.3 KLD 0.5 KLD 0.2 KLD	

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<table>
<tr><td>16.</td><td>Power requirement</td><td></td><td colspan="3">TNEB</td></tr>
<tr><td>17.</td><td>Precise area communication approved by the Department of G&M.</td><td>:</td><td colspan="3">Rc.No.76/2022/G&M dt: 09.02.2023</td></tr>
<tr><td>18.</td><td>Mining Plan approved by Department of G&M.</td><td>:</td><td colspan="3">Rc.No.76/2022/G&M dt: 14.02.2023</td></tr>
<tr><td>19.</td><td>Department of G&M, Deputy Director500m Cluster Letter</td><td></td><td colspan="3">Rc.No.76/2022/G&M dt: 14.02.2023</td></tr>
<tr><td>20</td><td>VAO Certificate Regarding Structures within 300m Radius</td><td></td><td colspan="3">Letter dt: 03.03.2023</td></tr>
<tr><td>21.</td><td>Project Cost (excluding EMP cost)</td><td>:</td><td colspan="3">Rs.61.82 Lakhs</td></tr>
<tr><td>22</td><td>EC Recommendation</td><td></td><td>Validity</td><td>5 Years subject to the following upper limits.</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td>Rough Stone</td><td>Gravel</td></tr>
<tr><td></td><td></td><td></td><td>Max Total RoM in m^3</td><td>191870 m^3</td><td>26780 m^3</td></tr>
<tr><td></td><td></td><td></td><td>Annual Max RoM in m^3</td><td>40800 m^3</td><td>10200 m^3</td></tr>
<tr><td></td><td></td><td></td><td>Max Depth in mtrs</td><td colspan="2">30m</td></tr>
<tr><td>23</td><td>EMP cost (in Rs. Lakh).</td><td>:</td><td colspan="3">Rs.199.775 Lakhs/ 10 Years</td></tr>
<tr><td>24</td><td>CER cost (in Rs. Lakh).</td><td>:</td><td colspan="3">Rs.5.70 Lakhs</td></tr>
</table>

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

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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.

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9) 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.

10) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.

11) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.

12) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.

13) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.

14) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.

15) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.

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16) 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.

17) 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.

18) 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.

19) **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.

20) 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.

21) However, within one year from the commencement of mining operations after obtaining prior permission from the DMS/Chennai Region, the PP shall carry out the scientific studies on 'Design of Blast parameters for reducing the impact of blast-induced ground/air vibrations and fly rock caused due to operation of the quarry by adopting appropriate controlled blasting techniques', by involving a

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SEAC -TN

CHAIRMAN
SEAC- TN

reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal and Anna University – CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance.

22)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.

23) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.

24)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.

25)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.

26)The PP shall ensure that the following provisions are provided due to the existence of Reserved Forest/Reserve Land at a distance of less than 100 m from the project site:

i. Since the R.F is located very close to the proposed quarry site, the PP shall develop Green Belt (Thick Tree plantation in three rows) along the boundary of the mine lease area before obtaining the CTO from the TNPCB.

ii. The proponent shall construct and maintain proper fencing all around the boundary of the proposed working quarry adjacent to the direction of the location of the Reserved Forest before the commencement of the

operation and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.

iii. The PP shall take steps so that the overburden, waste rock, rejects and fines generated during the mining operations shall be stored in separate dumps positioned in opposite direction to the location of the reserved forest.

iv. The PP shall ensure that such waste/reject dumps shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment and to prevent causation of floods.

v. The PP shall select the site for dumps on impervious ground to ensure minimum leaching effects due to precipitations.

vi. The PP shall take necessary steps that wherever possible, the waste rock, overburden etc. shall be back-filled into the mine excavations with a view to restoring the land to its original use as far as possible.

vii. Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the PP shall take adequate steps in discussion with the concerned DFO to suitably terrace the waste dumps placed within the lease hold area ensuring the stability through vegetation to consolidate the green belt development in the areas adjacent to the reserved forest location.

viii. The PP shall carry out the scientific investigations in order to keep the ground and noise vibrations caused by blasting operations and movement of HEMM such as Excavators, Trucks within safe limit.

ix. The PP shall not perform secondary breakage involving the drilling & blasting in the quarrying operations and it can be replaced with non-conventional methods such as noise-controlled rock breakers, usage of non-explosive expansive materials/chemicals, Hydraulic Splitting based on the suitable scientific studies carried out by any reputed scientific and academic institutions.

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SEAC- TN

x. The PP shall take adequate steps to control the air pollution due to fines, dust, smoke or gaseous emissions during the quarrying operations within 'Permissible Limits' specified under the environmental laws.

xi. The Quarrying and Mining activities shall be restricted in the Eco-sensitive Zone of 60 m from the boundary of the Reserved area and hence the PP shall not even indulge in constructing the haul roads in these areas.

xii. No development on existing steep hill slopes or slopes with a high degree of erosion shall be permitted. Hence, the PP shall not carry out the quarrying on steep hill slopes with a gradient of 20° or more / areas with a high degree of erosion on forestland.

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

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

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

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

28)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.

29)Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.

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SEAC -TN

CHAIRMAN
SEAC- TN

30) 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.

31) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.

32) 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.

33) 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.

34) 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.

35) The project proponent shall ensure that the provisions of the MMDR Act, 1957&the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled 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.

36) 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.

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37)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.

38)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.

39)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.

40) 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.

41) 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.

42)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.

43)As accepted by the Project proponent the CER cost is Rs. 5.70 Lakhs and the amount shall be spent for the Govt. High School, Peelvadi Village, as committed, before obtaining CTO from TNPCB.

Agenda No: 377 – 10.
(File No: 9904/2023)

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Proposed sand quarry in Vellaru river over an extent of 4.87.5 Hectares in S.F. No. 163 (P) in Kavalagudi Village, Srimushnam Taluk, Cuddalore District, TamilNadu by The Executive Engineer, Public Works Department, WRD, Mining and Monitoring Division, Villupuram – For Environmental Clearance. (SIA/TN/MIN/413139/2023, dated 06.01.2023)

The proposal was placed in 377th SEAC meeting held on 10.05.2023. 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, The Executive Engineer, Public Works Department, WRD, Mining and Monitoring Division, Villupuram has applied for Environmental Clearance for the sand quarry in Vellaru river over an extent of 4.87.5 Hectares in S.F. No. 163 (P) in Kavalagudi Village, Srimushnam Taluk, Cuddalore District, TamilNadu.
2. The project/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. Production as per mining plan 1,79,511m3 (above TBL 1, 30,761 m3 an average height of 2.682m and below TBL 48,750 m3 1m below TBL) in one Year.

SEAC after detailed discussion has decided to defer the proposal and to take up this proposal in any one of the ensuing SEAC meetings.

Agenda No: 377 – 11.
(File No: 9262/2023)

Proposed Development of Industrial Park in an area of 425.55 ha (1051.10 Acres) at E.Kumaralingapuram Village SF.Nos.134/1, 134/2, 134/3, 134/4, 134/5, 154/1, 154/2, 154/4A, 154/3, 154/4B, 155/1, 155/2, 155/3, 155/4, 155/5, 155/6, 155/7, 156/1, 156/2, 156/3, 156/4, 156/5, 156/6, 156/7, 156/8, 219/1, 219/2, 219/3, 220/1, 220/2, 220/3, 228/1, 228/2, 215/1A, 215/1B, 215/2, 215/3, 216, 217, 234/1, 234/4, 234/2, 234/3, 235/1, 235/2, 235/3, 235/4, 235/5A, 235/5B, 231/1, 231/2, 231/3, 231/4, 231/5, 231/6, 232/1, 232/5, 232/2, 232/3, 232/4, 232/6A, 232/6B1, 232/6B2, 229/1, 229/2, 229/3, 229/4, 226/6A, 227/1, 227/2, 227/3, 227/4, 227/5, 222/1, 222/2A, 222/2B1, 223, 224, 225/1, 225/2A, 225/3, 225/4, 225/5, 225/6A1, 225/6B1A, 225/6B1B, 221/1, 221/2, 221/3, 230/1, 230/2, 230/3, 230/4, 230/5, 230/6, 230/7, 206, 207, 233/1, 233/2A, 233/2B, 233/2C, 233/2D, 233/2E, 233/2F, 233/3, 235/6,

236, 237, 238/1, 238/2, 238/3, 238/4, 239/1A, 239/1B, 239/2, 239/3, 239/4, 239/5, 240, 263/1, 263/2, 263/3, 263/4A1, 263/4A2, 263/4B, 263/5A1, 263/5A2, 263/5A3, 263/6A1, 263/6B1, 263/6C1, 263/7, 263/8A, 263/9A, 263/10A, 263/11, 263/12A, 264/1, 264/2, 264/3, 264/4, 264/5, 264/6, 264/7, 265/2, 265/3, 265/4, 265/5, 266/1, 266/2, 266/3, 266/4, 266/5, 266/6, 266/8, 266/7, 266/9, 266/10, 266/11, 266/12, 266/13, 266/14, 266/15, 267/1, 267/2, 267/3, 267/4, 267/5, 268/1A, 268/1B, 268/1C, 268/1D, 268/2, 268/3, 268/4, 269/1, 269/2, 269/3, 269/4, 269/5, 269/6, 269/7, 270/1, 270/2, 270/3, 270/4, 270/5, 270/6, 270/7, 270/8, 271/1, 271/2, 271/3, 271/4A, 271/4B, 271/5, 271/6, 271/7, 271/8, 271/9, 271/10, 272/1, 272/2, 272/3, 272/4, 272/5, 272/6, 272/7, 272/8, 272/9, 273/1, 273/2, 273/3, 273/4, 273/5, 273/6, 273/7, 273/8, 273/9, 273/10, 274/1, 274/2A, 274/2B, 274/3, 274/4, 275/1, 275/2, 275/3, 276/1, 276/2, 276/3, 276/4, 276/5, 277/1, 277/2A, 277/2B, 277/3, 277/4, 278/1, 278/2A, 278/2B, 278/3, 278/4, 278/5, 279/1, 279/2, 279/3, 279/4, 279/5A, 279/5B, 279/6, 279/7, 279/8, 279/9, 280/1, 280/2A, 280/2B, 280/3, 280/4, 280/5, 280/6, 280/7, 280/8, 281/1, 281/2, 281/3, 281/4, 281/5A, 281/5B, 281/6, 281/7, 281/8, 281/9, 281/10, 282/1, 282/2A, 282/2B, 282/2C, 283/1, 283/2A1, 283/2C1, 283/3A, 283/4A, 283/5, 283/6A, 80/1, 80/2A, 80/2B, 81/1, 81/2, 81/3, 81/4, 81/5A, 81/5B, 81/6, 81/7, 82/1, 82/2, 82/3, 82/4, 82/5, 82/6, 82/7, 82/8, 82/9, 83/1, 83/2, 83/3, 83/4, 83/5, 83/6, 83/7A, 83/7B, 83/8, 84/1, 84/2, 84/3, 84/4, 84/5A, 84/5B, 84/6, 84/7, 85/1, 85/2, 85/3, 85/4, 86/2, 86/3, 86/4, 86/5, 86/6, 99/1A, 99/1B, 99/1C, 99/1D, 99/1E, 99/2A, 99/2B, 99/2C, 99/3, 99/4, 99/5, 99/6, 99/7, 100/1, 100/2, 101/1, 101/2, 101/3, 101/4, 101/5, 101/6A, 101/6B, 101/6C, 101/6D, 101/6E, 101/6F, 171, 172, 173/1, 173/2, 173/3, 173/4, 173/5, 173/6, 173/7, 173/8, 173/9, 174/1, 174/2, 174/3, 174/4, 174/5, 174/6, 174/7, 174/8, 175/1, 175/2, 175/3, 175/4, 175/5A, 175/5B, 175/6, 176/1, 176/2, 176/3A, 176/3B, 176/4, 177/1, 177/2, 177/3, 177/4, 177/5, 177/6, 177/7, 177/8, 177/9, 178/1, 178/2, 178/3, 178/4, 178/5A, 178/5B, 179/1, 179/2, 179/3A, 179/3B, 179/4, 179/5, 179/6, 202/1, 202/2A, 202/2B, 202/3, 202/4, 202/5A, 202/5B, 202/6A, 202/6B, 203/1, 203/2, 203/3A1, 203/3A2, 203/3B, 203/4, 204/1, 204/2, 204/3, 204/4, 205/1, 205/2, 205/3, 205/4, 205/5, 208/1, 208/2, 208/3, 208/4, 208/5, 208/6, 208/7, 209/1, 209/2, 209/3, 209/4, 209/5, 209/6, 210/1, 210/2A, 210/2B, 210/2C, 210/2D, 210/3, 210/4A1, 210/4A2, 210/4A3, 210/4A4, 210/4A5, 210/4B, 210/5, 211/1,

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

211/2, 211/3A, 211/3B, 211/4A, 211/4B, 211/4C, 211/4D, 211/5, 212/1A, 212/1B1, 212/1B2, 212/2A, 212/2B, 212/3, 212/4A, 212/4B, 212/5, 213/1, 213/2, 213/3A, 213/3B, 213/3C, 213/3D, 213/3E, 213/3F, 213/3G, 213/4, 213/5, 213/6, 180/1A, 180/1B, 180/1C, 180/1D, 180/2, 180/3, 181/1, 181/2, 181/3A, 181/3B, 181/4, 181/5, 181/6, 182/1, 182/2, 183/1A, 183/1B, 183/2, 184/1, 184/2, 184/3, 185/1, 185/2, 185/3, 185/4, 186/1, 186/2, 186/3, 187/1, 187/2, 187/3A, 187/3B, 187/3C, 187/4, 188/1, 188/2, 189/1, 189/2, 189/3, 189/4, 189/5, 189/6, 189/7, 190/1, 190/2, 190/3, 190/4, 191/1, 191/2, 191/3, 191/4, 191/5A, 191/5B, 191/6, 191/7, 192/1, 192/2, 192/3, 192/4A, 192/4B, 193/1, 193/2, 193/3, 193/4, 193/5, 193/6, 194/1, 194/2, 194/3, 195/1, 195/2, 195/3, 196/1A, 196/1B, 196/2, 196/3, 197/1, 197/2, 197/3, 197/4, 197/5A, 197/5B, 198/1, 198/2, 199/1, 199/2, 199/3, 199/4, 200, 201/1A, 201/1B, 201/2A, 201/2B, 201/3.

E.Muthulingapuram Village SF.Nos. 14/1, 14/2, 14/3, 14/4, 14/5, 14/6, 14/7, 15/1, 15/2, 15/3, 62/1, 62/2, 62/3, 62/4, 63/1, 63/2, 63/3, 64, 67, 68/1, 68/2, 69/1, 69/2, 69/3, 69/4, 71/1, 71/2, 71/3, 71/4.

Thulukapatty Village SF.Nos. 239/1, 239/2, 239/3, 239/4, 239/5, 239/6, 239/7, 239/8, 239/9, 239/10, 239/11, 240/1A, 240/1B, 240/2A, 240/2B, 240/2C, 240/3B, 240/3C, 240/3D, 240/4A, 240/4B, 240/4C, 240/4D, 240/6A, 240/6B, 240/7A, 240/7B, 240/8, 240/9A, 240/9B, 240/10A, 240/10B, 240/11, 240/12, 240/13, 241/1, 241/2, 241/3, 241/4A, 241/4B, 241/5, 241/6, 241/7, 241/8, 241/9, 242/1, 242/2, 242/3A, 242/3B, 242/4A, 242/4B, 242/5A, 242/5B, 242/5C, 242/6, 243/1A, 243/1B, 243/1C, 243/1D, 243/2, 243/3, 244, 245/1, 245/2, 247/1, 247/2, 247/3A, 247/3B, 247/4, 247/5, 248/1, 248/2, 248/3A, 248/3B, 248/4A, 248/4B, 248/4C, 248/5, 248/6, 248/7A, 248/7B, 248/8, 248/9, 248/10, 248/11, 250/1A, 250/1B, 250/2, 250/4, 250/5B, 250/6, 250/7A, 250/7B, 250/8A, 250/8B, 250/9, 250/10, 250/11, 250/12, 250/13, 250/14, 250/15, 250/16, 250/17 Sattur & Virudhunagar Taluks, Virudhunagar District Tamil Nadu By M/s. State Industries Promotion Corporation of Tamilnadu Limited (SIPCOT) – For Environmental Clearance. (SIA/TN/INFRA2/423033/2023, dated 22.03.2023)

The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

1. The project/activity is covered under Category "B" of Item 8(b) "Township & Area Development Projects" of the Schedule to the EIA Notification, 2006.
2. TOR issued vide Lr No. SEIAA-TN/F.No.9262/SEAC/8(b)/ToR-1205/2022 dated:14.07.2022.
3. EIA report Submitted :23.03.2023

The proposal was placed in 377th SEAC meeting held on 10.05.2023. Based on the presentation and documents furnished, SEAC decided to defer and directed the PP & the EIA Coordinator that PP shall revise the presentation including the following details so as to take up the proposal in any one of the ensuing authority meetings.

i) Types of Wet Textile Industries shall be explained along its water requirement & estimated effluent generation.
ii) Details of no. of trees with species to be down for proposed project.
iii) Industrial Housing details shall be provided.
iv) Details of Court cases.
v) Details of Oorani present within the site should be rejuvenated and its cost shall be included in EMP.
vi) Four Nos. of CAAQMS should be provided in the park and its cost shall be included in EMP.
vii) Baffle wall around Match Box industry to be proposed and its cost shall be included in EMP.
viii) Bio diversity plan report along with Conservation Plan regard to Peafowl has to be Submitted.
ix) CETP sludge disposal method shall be explained along with CETP expert.
x) OSR should be provided separately as land parcels in the layout. Accordingly, layout to be revised and GB coordinates map shall be furnished.

Agenda No: 377-12
(File No: 9892/2023)
Proposed Gravel lease area over an extent of Extent 1.04.0 Ha at S.F.No. 45/1A, 45/1C and 45/1D of Kulasekarapatti Village, Tenkasi Taluk, Tenkasi District, Tamil Nadu by Tmt.P.Sundari- For Environmental Clearance. (SIA/TN/MIN/420386 dated 01.03.2023)

The proposal was placed for appraisal in this 377th meeting of SEAC held on

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SEAC -TN

CHAIRMAN
SEAC- TN

10.05.2023. 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.Sundari has applied for Environmental Clearance for the proposed Gravel lease area over an extent of Extent 1.04.0 Ha at S.F.No. 45/1A, 45/1C and 45/1D of Kulasekarapatti Village, Tenkasi Taluk, Tenkasi District, Tamil Nadu.
2. The project/activity is covered under category "B2" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
3. As per the mining plan, the lease period is for 3years. The production for 3 years not to exceed 14,850 m^3 gravel to an ultimate depth of Mining 2m BGL.

File No	9892 **Online Proposal:** Proposal No.SIA/TN/MIN/**420386** **dated 01.03.2023**	Category	1(a) - B2 EC

Sl. No	Salient Features of the Proposal		
1.	Name of the Owner/Firm	:	Tmt.P.Sundari, W/o.M.Gandhi Selwyn, No.70, Vallam Road, Shenkottai Taluk, Tenkasi District.
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Gravel
3.	S.F Nos. of the quarry site with area break-up	:	45/1A, 45/1C and 45/1D
4.	Village in which situated	:	Kulasekarapatti
5.	Taluk in which situated	:	Tenkasi
6.	District in which situated	:	Tenkasi
7.	Extent of quarry (in ha.)	:	1.04.0 Ha
8.	Latitude & Longitude of all corners of the quarry site	:	08°55'59.86"N to 08°56'05.09"N 77°21'25.03"E to 77°21'28.08"E

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

9.	Topo Sheet No.	:	58 H/05
10.	Type of mining	:	Opencast method of shallow mining without drilling and blasting
11.	Life of Project	:	3 years
	Lease Period		3 years
	Mining Plan Period	:	3 years
12.	**Mining Plan Details**	:	**As per approved Mining Plan**
			Gravel
	Geological Resources m^3 (RoM)	:	20,800 m^3
	Minable Resources m^3 (RoM)	:	14,850 m^3
	Annual Peak Production in m3	:	4,950 m^3
	Maximum Depth in meters	:	2m BGL
13.	Depth of water table	:	34m
14.	Man Power requirement per day:	:	7 Nos.
15.	Water requirement: 1. Drinking water 2. Dust suppression 3. Green belt	:	1.35 KLD 0.35KLD 0.5 KLD 0.5 KLD
16.	Power requirement		TNEB 2470 litres of HSD will be utilized
17.	Precise area communication approved by the Assistant Geologist , Assistant Director(i/c), Dept. of Geology & Mining	:	Rc.No.M2/562/2022 Dated:09.12.2022
18.	Mining Plan approved by Assistant Geologist , Assistant Director(i/c), Dept. of Geology & Mining	:	Rc.No.M1/562/2022 Dated:15.12.2022
19.	Assistant Geologist , Assistant Director(i/c), Dept. of Geology & Mining 500m Cluster Letter		Rc.No.M1/562/2022 Dated:15.12.2022

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

20.	VAO Certificate Regarding Structures within 300m Radius		Letter Dated: 17.12.2022	
21.	Project Cost (excluding EMP cost)	:	Rs.6,15,000/-	
22.	**EC Recommendation**	:	**Validity**	**30 years subject to the following upper limits.**
				Gravel
		:	Max Total RoM in m^3	14850 m^3
		:	Annual Max RoM in m^3	4950 m^3
		:	Max Depth in mtrs	2m BGL
23.	EMP cost (in Rs. Lakh).	:	Capital cost – Rs.3,24,000/- recurring cost – Rs. 2,53,000 /-	
24.	CER cost (in Rs. Lakh).	:	Rs. 5,00,000 /- as accepted by the PP	

Based on the presentation and documents furnished by the project proponent, SEAC decided to **recommend the proposal (as per Sl.No. 22) for the grant of Environmental Clearance** subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

1) **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.**
2) Tree plantation & fencing around the mine lease area shall be completed before starting the production.
3) 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.
4) 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.

5) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.

6) The Project proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc., No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.

7) 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.

8) 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.

9) 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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

10) 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.

11) 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.

12) 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. 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.

13) 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

14) **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, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.

15) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.

16) The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50m 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.

17) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.

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

19) 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.

20) 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.

21) 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.

22) 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.

23) The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled 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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

24)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.

25)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.

26)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.

27)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.

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 Minutes.

29)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 EMP furnished.

30) The PP shall remit Rs. 5 lakh to DFO, Thirunelveli as Conservation/mitigation measures for the Nellai Wildlife Sanctuary since the site is within 10km radius.

Agenda No: 377-13
(File No: 9797/2023)
Proposed Rough Stone & Gravel Quarry lease over an extent of 2.97.0Ha at S.F. Nos: 1238/2(Part) of Vettamangalam West Village, Pugalur Taluk, Karur District, Tamil Nadu by M/s. Thirumalai Blue Metals-For Terms of Reference (SIA/TN/MIN/417026/2023 dt 04.02.2023).

The proposal was placed in this 377th Meeting of SEAC held on 10.05.2023. 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. Thirumalai Blue Metals has applied for Terms of Reference for the the Proposed Rough Stone & Gravel Quarry lease over an extent of 2.97.0Ha at S.F. Nos: 1238/2(Part) of Vettamangalam West Village, Pugalur Taluk, Karur 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.
3. As per the mining plan the lease period is 5 years. The mining plan is for the period of five years & production should not exceed 4,00,555 m^3 of Rough Stone & 3,428 m^3 of Gravel. The annual peak production is 1,01,467 m^3 of Rough Stone & 3,428 m^3 of Gravel. The ultimate depth is 55m BGL.
4. Earlier, EC was accorded to the proponent vide Lr.no.SEIAA-TN/F.No.4628/EC/1(a)/3767/2016 dated.26.09.2016 for the quantity of 63494 cu.m of rough stone and 8832 cu.m of Topsoil upto a depth of 17m.
5. CCR From MoEF&CC, IRO (SZ) vide E.P/12.1/2022-23/SEIAA/268/TN/271 Dt:02.03.2023.

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:

1. The PP shall prepare and to submit the Modified Mining Plan with the revised production & development approved by the concerned AD(Mines) which is oriented to accommodate the restriction of the ultimate depth of mining from 55m to 50m considering the safety and environmental issues, at the time of EIA appraisal.
2. The original letter of approval obtained for the modified Mining Plan prepared for the mine shall be furnished during the EIA appraisal.
3. PP shall furnish the registered consent document obtained from the pattadhars for mine lease area.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

4. **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 carry out a 'Slope Stability Assessment' studies for the existing conditions of the quarry wall by involving any of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal – Dept of Mining Engg, and Anna University Chennai-CEG Campus, Chennai. The above studies shall spell out the 'Action Plan' for carrying out the realignment of the benches and quarrying operations in a safe & sustainable manner in the proposed quarry lease.**
5. 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.
6. The PP shall carry out all the required activities as stipulated in the certified compliance for the previous EC obtained and it shall be enumerated with photo & video evidences during the time of EIA appraisal.
7. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
8. 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.
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 after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

MMR 1961 such as blaster, mining mate, mine foreman, II/I 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.,

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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

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SEAC -TN

CHAIRMAN
SEAC- TN

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

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SEAC -TN

CHAIRMAN
SEAC- TN

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 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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: 377-14
(File No: 9530/2022)
Proposed Construction of 3 Shore Protection Groynes at Melmidalam Village, Vilavancode Taluk, Kanniyakumari District, Tamil Nadu by The Executive Engineer, Anti Sea Erosion Division, Water Resource Department, Nagercoil – For Terms of Reference. (SIA/TN/INFRA2/4014480/2022, dated 27.09.2022).

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

The proposal was placed in this 377th Meeting of SEAC held on 10.05.2023. 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, The Executive Engineer, Anti Sea Erosion Division, Water Resource Department, Nagercoil has applied for Terms of Reference for Proposed Expansion of Existing shore production Groynes at Melmidalam Village, Vilavancode Taluk, Kanniyakumari District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 7(e) "Ports, Harbours, breakwaters, dredging" of the Schedule to the EIA Notification, 2006 as amended.
3. Earlier, this proposal was placed for appraisal in the 345th meeting of SEAC held on 10.01.2023. The SEAC noted that the project proponent has not attended the meeting. Hence the subject was not taken up for discussion.

Now, the proposal was again placed in this 377th Meeting of SEAC held on 10.05.2023. Based on the presentation made by the proponent and the documents furnished, the SEAC decided to **prescribe ToR for the preparation of EIA report along with Public Hearing.** The EIA shall include standard ToR along with the following additional ToR:

1. The proponent shall furnish a detailed study report on the existing and proposed groynes in the entire stretch from Enayam Village to Kovlam Village, erosion pattern before and after construction of groynes, drift of sea material, material of construction of groynes, its effects, merits and demerits of stone structures and soft groynes, site specific study and implications of the proposed project activity preferably by Department of Ocean Engineering, Indian Institute of Technology, Madras.
2. The proponent shall submit the feasibility report by involving the reputed research institutions such as Indian Institute of Technology, Madras – Dept of Ocean Engineering, on removal of the longstanding & existing groynes which includes the methodology of removal, disposal of waste materials, Cost Benefit Analysis and the environmental impacts during the excavation and checking

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

the manoeuvrability studied by reputed institutions like Central Water and Power Research Station (CWPRS), Pune.

3. Study alternative site and methodology and also explore the possibilities of using submerged dykes instead of Groynes.
4. A study shall be conducted to identify the location of dredged material dumpsite. The EIA report shall include the coordinates of dumpsite and reclamation.
5. Constant dredging must be carried out in the area in order to prevent silting and a permanent dredger must be provided and data regarding quantity of silt dredged shall be furnished.
6. One of the major environmental issues concerning the project is that sea bed material will be dredged and the disposal mechanism shall be furnished. The characteristics of the dredged materials should be furnished along with the possible adverse impact of the same in the above feasibility study.
7. Within 10km radius all the parameters like air, sediment and biology including coastal ecology should be studied in detail.
8. The impact of dredging should be evaluated in detail with the comprehensive EIA report.
9. The sampling should be done in grid pattern and every one kilometre the samples (air, water, sediment and biological samples) within the 10km of radius.
10. Heavy metal studies in water and sediments shall be conducted.
11. The project proponent shall submit a comprehensive monitoring plan for coastal ecology covering coastal ecosystem and riverine system for both construction and operation period. All physical, chemical and biological parameters including plankton, productivity, benthic fauna and flora, fishery, etc shall be covered in monitoring plan. Monitoring during construction period will be on weekly basis and during the operational period on seasonal basis (4 times in a year, for a minimum of 5years).
12. There should not any damage/ impact on these resources and associated biodiversity. The project proponent shall submit the detailed proposal to

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC-TN

implement mangrove afforestation by involving reputed institution like Annamalai University (Marine Biology Centre) and a detailed plan with budget shall be prepared for Mangrove afforestation and monitoring for a period of minimum 5 years in consultation with the said institution and submit a copy of the same along with the EIA Report. The proponent shall also sign an MoU and submit a copy of the same along with EIA report

13. An impact study on movement of turtles due to the proposed activity shall be conducted by reputed institutions like Annamalai University.
14. Impact of the distortion effects due to the proposed expansion of groynes shall be part of EIA.
15. Impact on the clay deposition shall be studied.
16. The Indian Institute of Technology, Madras – Dept of Ocean Engineering, shall present with data whether there is an increase in sea level or MSL level in EIA report.
17. The PP shall study the effect of construction of groynes on the shoreline in EIA report.
18. The PP shall discuss implication of NGT order in the EIA report.

Agenda No: 377-15

(File No: 9741/2022)

Proposed Rough Stone quarry Lease over an extent of 4.48.5 Ha at S.F.No. 4/3, 4/4 & 6(P) in Kariyasandiram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by M/s. Gunin Infrastructures LLP – For Environmental Clearance. (SIA/TN/MIN/414430/2023 dated 19.01.2023)

The proposal was placed in 377th meeting of SEAC held on 10.02.2023. The details of the project are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project proponent, M/s. Gunin Infrastructures LLP has applied for Environmental Clearance for the proposed rough stone quarry lease over an extent of 4.48.5 Ha at S.F.No. 4/3, 4/4 & 6(P) in Kariyasandiram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.

3. Earlier, the proposal **(SIA/TN/MIN/260999/2022)** was placed for appraisal in 324th meeting of SEAC held on 21.10.2022. Based on the presentation and documents furnished by the project proponent, SEAC noted that the proposed site was hit by G.O(MS) No. 295 dated 03.11.2021. Hence, the SEAC decided not to recommend the proposal.

4. In this 353rd meeting, the proponent gave re-presentation **(SIA/TN/MIN/414430/2023)**.

File No	9741/2023 Online Proposal: Proposal No.SIA/TN/MIN/414430 dated 19.01.2023	Category	1(a) - B2 EC

Sl. No	Salient Features of the Proposal		
1.	Name of the Owner/Firm	:	M/s. Gunin Infrastructures LLP, 5 Balaji Market Opposite, Central Bank, Kamal Chowk, Neemuch, Madhya Pradesh- 458 411.
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Rough Stone
3.	S.F Nos. of the quarry site with area break-up	:	4/3, 4/4 & 6(P)
4.	Village in which situated	:	Kariyasandiram
5.	Taluk in which situated	:	Shoolagiri
6.	District in which situated	:	Krishnagiri
7.	Extent of quarry (in ha.)	:	4.48.5Ha
8.	Latitude & Longitude of all corners of the quarry site	:	12°48'47.2770"N to 12°48'39.1537"N 78°01'17.2051"E to 78°01'12.5059"E
9.	Topo Sheet No.	:	57 L/1
10.	Type of mining	:	Opencast Semi mechanized method
11.	Life of Project	:	5 Years

MEMBER SECRETARY
SEAC -TN

CHAIRMAN,
SEAC- TN

	Lease Period		5 Years	
	Mining Plan Period	:	5 Years	
12.	**Mining Plan Details**	:	**As per approved Mining Plan**	**As per revised plan**
			Rough Stone	
	Geological Resources m^3 (RoM)	:	2691304 m^3	1580110 m^3
	Minable Resources m^3 (RoM)	:	986314 m^3	521965 m^3
	Annual Peak Production in m3	:	986314 m^3	173345 m^3
	Maximum Depth in meters		71 m	51m
13.	Depth of water table	:	82m below ground level	
14.	Man Power requirement per day:	:	23 Nos.	
15.	Water requirement: 1. Drinking water 2. Utilized water 3. Dust suppression 4. Green belt	:	2.5 KLD 1.0KLD 0.5 KLD 1.0KLD	
16.	Power requirement		TNEB 791176 litres of HSD will be utilized	
17.	Precise area communication approved by the Department of G&M.	:	Rc.No.256/2014/Mines dated 30.11.2016	
18.	Mining Plan approved by Department of G&M.	:	Rc.No.1089/2021/Mines dated:29.10.2021	
19.	Department of G&M, Deputy Director500m Cluster Letter		Rc.No.1089/2021/Mines dated:29.10.2021	
20	VAO Certificate Regarding Structures within 300m Radius		Letter Dated: 19.01.2022	
21.	Project Cost (excluding EMP cost)	:	Rs. 1,36,70,000/-	

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

22	**EC Recommendation**		**Validity**	**5 Years subject to the following upper limits.**	
				Rough Stone	**Topsoil**
			Max Total RoM in m^3	521965 m^3	12206 m^3
			Annual Max RoM in m^3	173345 m^3	12206 m^3
			Max Depth in mtrs	51m	
23	EMP cost (in Rs. Lakh).	:	Capital cost – Rs. 3232000/- recurring cost – Rs. 1872500/-		
24	CER cost (in Rs. Lakh).	:	Rs. 10,00,000 /- as accepted by the PP		

Earlier, the proposal **(SIA/TN/MIN/260999/2022)** was placed for appraisal in 324thmeeting of SEAC held on 21.10.2022. Based on the presentation and documents furnished by the project proponent, SEAC noted that the proposed site was hit by G.O(MS) No. 295 dated 03.11.2021. Hence, the SEAC decided not to recommend the proposal.

In the 353rd meeting, the proponent gave re-presentation (**SIA/TN/MIN/414430/2023**).

Description	Old File	New File
File No	9091	9741
Online Proposal No for EC	**SIA/TN/MIN/260999/2022 dated. 10.03.2022**	**(SIA/TN/MIN/414430/2023dated 19.01.2023)**

Based on the presentation and documents furnished by the project proponent, SEAC decided to call for the following details from the project proponent:

i) Since the lease earlier belonged to M/s. Ultra Tech Cements Ltd, the transfer of lease shall be registered and a copy of the same shall be submitted.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

ii) During the presentation, the committee noted that the proponent has proposed a bench height of 7m. As per Metalliferous Mines Regulation 1961, under Chapter XI, 106 (2) (a)

"..... the face shall be benched and the sides shall be sloped at an angle of not more than 60 degrees from the horizontal. The height of any bench shall not exceed six meters and the breadth thereof shall not be less than the height. ....."

Hence the Committee decided that the proponent shall submit a revised mining plan approved by the AD Mines of Geology & Mining Department with revised bench height & width in accordance with MMR 1961.

iii) The PP shall submit the Slope Stability Action Plan for the existing pit conditions.

iv) The proponent shall formulate Environmental Management Cell and shall furnish details on the Environmental Management Policy.

v) The proponent shall revise the CER as suggested and shall furnish details on the same.

Now, the PP had submitted the details as sought by the committee vide lr.dated: 20.03.2023. Hence, the proposal was placed in this 377th Meeting of SEAC held on 10.05.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to **recommend the proposal (as per Sl No. 22) for the grant of Environmental Clearance** subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

1) 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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 ensure that all the statutory competent persons and non-statutory workmen are undergone the 'Initial & Refresher' training accordingly under Mines Vocational Training Rules 1961 in the DGMS approved Group Vocational Training Centre, Salem (or) Trichy before obtaining the CTO from the TNPCB.
6) 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.
7) 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.
8) 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.
9) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
10) 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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

11) 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.

12) 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.

13) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.

14) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.

15) 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.

16) 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.

17) 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.

18) 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

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.

19) 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.

20) **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.

21) 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.

22)However, within six months from the commencement of mining operations after obtaining prior permission from the DMS/Chennai Region, the PP shall carry out the scientific studies on 'Design of Blast parameters for reducing the impact of blast-induced ground/air vibrations and fly rock caused due to operation of the quarry by adopting appropriate controlled blasting techniques', by involving a reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal and Anna University – CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

23)The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.

24)If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.

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

26)The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.

27)The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan& the approved Mine Closure Plan.

28)Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.

29)The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.

30) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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

32) To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.

33) The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.

34) The project proponent shall ensure that the provisions of the MMDR Act, 1957&the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.

35) The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.

36) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.

37) All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

38)That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.

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

40) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

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

42)As accepted by the Project proponent the CER cost is Rs. 10.0 lakhs and the amount shall be spent for the Govt. High School, Mudugurikki Village and Govt. Hr. Sec. School Berigai as committed, before obtaining CTO from TNPCB.

Agenda No: 377- 16

(File No: 9906/2023)

Proposed Rough stone quarry lease over an extent of 4.81.5 Ha in S.F.No: 759/2(P), 761/2(P), 3(P), 762/2, 3, 763/2, 3 of Anjur Village of Pugalur Taluk of Karur District Tamil Nadu by Thiru P. Sampathkumar - For Terms of Reference. (SIA/TN/MIN/421994/2023, Dated: 15.03.2023)

The proposal was placed in this 377th meeting of SEAC held on 10.05.2023. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in). The project proponent made a detailed presentation on

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SEAC -TN

CHAIRMAN
SEAC- TN

the project. **The SEAC noted the following:**

1. The project proponent, Thiru P. Sampathkumar has applied seeking Terms of Reference for EIA study for the Proposed Rough stone quarry lease over an extent of 4.81.5 Ha in S.F.No: 759/2(P), 761/2(P), 3(P), 762/2, 3, 763/2, 3 of Anjur Village of Pugalur Taluk of Karur 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, as amended.
3. The total production for the first 5 years not to exceed 5,54,542 m^3 of Rough stone & 2,880 m^3 of Gravel to the proposed depth of 52m BGL.

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. 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.
2. Detailed study report on flora and fauna in and nearby the quarry site.
3. 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.
4. The PP shall carry out all the required activities as stipulated in the certified compliance for the previous EC obtained and it shall be enumerated with photo & video evidences during the time of 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 PP shall carry out all the required activities as stipulated in the certified compliance for the previous EC obtained and it shall be enumerated with photo & video evidences during the time of EIA appraisal.
7. 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,

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.

8. Since the quarry is existing with a depth of excavation varies from 5 m to 16 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 the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal – Dept of Mining Engg, and Anna University Chennai-CEG Campus, Chennai. The above studies shall spell out the 'Action Plan' for carrying out the realignment of the benches and quarrying operations in a safe & sustainable manner in the proposed quarry lease.**
9. 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.
10. 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.
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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

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

15. 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.

16. 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.

17. 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.

18. 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

CHAIRMAN
SEAC- TN

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

19. 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.
20. 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.
21. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
22. 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.
23. 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.
24. 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.
25. 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.
26. Impact on local transport infrastructure due to the Project should be indicated.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

27. 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.
28. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
29. 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.
30. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
31. The Proponent shall produce/display the EIA report, Executive summery and other related information with respect to public hearing in Tamil Language also.
32. 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.
33. 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.
34. 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

35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
41. 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.
42. 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.
43. The Proponent shall prepare the EMP for the entire life of mine and also furnish

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

the sworn affidavit stating to abide the EMP for the entire life of mine.

44. 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: 377-17
(File No: 8438/2022)
Proposed Rough Stone Quarry lease over an extent of 1.65.5 Ha at S.F.Nos. 81/2A1 & 81/2A2 of Chettipillaiyarnatham Village, Thirumangalam Taluk, Madurai District, Tamil Nadu by Thiru. P. Rajmohan – For Environmental Clearance. (SIA/TN/MIN/ 409724 /2022, dated 04.11.2022)

The proposal was earlier placed in the 350th meeting of SEAC held on 02.02.2023. 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, Thiru. P. Rajmohan has applied seeking Environmental Clearance for the Proposed Rough Stone Quarry lease over an extent of 1.65.5 Ha at S.F.Nos. 81/2A1 & 81/2A2 of Chettipillaiyarnatham Village, Thirumangalam Taluk, Madurai 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, as amended.
3. The production for the five years in total quantity of recoverable as 59,730 cu.m of Rough stone & 28,890 cu.m of Gravel should not exceed for ultimate depth of mining, which is 18m BGL.
4. ToR issued along with Public Hearing vide T.O Lr No.SEIAA-TN/F.No.8438/SEAC/ToR-998/2021 Dated: 28.07.2021
5. Public Hearing minutes dated: 08.12.2022
6. Final EIA report submitted on 23.01.2023

Based on the presentation and the documents furnished by the Proponent, The Committee decided to call for the following additional particulars from the Proponent:

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

1. Copy of registered lease deed of the mine lease area.
2. The EIA coordinator is entrusted with the preparation of detailed action taken report on the queries/remarks raised by the public during public hearing on the proposed project.

The subject was placed in this 377th meeting of SEAC held on 10.05.2023 and the Project Proponent made a presentation on the details sought. The Committee noticed the presence of a factory at about 120m from the proposed mine lease area. Hence the SEAC directed the NABET Consultant to furnish a comprehensive report on the exact location, type of work, total number of employees, time and duration of work, type of building structure & its life, cumulative impact of mining at this cluster on the factory and the people employed there.

On receipt of the details called for the SEAC will deliberate further and decide on future course of action.

AGENDA ITEM No: 377-18
(File No: 9444/2022)
Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 59/1 (Part), 59/3, 60/2 (Part), 60/3(Part), 60/4 (Part), 60/5 (Part), 60/6 (Part), 60/7, 76/2 (Part), 77/1 (Part), 77/2 (Part), 78/4 (Part), 78/8, 78/9, 78/10A (Part), 78/10B, 93/1 (Part), 93/2A, 93/2B, 93/3 (Part), 93/4 (Part), 93/5 (Part), 93/6 in Moongilthurapattu Village, Sankarapuram Taluk, Kallakurichi District by M/s. Kallakurichi-1 Cooperative Sugar Mills Ltd. (KCSM) - For Environmental Clearance. (SIA/TN/IND2/426022/2022, dated 10.05.2023)

The proposal was placed in this 377th meeting of SEAC held on 11.05.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The project proponent gave a detailed presentation. SEAC noted the following:

1. The Proponent, M/s. Kallakurichi-1 Cooperative Sugar Mills Ltd. (KCSM) has applied for Environmental Clearance for the proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at Village- Mooongilthuraipattu, Taluk-Sankarapuram, District- Kallakurichi, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 5(g)-Distilleries, "Industrial Projects-2" of the Schedule to the EIA Notification, 2006,

as amended.

3. ToR issued vide T.O. Lr. No. SEIAA/F.No.9444/5(g)/ToR-1272/2022 dated 08.10.2022
4. Proposed Production of 60 KLPD or around 6392.56 KL/Annum (22.3 KLPD) from B-Heavy Molasses and 10800 KL/Annum (37.7 KLPD) from Sugar Cane Juice along with 1.5 MW X 1 no capacity Back Pressure Turbine will be installed for captive power plant.
5. Main Product: 60 KLPD (Fuel Grade Ethanol)
    - Ethanol from Cane Juice – 10320 KL/Annum (38 KLPD)
    - Ethanol from B-Heavy Molasses – 5987.8 KL/Annum (22 KLPD)
6. By-product:
    - Liquid CO2 – 8144 TPA
    - Fusel Oil – 27.15 KL/Annum
    - Potash Rich Boiler Ash – 370 TPA
7. Total land requirement - 8.47.0 Ha. (20.94 Acres)
8. The proposed Distillery will operate under "Zero Liquid Discharge"(ZLD) concept.

Based on the presentation and documents furnished by the project proponent, the SEAC noted that the EIA report did not address the additional ToR issued vide T.O. Lr. No. SEIAA/F.No.9444/5(g)/ToR-1272/2022 dated 08.10.2022 and further noticed that the Project Proponent has not furnished the study reports sought by the Committee. Hence the SEAC directed the NABET Consultant to prepare and submit the EIA report in accordance with the ToR issued and to furnish the study reports called for by the Committee. On receipt of the same the Committee will deliberate further and decide on the future course of action.

Agenda No: 377-19
(File No – 9531/2022)
Proposed expansion of existing Groynes at Kovalam Village, Kanniyakumari District, Tamil Nadu by Executive Engineer WRD–for Terms of Reference along with Public Hearing. (SIA/TN/INFRA2/401233/2022, Dated: 24.09.2022)

The proposal was placed in this 345th meeting of SEAC held on 10.01.2023. The Committee noted that the project proponent was absent for the meeting. SEAC decided

to defer the subject to a later date directing the project proponent to furnish the reason for not attending the meeting. 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, Executive Engineer WRD has applied seeking Terms of Reference for preparation of EIA report for the **proposed expansion of existing Groynes** at Kovalam Village, Kanniyakumari District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 7(e) "Ports, Harbours, breakwaters, dredging" of the Schedule to the EIA Notification, 2006 as amended.

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

1. The proponent shall furnish a detailed study report on the existing and proposed groynes in the entire stretch from Enayam Village to Periyanayaki Village, erosion pattern before and after construction of groynes, drift of sea material, material of construction of groynes, its effects, merits and demerits of stone structures and soft groynes, site specific study and implications of the proposed project activity preferably by Department of Ocean Engineering, Indian Institute of Technology, Madras.
2. The proponent shall submit the feasibility report by involving the reputed research institutions such as Indian Institute of Technology, Madras – Dept of Ocean Engineering, on removal of the longstanding & existing groynes which includes the methodology of removal, disposal of waste materials, Cost Benefit Analysis and the environmental impacts during the excavation and checking the manoeuvrability studied by reputed institutions like Central Water and Power Research Station (CWPRS), Pune.
3. Study alternative site and methodology and also explore the possibilities of using submerged dykes instead of Groynes.
4. A study shall be conducted to identify the location of dredged material

dumpsite. The EIA report shall include the coordinates of dumpsite and reclamation.

5. Constant dredging must be carried out in the area in order to prevent silting and a permanent dredger must be provided and data regarding quantity of silt dredged shall be furnished.
6. One of the major environmental issues concerning the project is that sea bed material will be dredged and the disposal mechanism shall be furnished. The characteristics of the dredged materials should be furnished along with the possible adverse impact of the same in the above feasibility study.
7. Within 10km radius all the parameters like air, sediment and biology including coastal ecology should be studied in detail.
8. The impact of dredging should be evaluated in detail with the comprehensive EIA report.
9. The sampling should be done in grid pattern and every one kilometre the samples (air, water, sediment and biological samples) within the 10km of radius.
10. Heavy metal studies in water and sediments shall be conducted.
11. The project proponent shall submit a comprehensive monitoring plan for coastal ecology covering coastal ecosystem and riverine system for both construction and operation period. All physical, chemical and biological parameters including plankton, productivity, benthic fauna and flora, fishery, etc shall be covered in monitoring plan. Monitoring during construction period will be on weekly basis and during the operational period on seasonal basis (4 times in a year, for a minimum of 5years).
12. There should not any damage/ impact on these resources and associated biodiversity. The project proponent shall submit the detailed proposal to implement mangrove afforestation by involving reputed institution like Annamalai University (Marine Biology Centre) and a detailed plan with budget shall be prepared for Mangrove afforestation and monitoring for a period of minimum 5 years in consultation with the said institution and submit a copy of the same along with the EIA Report. The proponent shall

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

also sign an MoU and submit a copy of the same along with EIA report

13. An impact study on movement of turtles due to the proposed activity shall be conducted by reputed institutions like Annamalai University.
14. Impact of the distortion effects due to the proposed expansion of groynes shall be part of EIA.
15. Impact on the clay deposition shall be studied.

Agenda No. 377-20
F.No.9912/2023
SIA/TN/INFRA2/418562/2023

Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. **The environmental clearance is sought for Construction Project at Survey No: 202(pt), 210 (pt), 211(pt), Mambakkam SIPCOT, Mambakkam Village Sriperumpudur Taluk, Kancheepuram District Tamil Nadu by the proponent, M/s Foxconn Hon Hai Technology India Mega Development Private Limited.**
2. M/s Pollucare Engineers India Private Limited is the EIA Consultant for the project.
3. Total plot area of the project is 78310.3 Sq.m and built-up area is 146131.7 Sq.m. respectively.
4. Maximum number of floors will be G+ 9 floors.
5. Salient features of the project as submitted by the project proponent:

PROJECT SUMMARY			
Sl. No.	Description	Total Quantity	Unit
GENERAL			
1	Plot Area	78310.3	SQMT
2	Proposed Built Up Area	146131.7	SQMT
3	Total no of Saleable DU's/Villas	NA	No.
4	No of Building Blocks (Residential + Community facilities)	6 Residential blocks+ Pump Room+ STP+ Security 1+ Security 2	No.

6	Max No of Floors	G+ 9	No.
7	Expected Population (XXX Residential + XXXX Floating)	(18050+180)	No.
8	Total Cost of Project	397.36	CR
9	Project Activity:	Dormitory facility for Female employees of M/s. FOXCONN Industries	
	AREAS		
10	Permissible Ground Coverage Area (xx%)	NA	SQMT
11	Proposed Ground Coverage Area (xx%)	23876.18 (30.48%)	SQMT
13	Proposed FSI Area	148021.53	SQMT
14	Other Non FSI Areas - including basement area etc.	532.48	SQMT
15	Proposed Total Built Up Area	148544.01	SQMT
	WATER		
16	Total Water Requirement	2512	KLD
17	Fresh water requirement	1622	KLD
18	Treated Water Requirement	890	KLD
19	Wastewater Generation	2273	KLD
20	Proposed Capacity of STP	3000	KLD
21	Treated Water Available for Reuse	2090	KLD
22	Treated Water Recycled	Toilet flushing-813 Green belt development- 77 B block factory Cooling Tower-480	KLD
23	Surplus treated water to be discharged in Municipal Sewer with Prior permission, if any	720	KLD

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

RAINWATER HARVESTING			
24	Rainwater Harvesting - Recharge Pits	2	No.
25	Rainwater Harvesting Sump Capacity	483 x 2=966	m^3
PARKING			
25	Total Parking Required as / Building Bye Laws	160	ECS
26	Proposed Total Parking	246 Two-Wheeler Parking 5 Bus parking 5 Car Parking	ECS
27	Parking in Basements (Surface)	710.7 Sq.m	ECS
GREEN AREA			
28	Proposed Green Area (Minimum 15.0% of plot area)	22184.76 (28.33%)	SQMT
	Total area	78,310.3	
	Existing trees on plot	NA	
	Number of trees to be planted	3315	
SOLID WASTE MANAGEMENT			
29	Total Solid Waste Generation	8.12	TPD
30	Organic waste	4.87	TPD
31	Mode of Treatment & Disposal	Proposed to send to Ourland Engineering Works Pvt. Ltd	TPD
32	Quantity of Sludge Generated from STP & Disposal	0.7 -Manure for Greenbelt	KG/DAY
POWER / GREEN POWER			
34	Total Power Requirement	10.845.7	KW
35	DG set backup	1000, 1500	KVA

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

36	No of DG Sets	2	No.
37	Solar Panels – Roof Coverage	50%	%
38	Hot Water Requirement	80L/day/person	
	Of which met by Solar Panels	50%	

Population details:

POPULATION			
Residential	DU'S	POP/DU	TOTAL POPULATION
Total Saleable Du's			18230
Total			18230
Non Residential			
Facility Management Staff	50		
Visitors	150		
Residential	18000+50	xx% of Residential Population	
Total Visitors	150		
Total Population	18230		

6. The project proposal falls under Category–8(a) of EIA Notification, 2006 (as amended).

RECOMMENDATION OF THE COMMITTEE

The Committee discussed the matter and recommended grant of environmental clearance for the project proposal as above along with standard environmental clearance conditions prescribed by MoEF&CC, GoI and following additional conditions:

Additional Conditions:

1. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

2. STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.
3. The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. 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 period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.
4. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.
5. Project proponent should ensure that there will be no use of "Single use of Plastic" (SUP).
6. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.
7. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.
8. Project proponent should invest the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of environment.
9. Proponent should submit the certified compliance report of previous/present EC along with action taken report to the Regional office MoEF Lko/Director of Environment and other concerning authority regularly.
10. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.

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SEAC- TN

11. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.

12. The proponent should provide the MoU with STPs' owner/concerned department for getting the STPs treated water for construction use.

Standard Environmental Clearance Conditions prescribed by MoEF&CC:

1. Statutory Compliance:

1. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
3. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
4. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department and Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
10. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

2. **Air quality monitoring and preservation:**
   1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
   2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
   3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 andPM25) covering upwind and downwind directions during the construction period.
   4. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
   5. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
   6. Wet jet shall be provided for grinding and stone cutting.
   7. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
   8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

9. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise mission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
11. For indoor air quality the ventilation provisions as per National Building Code of India.

3. **Water Quality Monitoring and Preservation:**

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rainwater.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total freshwater use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

6. At least 20% of the open spaces as required by the local building byelaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rainwater harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up darea and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharges should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

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16. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, not related water shall be disposed into municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odor problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Centre Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. **Noise Monitoring and Prevention:**
   1. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

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2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of sixmonthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

5. **Energy Conservation Measures:**
   1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
   2. Outdoor and common area lighting shall be LED.
   3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
   4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
   5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building byelaws requirement, whichever is higher.
   6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building byelaws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

6. **Waste Management :**

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1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended from time to time. Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

7. **Green Cover:**

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1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
3. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

8. **Transport:**
    1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
        a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
        b. Traffic calming measures.
        c. Proper design of entry and exit points.
        d. Parking norms as per local regulation.
    2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to

applicable air and noise emission standards be operated only during non-peak hours.

3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

9. **Human Health Issues:**
    1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
    2. For indoor air quality the ventilation provisions as per National Building Code of India.
    3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
    4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
    5. Occupational health surveillance of the workers shall be done on a regular basis.
    6. A First Aid Room shall be provided in the project both during construction and operations of the project.
10. **Corporate Environment Responsibility:**

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of sixmonthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Half Yearly Compliance Report (HYCR).

11. **Miscellaneous:**

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in Tamil language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

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SEAC-TN

3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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SEAC- TN

13. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
15. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
16. As accepted by the Project Proponent the CER cost is **Rs.1.2 crore** and the amount shall be spent for the committed activities before obtaining CTO from TNPCB.

Agenda No: 377- 21
File No: 9900/2023
Proposed Construction of High-Rise Building for Residential Development at Old Door No.17, New Door No.3, Subdivision Plot No. Part B, Arunachalam Road bearing T.S.No 131/1, 131/2 part & 132 part Block 40, Saligramam Village, Mambalam Taluk, Chennai District, Tamil Nadu by M/s. Krishna Constructions Chennai Pvt Ltd - For Environmental Clearance. (SIA/TN/INFRA2/421579/2023, dated 10.03.2023)

The proposal was placed in 377th SEAC meeting held on 10.05.2023. 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. Krishna Constructions Chennai Pvt Ltd has applied for Environmental Clearance for the Proposed Construction of High-Rise Building for Residential Development at Old Door No.17, New Door No.3, Subdivision Plot No. Part B, Arunachalam Road bearing T.S.No 131/1, 131/2 part & 132 part Block 40, Saligramam Village, Mambalam Taluk, Chennai District, Tamil Nadu.
2. The project/activity is covered under Category "B" of item 8(a) 'Building &

Construction" of the Schedule to the EIA Notification, 2006.

3. Total land area is 4,824.216 Sq.m & the total built-up area is 24,115.064 Sq.m.

Now, the proposal was placed in the 377th SEAC meeting held on 10.05.2023. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. **The environmental clearance is sought Construction of High-Rise Building for Residential Development at Old Door No.17, New Door No.3, Subdivision Plot No. Part B, Arunachalam Road bearing T.S.No 131/1, 131/2 part & 132 part Block 40, Saligramam Village, Mambalam Taluk, Chennai District, Tamilnadu by the M/s Krishna Constructions Chennai Pvt Ltd**
2. M/s Ecotech Labs Private Limited is the EIA Consultant for the project.
3. Total plot area of the project is **4824.216**m2 and built-up area is **24,115.064** m2 respectively.
4. Maximum number of floors will be **Stilt Floor (Parking) + 1st Floor (Parking)+ 2nd Floor to 12th Floor + 13th Floor (Part) Gym and Association Room** and maximum height of the building will be 42 m.
5. Total Saleable DU's (dwelling units) is **110 Numbers.**

Salient features of the project as submitted by the project proponent:

PROJECT SUMMARY			
Sl. No.	Description	Total Quantity	Unit
GENERAL			
1	Plot Area	**4824.216 Sqm**	SQMT
2	Proposed Built Up Area	**24,115.064 Sqm.**	SQMT
3	Total no of Saleable DU's/Villas	110	No.
4	Max Height - (Height of tallest block)	42	M
5	No of Building Blocks (Residential + Community facilities)	1	
6	Max No of Floors	13	No.
7	Expected Population (660 Residential + 66 Visitors and 7 maintenance staff)	733	No.

8	Total Cost of Project	119.72	CR
9	Location	13°2'59.80"N & 80°12'11.94"E	
10	Project Activity :	Construction of High-Rise Building for Residential Development in Old Door No.17, New Door No.3, Subdivision Plot No. Part B, Arunachalam Road bearing T.S.No 131/1, 131/2 part & 132 part, Block 40, Saligramam Village, Mambalam Taluk, Chennai District, Tamilnadu	
AREAS			
10	Permissible Ground Coverage Area (50%)		SQMT
11	Proposed Ground Coverage Area (44.8%)	2162.160	SQMT
12	Permissible FSI Area (xxx)	23648.517	SQMT
13	Proposed FSI Area	18232.88	SQMT
14	Other Non FSI Areas - including basement area etc.	5882.184	SQMT
15	Proposed Total Built Up Area	24115.064	SQMT
WATER			
16	Total Water Requirement	93	KLD
17	Fresh water requirement	60	KLD
18	Treated Water Requirement	33	KLD
19	Wastewater Generation	85	KLD
20	Proposed Capacity of STP	90	KLD
21	Treated Water Available for Reuse	0	KLD
22	Treated Water Recycled	33	KLD

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23	Surplus treated water to be discharged in Municipal Sewer with Prior permission, if any	48	KLD
	RAINWATER HARVESTING		
24	Rainwater Harvesting - Recharge Pits	25	No.
25	Rainwater Harvesting Sump Capacity	50	M^3
	PARKING		
25	Total Parking Required as / Building Bye Laws	121	ECS
26	Proposed Total Parking	122	ECS
27	Parking in Basements	0	ECS
	GREEN AREA		
28	Proposed Green Area (Minimum 15.0% of plot area)	729.026	SQMT
	Total area	4824.216	
	Existing trees on plot	8 (retained on periphery)	nos
	Number of trees to be planted	80	nos
	Number of trees to be transplanted/cut	0	
	SOLID WASTE MANAGEMENT		
29	Total Solid Waste Generation	0.347	TPD
30	Organic waste	0.139	TPD
31	Mode of Treatment & Disposal	Will be treated in Organic Waste Converter and used as manure for gardening.	TPD
32	Quantity of Sludge Generated from STP & Disposal	21	KG/DAY
33	Quantity of E-Waste Generation & Disposal	0	KG/DAY

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34	Quantity of Hazardous waste Generation & Disposal	0	LPD
	POWER / GREEN POWER		
34	Total Power Requirement	1224.124 KVA	KW
35	DG set backup	1 No x 320 KVA	KVA
36	No of DG Sets	1	No.
37	Solar Panels – Roof Coverage	50	%
38	Hot Water Requirement	1.8	KLD
	Of which met by Solar Panels		
	EMP COST		
39	Construction Phase: Capital /cost O & M Cost (Per Annum)	 12 5	 Lakhs Lakhs
40	Operation Phase: Capital Cost Recurring Cost	 157.49 22.5	 Lakhs Lakhs
	CER COST		

S. No.	Beneficiary	CER Activity	Capital cost Allocation (in Lakhs)
Provision of Infrastructure & sanitation facilities such as Hygienic Toilets facilities, Classroom flooring, Furniture's, Environmental awareness books for students in library, Greenbelt development including maintenance of trees for			
1	Government ADW Boys High School, KK Nagar (0.9 km, S)		35
2	Government Higher Secondary School, West Mambalam (1.5 km, SE)		35
3	Government Girls Higher Secondary School, KK Nagar (1.4 km, S)		30
Total Cost Allocation			**100**

Population details:

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POPULATION			
Residential	DU'S	POP/DU	TOTAL POPULATION
Total Saleable Du's	110		733
Total	110		733
Non Residential	-	-	-
CLUB house (Employees etc.)	-	-	-
Club	-	-	-
Commercial	-	-	-
Facility Management Staff	-	-	-
Total	-	-	-
Visitors	66		
Residential	660	xx% of Residential Population	
Club/Community Hall	0	xx% of Residential Population	
(Maintenance Staff)	7		
Total Visitors	66		
Total Population	733		

6. The project proposal falls under Category–8(a) of EIA Notification, 2006 (as amended).

RECOMMENDATION OF THE COMMITTEE

The Committee discussed the matter and recommended grant of environmental clearance for the project proposal as above along with standard environmental clearance conditions prescribed by MoEF&CC, GoI and following additional conditions:

Additional Conditions:

1. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.

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2. STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.
3. The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. 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 period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.
4. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.
5. Project proponent should ensure that there will be no use of "Single use of Plastic" (SUP).
6. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.
7. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.
8. Project proponent should invest the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of environment.
9. Proponent should submit the certified compliance report of previous/present EC along with action taken report to the Regional office MoEF Lko/Director of Environment and other concerning authority regularly.
10. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

11. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.
12. The proponent should provide the MoU with STPs' owner/concerned department for getting the STPs treated water for construction use.

Standard Environmental Clearance Conditions prescribed by MoEF&CC:

1.Statutory Compliance:

a. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
b. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
c. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for nonforest purpose involved in the project.
d. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
e. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
f. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
g. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
h. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department and Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

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SEAC -TN

CHAIRMAN
SEAC- TN

i. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

j. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

2. **Air quality monitoring and preservation:**

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 andPM25) covering upwind and downwind directions during the construction period.
4. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
5. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
6. Wet jet shall be provided for grinding and stone cutting.
7. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

9. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise mission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
11. For indoor air quality the ventilation provisions as per National Building Code of India.

3. **Water Quality Monitoring and Preservation:**

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rainwater.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total freshwater use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

6. At least 20% of the open spaces as required by the local building byelaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rainwater harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up darea and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharges should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

16. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, not related water shall be disposed into municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odor problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Centre Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. **Noise Monitoring and Prevention:**
   1. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of sixmonthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

5. **Energy Conservation Measures:**
   1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
   2. Outdoor and common area lighting shall be LED.
   3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
   4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
   5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building byelaws requirement, whichever is higher.
   6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building byelaws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

6. **Waste Management:**

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended from time to time. Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

7. **Green Cover:**

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
3. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

8. **Transport:**
    1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
        a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
        b. Traffic calming measures.
        c. Proper design of entry and exit points.
        d. Parking norms as per local regulation.
    2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to

applicable air and noise emission standards be operated only during non-peak hours.

3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

9. **Human Health Issues:**
    1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
    2. For indoor air quality the ventilation provisions as per National Building Code of India.
    3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
    4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
    5. Occupational health surveillance of the workers shall be done on a regular basis.
    6. A First Aid Room shall be provided in the project both during construction and operations of the project.
10. **Corporate Environment Responsibility:**

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Half Yearly Compliance Report (HYCR).

11. **Miscellaneous:**

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in Tamil language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

13. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
15. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 377 - 22
(File No. 9907/2023)
Proposed Rough Stone quarry over an extent of 3.00.0 Ha in S.F.No. 288(P) of Venkateshapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by M/s. Sumuka Blue Metals & M.Sand for Terms of Reference. (SIA/TN/MIN/421319/2023, dated: 10.03.2023)

The proposal was placed in this 377th Meeting of SEAC held on 10.05.2023. 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. Sumuka Blue Metals & M-Sand has applied for Terms of Reference for the Proposed Rough Stone quarry over an extent of 3.00.0 Ha in S.F.No. 288(P) of Venkateshapuram 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 5 years. The mining plan is for 5 years & production should not exceed 5,81,518m³ of Rough Stone. The annual peak production 1,72,549m³ of Rough Stone. The ultimate depth of mining is

shown as 62m (20m AGL + 42m BGL).

4. Earlier the proponent had applied for Terms of Reference vide F.No. 9022 - SIA/TN/MIN/72425/2022 Dated: 22/02/2022. Subsequently, the proposal was placed in 273rd SEAC meeting held on 14.05.2022. Based on the presentation and documents furnished by the project proponent, SEAC noted that in G.O(MS) No. 295 dated 03.11.2021 the Government in Industries Department has notified the following Rules specifying certain conditions for permitting mining activities near ecologically sensitive areas.

   " *...No quarrying or mining or crushing activities shall be carried out within one kilometer radial distance or the protective distance as notified by the Ministry of Environment, Forest and Climate Change, Government of India from time to time, whichever is more, from the boundaries of ecologically sensitive areas, environmentally and ecologically sensitive protected areas such as the National parks, Wild life Sanctuaries, Tiger Reserves, Elephant corridors and Reserve Forests*".

   The Committee noted that the Athimugam –II & Barigai Extn Reserve Forest are located within a distance of 1 km from this project site and the proposal is, therefore, hit by the above G.O. The Committee, therefore, decided not to recommend the proposal.

5. Subsequently, the proposal was placed in 518th SEIAA meeting held on 06.06.2022. In view of the above, the authority accepted the decision of SEAC and decided to request the Member Secretary, SEIAA to communicate the SEAC minutes to the project proponent held on 14.05.2022.

6. "As per the G.O. (Ms.) No. 243 industries, Investment promotion and Commerce (MMC.1) Department dated 14.12.2022, Amendment to the Tamil Nadu Minor Mineral Concession Rules, 1959 as follows,

   "In the said rules, in rule 36, in Sub-rule (1-A), in Clause(e) for the expression "the National Parks, Wild Life Sanctuaries, Tiger Reserves, Elephant Corridors and Reserve Forests", the expression "National Parks, Wild Life Sanctuaries, Tiger Reserves, Elephant Corridors" shall be substituted".

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SEAC -TN

CHAIRMAN
SEAC- TN

7. As per the approved mining plan, the proponent had proposed 7m bench. SEAC directed the proponent to revise the benches and quantity correspondingly and decided to recommend for the revised benches and quantity as follows

YEARWISE DEVELOPMENT AND PRODUCTION as per approved mining plan									
YEAR	Section	Bench	L(m)	W (m)	D (m)	Volume In M3	Reserves in m3 @ 95%	Mine waste in m3 @ 5%	Top Soil in m3
I-YEAR	XY-EF	I	39	38	2				2964
		II	18	39	7	4914	4668	246	
		III	49	39	7	13377	12708	669	
	X1Y1-AB	II	22	17	4	1496	1421	75	
		III	31	25	7	5425	5154	271	
		IV	32	30	7	6720	6384	336	
	X2Y2-AB	II	20	34	3	2040	1938	102	
		III	30	69	7	14490	13766	724	
		IV	43	69	7	20769	19731	1038	
		V	45	69	7	21735	20648	1087	
	TOTAL					**90966**	**86418**	**4548**	**2964**
II-YEAR	XY-EF	IV	51	40	7	14280	13566	714	
	X1Y1-AB	V	34	36	7	8568	8140	428	
	X2Y2-AB	VI	51	69	7	24633	23401	1232	
	TOTAL					**47481**	**45107**	**2374**	
III-YEAR	XY-EF	V	54	41	7	15498	14723	775	
		VI	58	42	7	17052	16199	853	

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

	X1Y1-AB	VI	33	41	7	9471	8997	474	
		VII	38	46	7	12236	11624	612	
	X2Y2-AB	VII	53	69	7	25599	24319	1280	
		VIII	54	69	7	26082	24778	1304	
	X1Y1-CD	VIII	30	74	7	15540	14763	777	
	TOTAL					**121478**	**115403**	**6075**	
IV-YEAR	XY-EF	VII	75	66	7	34650	32918	1732	
	X1Y1-AB	VIII	33	68	7	15708	14923	785	
	X2Y2-AB	IX	49	69	7	23667	22484	1183	
	X1Y1-CD	IX	72	74	7	37296	35431	1865	
	X2Y2-CD	IX	70	66	7	32340	30723	1617	
	X1Y1-EF	IX	48	50	7	16800	15960	840	
	X2Y2-EF	IX	48	63	7	21168	20110	1058	
	TOTAL					**181629**	**172549**	**9080**	
V-YEAR	XY-EF	VIII	70	66	7	32340	30723	1617	
	X1Y1-AB	IX	28	68	7	13328	12662	666	
	X2Y2-AB	X	44	69	7	21252	20189	1063	
	X1Y1-CD	X	72	74	7	37296	35431	1865	
	X2Y2-CD	X	70	66	7	32340	30723	1617	

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

	X1Y1-EF	X	43	50	7	15050	14298	752	
	X2Y2-EF	X	43	63	7	18963	18015	948	
	TOTAL					**170569**	**162041**	**8528**	
	GRAND TOTAL					**612123**	**581518**	**30605**	**2964**

Revised section

YEARWISE DEVELOPMENT AND PRODUCTION RESERVES								
Section	Bench	L (m)	W (m)	D (m)	Volume In M3	Mineable Roughston e Reserves in m3 @ 95%	Mine waste in m3 @ 5%	Top Soil in m3
XY-EF	I	39	38	2				2964
	III	15	23	5	1725	1639	86	
	IV	18	39	5	3510	3335	175	
	V	34	31	5	5270	5007	263	
	VI	28	27	5	3780	3591	189	
	VII	24	22	5	2640	2508	132	
	VIII	20	18	5	1800	1710	90	
	IX	16	14	5	1120	1064	56	
	X	12	9	5	540	513	27	
	XI	22	28	5	3080	2926	154	
	XII	12	23	5	1380	1311	69	
TOTAL					**24845**	**23604**	**1241**	**2964**
X1Y1-AB	III	24	19	5	2280	2166	114	
	IV	31	25	5	3875	3681	194	
	V	30	29	5	4350	4133	217	
	VI	30	33	5	4950	4703	247	
	VII	29	36	5	5220	4959	261	
	VIII	28	40	5	5600	5320	280	
	IX	25	44	5	5500	5225	275	
	X	28	47	5	6580	6251	329	
	XI	23	56	5	6440	6118	322	
	XII	18	51	5	4590	4361	229	
TOTAL					**49385**	**46917**	**2468**	
	X	35	1	5	175	166	9	

X1Y1-CD	XI	72	66	5	23760	22572	1188	
	XII	72	61	5	21960	20862	1098	
TOTAL					**45895**	**43600**	**2295**	
X1Y1-EF	XI	48	50	5	12000	11400	600	
	XII	43	50	5	10750	10213	537	
TOTAL					**22750**	**21613**	**1137**	
X2Y2-AB	II	24	1	5	120	114	6	
	III	35	1	5	175	166	9	
	IV	43	21	5	4515	4289	226	
	V	42	54	5	11340	10773	567	
	VI	45	49	5	11025	10474	551	
	VII	47	44	5	10340	9823	517	
	VIII	47	39	5	9165	8707	458	
	IX	46	34	5	7820	7429	391	
	X	44	29	5	6380	6061	319	
	XI	39	24	5	4680	4446	234	
	XII	34	19	5	3230	3069	161	
TOTAL					**68790**	**65351**	**3439**	
X2Y2-CD	X	11	6	5	330	314	16	
	XI	70	51	5	17850	16958	892	
	XII	70	46	5	16100	15295	805	
TOTAL					**34280**	**32567**	**1713**	
X2Y2-EF	X	1	12	3	36	34	2	
	XI	48	48	5	11520	10944	576	
	XII	43	43	5	9245	8783	462	
TOTAL					**20801**	**19761**	**1040**	
GRAND TOTAL					**266746**	**253413**	**13333**	**2964**

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

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SEAC -TN

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 details regarding the nature of blasting activity which will be carried out.
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 13 m to 29 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 the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM - Bengaluru, IIT-Madras, NIT Surathkal – Dept of Mining Engg, and Anna University Chennai-CEG Campus, Chennai. The above studies shall spell out the 'Action Plan' for carrying out the realignment of the benches and quarrying operations in a safe & sustainable manner in the proposed quarry lease.**

11. **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.

12. Details of Green belt & fencing shall be included in the EIA Report.
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 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 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.
20. 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.
21. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
22. 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.
23. 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.
24. 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

25. 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.
26. Impact on local transport infrastructure due to the Project should be indicated.
27. 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.
28. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
29. 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.
30. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
31. The PP shall produce/display the EIA report, Executive summery and other related information with respect to public hearing in Tamil Language also.
32. 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.
33. 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.
34. 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

35. 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.

36. 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.

37. 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.

38. 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.

39. 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.

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

41. 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.

42. 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

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SEAC -TN

CHAIRMAN
SEAC- TN

which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

43. 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.

44. 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. 377 - 23
(File No. 8649/2023)
Proposed Rough Stone & Gravel quarry over an extent of 6.78.5 Ha in S.F. Nos. 255/2A, 256/8A, 8B, 9, 10A, 10B, 257/3A & 3B of Chettikurichi Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu by M/s. Shree Selvi Chambers for Environmental Clearance. (SIA/TN/MIN/423810/2023, dated: 29.03.2023)

The proposal was placed in this 377th Meeting of SEAC held on 10.05.2023. 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. Shree Selvi Chambers has applied for Environmental Clearance for the Proposed Rough Stone & Gravel quarry over an extent of 6.78.5 Ha in S.F. Nos. 255/2A, 256/8A, 8B, 9, 10A, 10B, 257/3A & 3B of Chettikurichi Village, Kayathar Taluk, Thoothukudi 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 10,32,730m³ of Rough Stone & 75,656m³ of Gravel. The annual peak production 2,15,860m³ of Rough Stone & 52,704m³ of Gravel. The ultimate depth of mining is 37m BGL.
4. Earlier the proponent had obtained ToR vide F.No. 6649 (Online number - SIA/TN/MIN/75862/2018 Dated: 19/07/2018). Subsequently, based on the representation received from the proponent dated: 04.04.2019, the proposal had been again placed in 344th SEIAA meeting dated: 10.05.2019

"The project proponent vide letter dated 04.04.2019 has informed that due to administrative reason and finance crisis, they could not operate the proposed Rough stone and gravel quarry so withdraw proposal requested.

Hence, the Authority decided to withdraw the Terms of reference (ToR) issued to M/s. Shree Selvi Chambers for quarrying of Rough stone and Gravel over an Extent of 6.78.5Ha in S.F.No. 255/2A, 256/8A, 8B, 9, 10A, 10B, 257/3A & 3B at Chettikurichi Village of Kayathar Taluk, Thoothukudi District, Tamil Nadu vide Lr No.SEIAA-TN/F.No.6649/2018/TOR- 615/2019, Dated: 03.04.2019'

5. Subsequently, the proponent had obtained vide Lr. No. SEIAA-TN/F.No.8649/SEAC/ToR-1075/2021, Dated: 01.03.2022.
6. Public hearing was conducted on 23.02.2023.

File No	8649 Online number - 423810/2023	Category	B2 1(a)

Sl. No	Salient Features of the Proposal		
1.	Name of the Owner/Firm	:	M/s. Shree Selvi Chambers, Panjapatti Privu, Sukkampatti Via, Theppakulathupatti, Dindigul District - 624 709.
2.	Type of quarrying (Ordinary Stone/Sand/Granite/ Limestone)	:	Rough stone and Gravel
3.	S.F Nos. of the quarry site with area break-up	:	255/2A, 256/8A, 8B, 9, 10A, 10B, 257/3A & 3B
4.	Village in which situated	:	Chettikurichi
5.	Taluk in which situated	:	Kayathar
6.	District in which situated	:	Thoothukudi
7.	Extent of quarry (in ha.)	:	6.78.5Ha (Patta Land)
8.	Latitude & Longitude of all corners of the quarry site	:	09°03'27.49"N to 09°03'14.33"N 77°44'05.63"E to 77°43'51.48"E
9.	Topo Sheet No.	:	57- G/12
10.	Type of mining	:	Opencast 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	As modified by SEAC
	Geological Resources m^3 (RoM)	:	Rough stone	Rough stone
			21,38,780m^3	
			Gravel	Gravel
			1,22,216m^3	
	Minable Resources m^3 (RoM)	:	Rough stone	Rough stone
			10,32,730m^3	
			Gravel	Gravel
			75,656 m^3	
	Annual Peak Production in m^3	:	Rough stone	Gravel
			2,15,860m^3	
			Gravel	
			52,704m^3	
	Maximum Depth in meters	:	37m [2m Gravel + 35m Rough stone]	
13.	Depth of water table	:	40m-45m BGL	
14.	Man Power requirement per day:	:	35 Nos	
15.	Water requirement: 1. Drinking water 2. Dust suppression 3. Green belt	:	3.5 KLD 0.7 KLD 1.3 KLD 1.5 KLD	
16.	Power requirement	:	TNEB	
17.	Precise area communication approved by the District Collector, Department of G&M.	:	Rc. No. 236/G&M/2018, Dated: 06.07.2018	
18.	Mining Plan approved by Assistant Director, Department of G&M.	:	Rc.No. 236/G&M/2018, Dated: 16.07.2018	
19.	Department of G&M, Deputy Director, 500m Cluster Letter	:	Rc.No. 236/G&M/2018, Dated: 07.07.2021	
20.	VAO Certificate Regarding Structures within 300m Radius	:	Letter Dated: 06.07.2021	

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SEAC -TN

CHAIRMAN
SEAC- TN

21.	Project Cost (excluding EMP cost)	:	Rs. 89,69,540		
22.	EC Recommendation	:	Validity	30 years (or) max. period as determined by the competent authority subject to the following upper limits.	
				Rough Stone	Gravel
		:	Max Total RoM in m^3	10,32,730m^3	75,656 m^3
		:	Annual Max RoM in m^3	2,15,860m^3	52,704 m^3
		:	Max Depth in mtrs	35m	2m
23.	EMP cost (in Rs. Lakh).	:	Capital Cost – Rs. 53,21,950 Recurring Cost – Rs. 41,12,868		
24.	CER cost (in Rs. Lakh).	:	Rs. 10,00,000		
25.	ToR Issued Details	:	Lr.No.SEIAA–TN/F.No.8649/SEAC/ToR-1075/2021, Dated: 01.03.2022.		
26.	Public Hearing Date	:	23.02.2023.		
27.	EIA Report submitted	:	03.04.2023.		

Based on the presentation & documents furnished, SEAC decided to recommend the proposal for the grant of Environmental Clearance **for the production of** 10,32,730 m3 of rough stone & 75,656m3 of Gravel and annual peak production 2,15,860 m^3 of Rough Stone and 52,704 $m^3$of Gravel with ultimate depth of 37m BGL 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

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SEAC -TN

CHAIRMAN
SEAC- TN

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 mine manager and other statutory competent persons such as blaster (or) mine mate shall be appointed as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961 before the obtaining the CTO from the DEE/TNPCB.
3. The proponent shall maintain the 'S3 (or) G2' type of fencing all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
4. The PP shall inform the 'Notice of Opening' of the quarry to the Director of Mines Safety/Chennai Region before obtaining the CTO.
5. The PP shall ensure that all the statutory competent persons and non-statutory workmen are undergone the 'Refresher' training under Mines Vocational Training Rules 1961 in DGMS approved Group Vocational Training Centre, Pandalgudi (or) Trichy.
6. The Project Proponent (PP) shall submit a 'Slope stability action plan' incorporating the development activities from west to east direction keeping the benches intact for the proposed quarry lease after it is duly vetted by the concerned AD (Mines) before obtaining CTO from TNPCB.
7. 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 working touches 30 m (or) after the completion of 3 years of operation whichever is earlier, by involving a reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University 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.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

8. Further, the PP shall maintain the garland drain with proper size, gradient and length along the boundary of the pit leaving behind the mandatory safety zone of 7.5 / 10 m as it is designed to take care of run-off water (size, gradient and length) before obtaining the CTO from TNPCB.
9. In the meanwhile, within six months from the commencement of quarrying operations, the PP shall consult and obtain necessary permission from the DMS, Chennai Region for the extraction of common boundary existing adjacent to the neighbouring quarry considering the safety aspects.
10. The PP shall ensure that the benches & haul road are properly designed and formed in accordance with the provisions of MMR 1991.
11. The PP shall carry out maximum of TWO rounds of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 300 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting. The PP shall also ensure that the blasting operation shall be carried out once in 2 days to reduce the environmental impacts effectively.
12. However, within one year from the commencement of mining operations, the PP shall carry out the scientific studies on 'Design of Blast parameters for reducing the impact of blast-induced ground/air vibrations and fly rock caused due to operation of the quarry by adopting appropriate controlled blasting techniques', by involving a reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research (CIMFR) / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal and Anna University – CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance.
13. No 'Deep-hole large diameter drilling and blasting' is permitted in the proposed quarry.

MEMBER SECRETARY
SEAC -TN

CHAIRMAN
SEAC- TN

14. 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.
15. 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.
16. 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.
17. Within six months of the commencement of quarrying operations and also once in two years , the PP shall carry out the comprehensive hydrogeological studies to monitor the quality & quantity of the ground water due to impacts of quarrying operation by involving any of the reputed Research and Academic Institution such as CSIR-Central Institute of Mining and Fuel Research / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, Anna University Chennai-Dept of Geology, CEG Campus, and University of Madras -Dept of Applied Geology, Chennai etc shall be carried out before the commencement of mining operations. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, and DMS, Chennai as a part of Environmental Compliance.
18. The PP shall meticulously carry out the mitigation measures as spelt out in the revised EMP.
19. The Project Proponent shall ensure that the funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to the MoEF& CC Ministry and its Integrated Regional Office (IRO) located in Chennai.

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SEAC- TN

20. The Project Proponent shall send a copy of the clearance letter marked to concerned Panchayat from whom any suggestion/representation has been received while processing the proposal.
21. 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 EMP furnished.
22. As accepted by the Project proponent the CER cost is Rs.10 lakhs out of which Rs. 5 Lakhs shall be spent for the Panchayat Union Middle School in Kayathar (south), Kayathar and Rs. 5 Lakhs shall be spent for veerapandi Kattabomman Higher Secondary school as committed, before obtaining CTO from TNPCB.

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

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 compiled 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

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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.

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Appendix -I
List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamil Name
1	*Aegle marmelos*	Vilvam	வில்வம்
2	*Adenaanthera pavonina*	Manjadi	மஞ்சாடி, ஆனைக்குன்றிமணி
3	*Albizia lebbeck*	Vaagai	வாகை
4	*Albizia amara*	Usil	உசில்
5	*Bauhinia purpurea*	Mantharai	மந்தாரை
6	*Bauhinia racemosa*	Aathi	ஆத்தி
7	*Bauhinia tomentos*	Iruvathi	இருவாத்தி
8	*Buchanania axillaris*	Kattuma	காட்டுமா
9	*Borassus flabellifer*	Panai	பனை
10	*Butea monosperma*	Murukkamaram	முருக்கமரம்
11	*Bobax ceiba*	Ilavu, Sevvilavu	இலவு
12	*Calophyllum inophyllum*	Punnai	புன்னை
13	*Cassia fistula*	Sarakondrai	சரக்கொன்றை
14	*Cassia roxburghii*	Sengondrai	செங்கொன்றை
15	*Chloroxylon sweitenia*	Purasamaram	புரசு மரம்
16	*Cochlospermum religiosum*	Kongu, Manjalllavu	கோங்கு, மஞ்சள் இலவு
17	*Cordia dichotoma*	Naruvuli	நருவிலி
18	*Creteva adansoni*	Mavalingum	மாவிலங்கம்
19	*Dillenia indica*	Uva, Uzha	உசா
20	*Dillenia pentagyna*	SiruUva, Sitruzha	சிறு உசா
21	*Diospyro sebenum*	Karungali	கருங்காலி
22	*Diospyro schloroxylon*	Vaganai	வாகனை
23	*Ficus amplissima*	Kalltchi	கல் இச்சி
24	*Hibiscus tiliaceou*	Aatrupoovarasu	ஆற்றுப்பூவரசு
25	*Hardwiclia binata*	Aacha	ஆச்சா
26	*Holoptelia integrifolia*	Aayili	ஆயா மரம், ஆயிலி
27	*Lannea coromandelica*	Odhiam	ஓதியம்
28	*Lagerstroemia speciosa*	Poo Marudhu	பூ மருது
29	*Lepisanthus tetraphylla*	Neikottaimaram	நெய் கொட்டை மரம்
30	*Limonia acidissima*	Vila maram	விலா மரம்
31	*Litsea glutinos*	Pisinpattai	அம்பா, பிசின்பட்டை
32	*Madhuca longifolia*	Illuppai	இலுப்பை
33	*Manilkara hexandra*	UlakkaiPaalai	உலக்கை பாலை
34	*Mimusops elengi*	Magizhamaram	மகிழமரம்
35	*Mitragyna parvifolia*	Kadambu	கடம்பு
36	*Morinda pubescens*	Nuna	நுணா
37	*Morinda citrifolia*	Vellai Numa	வெள்ளை நுணா
38	*Phoenix sylvestre*	Eachai	ஈச்சமரம்
39	*Pongamia pinnat*	Pungam	புங்கம்

40	*Premna mollissima*	Munnai	முன்னை
41	*Premna serratifolia*	Narumunnai	நறு முன்னை
42	*Premna tomentosa*	Malaipoovarasu	மலை பூவரசு
43	*Prosopis cinerea*	Vanni maram	வன்னி மரம்
44	*Pterocarpus marsupium*	Vengai	வேங்கை
45	*Pterospermum canescens*	Vennangu, Tada	வெண்ணாங்கு
46	*Pterospermum xylocarpum*	Polavu	பலவு
47	*Puthranjiva roxburghi*	Karipala	கரிபாலை
48	*Salvadora persica*	Ugaa Maram	உகா மரம்
49	*Sapindus emarginatus*	Manipungan, Soapukai	மணிபுங்கன் சோப்புக்காய்
50	*Saraca asoca*	Asoca	அசோகா
51	*Streblus asper*	Piray maram	பிரய் மரம்
52	*Strychnos nuxvomic*	Yetti	எட்டி
53	*Strychnos potatorum*	Therthang Kottai	தேத்தான் கொட்டை
54	*Syzygium cumini*	Naval	நாவல்
55	*Terminalia belleric*	Thandri	தான்றி
56	*Terminalia arjuna*	Ven marudhu	வெள் மருது
57	*Toona ciliate*	Sandhana vembu	சந்தன வேம்பு
58	*Thespesia populnea*	Puvarasu	பூவரசு
59	*Walsuratrifoliata*	valsura	வால்சுரா
60	*Wrightia tinctoria*	Veppalai	வெப்பாலை
61	*Pithecellobium dulce*	Kodukkapuli	கொடுக்காப்புளி

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Appendix –II

Display Board

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

.....சுரங்கம்

சுரங்கங்களில் குவாரி செயல்பாடுகளுக்கான சுற்றுச்சூழல் அனுமதி பிற்கண்ட நிபந்தனைகளுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது SEIAA/——, தேதியிடப்பட்ட சுற்றுச்சூழல் அனுமதி _____தேதி வரை செல்லத்தக்கதாக உள்ளது

பசுமை பகுதி வளர்ச்சி மேம்பாட்டுக்கான சுரங்கத் திட்டம்	குவாரியின் எல்லையைச் சுற்றி வேலி அமைக்க வேண்டும்
	சுரங்கப்பாதையின் ஆழம் தரைமட்டத்திலிருந்து___மீட்டர்கு மிகாமல் இருக்க வேண்டும்
	சுற்றில் மாசு ஏற்படாதவாறு சுரங்க பணிகளை மேற்கொள்ள வேண்டும்.
நடப்பட்டு பராமரிக்கப்படவேண்டிய மரங்கள் எண்ணிக்கை.	வாகனங்கள் செல்லும் பாதையில் மாசு ஏற்படாத அளவிற்கு தண்ணீரை முறையாக தண்ணீர் லாரிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும்.
	இரைச்சல் அளவையும் தூசி மாசுபாட்டையும் குறைப்பதற்காக குவாரியின் எல்லையை சுற்றி அடர்த்தியான பசுமை பகுதியை ஏற்படுத்த வேண்டும்.
சுரங்கத்தில் வெடி வைக்கும்பொழுது நிலநடுக்கங்கள் ஏற்படாதவாறும் மற்றும் சுற்றுச் பறக்காதவாறும் பாதுகாப்பு நடவடிக்கைகளை உள்ளிப்பாக செயல்படுத்தப்பட வேண்டும்	
சுரங்கத்தில் இருந்து ஏற்படும் இரைச்சல் அளவு 85 டெசிபல்ஸ் (dBA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற் கொள்ள வேண்டும்.	
சுரங்க சட்ட விதிகள் 1955ன் கீழ் சுரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்கவதோடு கண்காணிப்பாளர்களை நியமனம் செய்து தர வேண்டும்.	
கிராமம் அல்லது பஞ்சாயத்து வழியாக வாகனங்கள் செல்லும் சாலையை தொடர்ந்து நன்கு பராமரிக்க வேண்டும்.	
சுரங்கப்பணிகளால் அருகில் உள்ள விவசாயப் பணிகள் மற்றும் நீர்நிலைகள் பாதிக்கப்படக் கூடாது.	
நீர்நிலைகள் பாதிக்கப்படாமல் இருப்பதை உறுதி செய்யும் வகையில் நிலத்தடி நீரின் தரத்தினை தொடர்ந்து கண்காணிக்க வேண்டும்.	
சுரங்கத்திலிருந்து கனிம பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் சிரமத்தினையும் ஏற்படுத்தாதவாறு பாதுகாப்போடும் மற்றும் சுற்றுச்சூழல் பாதிக்காத வண்ணம் வாகனங்களை இயக்க வேண்டும்.	
சுரங்கப்பணிகள் முடிக்கப்பட்டவுடன் சுரங்க மூடல் திட்டத்தில் உள்ளவாறு சுரங்கத்தினை மூட வேண்டும்.	
சுரங்க நடவடிக்கைகளை முடித்தபின்னர் சுரங்கப் பகுதி மற்றும் சுரங்க நடவடிக்கைகளால் இடையூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுசுழற்சுமாறம் செய்து தாவரங்கள் விலங்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் பசுமைப்பகுதியை உருவாக்க வேண்டும்.	
முழுமையான நிபந்தனைகளை அறிய பார்வேற்ற (http://parivesh.nic.in) என்கிற இணையதளத்தைப் பார்வையிடவும் மேலும் எந்தவித சுற்றுச்சூழல் சார்ந்த புகார்களுக்கு சென்னையில் உள்ள சுற்றுச்சூழல் மற்றும் வன அமைச்சகத்தின் ஒருங்கிணைந்த மண்டல அலுவலகம்: 044 – 28222325 (அல்லது) தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் மாவட்ட சுற்றுச்சூழல் பொறியாளரை அணுகவும்	

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