



Validity expires on 7.10.2026

## **PROCEEDINGS OF THE STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY – KERALA, THIRUVANANTHAPURAM**

*(Present: Dr. H. Nagesh Prabhu IFS (Retd), Chairman, Dr. Jayachandran K,  
Member, Dr. V. Venu IAS, Member Secretary)*

**Sub: SEIAA - Environmental Clearance for Granite Quarry - Shri. P.V. Santhosh, Block No. 29, Re Survey No. 288/1-1, 288/1-2, 287/2, 288/3, Mazhuvannoor Village, Kunnathunad Taluk, Ernakulam District - Granted – Orders issued.**

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### **State Environment Impact Assessment Authority, Kerala**

**Proposal No. SIA/KL/MIN/131666/2019; File No: 1783/EC3/2020/SEIAA**

**dated, Thiruvananthapuram 8.10.2021**

- Ref: 1. Application received on 21/12/2019 from Shri. P.V. Santhosh, Pandirikottil House, North Mazhuvannoor P.O, Ernakulam District, Kerala
2. Minutes of the 120<sup>th</sup> SEAC meeting held during 24-26, March, 2021.
  3. Minutes of the 122<sup>nd</sup> SEAC meeting held on 15<sup>th</sup>, 16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> June 2021
  4. Minutes of the 123<sup>rd</sup> SEAC meeting held during 27<sup>th</sup> – 30<sup>th</sup> July 2021
  5. Minutes of the 124<sup>th</sup> SEAC meeting held during 24 -27, August, 2021
  6. Minutes of the 112<sup>th</sup> SEIAA meeting held on 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> September 2021
  7. G.O (Rt.) No.29/2019/Env dt.12.04.2019

### **ENVIRONMENTAL CLEARANCE NO. 59/Q/2021**

Mr. P. V. Santhosh, Pandirikottil House, North Mazhuvannoor P.O, Ernakulam District, Kerala., vide application received on 21/12/2019, has sought Environmental Clearance for the Granite Building Stone Quarry project in Block No. 29, Re Survey No. 288/1-1, 288/1-2, 287/2, 288/3 at Mazhuvannoor Village, Kunnathunad Taluk, Ernakulam District, Kerala for an extent of 0.9998 Ha. of land. The project details are as follows:

SL. No.	Particulars	Details
1	Name of the Project	Granite building stone quarry project of Mr. P. V. Santhosh
2	Proposed Activity	Mining of Granite Building Stone
3	Name of the Sector & Schedule No. (in the EIA Notification, 2006)	Non Coal mining, Activity 1(a), Category B2 as per the Schedule of EIA Notification 2006.
4	Name & Address of the Project Proponent	Mr. P. V. Santhosh Pandirikottil House, North Mazhuvanoor P.O, Ernakulam, Kerala.
5	Project Location	
	a) Re.Survey Nos:	288/1-1, 288/1-2, 287/2, 288/3 of Block No. 29
	b) Revenue Village & Panchayat	Mazhuvannoor Village
	c) Taluk	Kunnathunad Taluk
	d) District	Ernakulam
6	Geo Co-ordinates	Latitude 10°2'21.2" N to 10°2'25.4" N Longitude 76°28'29.9" E to 76°28'33. 2" E
7	Extent (in Acre/Hectare)	0.9998 Hectares
8	Project Cost (in Lakh)	Rs 1,77,92,000/-
9	Production Details	32,314 TPA
10	Water requirement & source	Water for domestic, sanitary, dust suppression and afforestation is being met from the open well and tube well. The abandoned quarry pits are used for rain water harvesting.
11	Power Requirement	The quarry operations shall do with diesel operated mining machineries. The power requirement for administrative building and other utilities shall meet from the KSEB power grid.
12	Solid Waste Management	The mine waste and other are proposed to be stacked in the dump area specially provided for the purpose. Care has been taken in selecting the site for the stacking yards for the stacking purpose. It is located in a secure place and having solid base and on a non-used zone.
13	Field Inspection Details	05-07- 2021
		As the part of Environment Management Plan, Corporate Environmental responsibility cell decided to provides the following facilities to Primary Health Centre, Mazhuvannur



14	Details of CER commitment	2021-22	Solar Panel Implementation	3,00,000
			Solar street light units Implementation:	1,80,000
		2022-26	Maintenance and additional works in provided facilities in Mazhuvannoor Grama Panchayath	50,000
		2022-23	Rainwater Harvesting Facility installation	3,50,000
			Drinking water purifier facility:	40,000
		2023-26	Maintenance and additional works of provided facilities in Govt. U.P School, Valamboor	80,000
			<b>TOTAL</b>	10,00,000
15	Validity	<b>5 years from the date of EC</b>		

2. The file was placed in the 124<sup>th</sup> SEAC meeting held on 24 -27, August, 2021. The Committee discussed and accepted the additional details submitted by the proponent. The Committee decided to recommend issuing EC with the project life of five years and with the following specific conditions:

- a. *Approach road should be widened before mining.*
- b. *Top soil near BP7 should not be disturbed.*

3. The proposal was placed in the 112<sup>th</sup> SEIAA meeting held on 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> September 2021. **Authority decided to issue EC for a period of 5 years for the quantity mentioned in the approved Mining Plan subject to the following Specific Conditions in addition to the General Conditions.**

1. *The proponent shall carry out quarrying as per the approved Mining Plan and the proponent should strictly follow the Kerala Minor Mineral Concession Rules 2015 and amendments thereby.*
2. *Approach road should be widened before mining.*
3. *Top soil near BP7 should not be disturbed.*

4. *As per OM no F.No.22-65/2017-IA.III dated 30<sup>th</sup> September 2020, under Corporate Environmental Responsibility (CER ) the project Proponent shall prepare an Environment Management Plan (EMP) as directed by SEAC during appraisal , covering the issues to address the environmental problems in the project region, indicating both physical and financial targets year wise. The EMP shall be implemented in consultation with District Collector. The indicated cost for CER shall be 2% of the project cost depending upon the nature of activities proposed. The follow up action on implementation of CER shall be included in the half yearly compliance report which will be subjected to field inspection at regular intervals. A copy of the approved EMP shall be made available to the concerned Panchayat for information and implementation support*
5. *Considering the seriousness of COVID Pandemic in the state, the project Proponent shall carry out certain activities under Corporate Environmental responsibility (CER) leading to creation of temporary Covid care facilities and other related activities connected with managing the Covid pandemic in the state. This will be done in consultation with local self-governments and as per an action plan approved by District Collector and SEAC. The indicated cost for this purpose will be 50% of the CER cost estimated as above. The EMP may be modified to accommodate these activities in consultation with SEAC. The activities so implemented shall be shown in the half yearly completion report. A copy of the approved EMP shall be made available to the concerned Panchayat for information and implementation support*
6. *In the wake of occurrence of large scale landslides in the state, as per the information provided by the Department of Mining & Geology, it is directed to use only NONEL (Non Electrical) technology for blasting to reduce the vibration of the ground, which is one of the causative factors that triggers landslides, formation of cracks in the surrounding buildings and disturbance to human and wildlife.*
7. *As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16<sup>th</sup> January 2020 issued by MoEF&CC, in obedience to the directions of the Honourable Supreme Court 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.*



4.Environmental Clearance as per the EIA Notification 2006 is hereby accorded for the granite building stone quarry project of Mr. P. V. Santhosh, Pandirikottil House, North Mazhuvanoor P.O, Ernakulam District, Kerala., Block No. 29, Re Survey No. 288/1-1, 288/1-2, 287/2, 288/3, Mazhuvannoor Village, Kunnathunad Taluk, Ernakulam District, Kerala for an area of 0.9998 Ha for a period of 5 years for the quantity mentioned in the approved Mining Plan, subject to the Specific Conditions in Para 3<sup>rd</sup> above, and all the environmental impact mitigation and management measures undertaken by the project proponent in the Form IM, EMP, PFR and Mining Plan submitted to SEIAA. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining (items 1 to 57), appended hereto will be applicable and have to be strictly adhered to.

5. The Environmental Clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and the undertakings in (Mining), (Blasting), (Mines Drainage), (Stacking of Mineral rejects and Disposal of waste), (Environment Management Plan) & (Progressive Mine Closure Plan) of the Mining Plan as submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

6. Validity of the Environmental Clearance will be 5 years from the date of this Environmental Clearance, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of EC in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.

7. Compliance of the EC conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the Regional Office of the Ministry of Environment, Forest & Climate Change, Govt. of India, Bangalore. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.

8. Instances of violation if any shall be reported to the District Collector, Ernakulam
9. The Half Yearly Compliance Report (HYCRs) with its contents, covering letter, compliance report and environmental monitoring data have to be submitted in PDF format merged into a single document. The email should clearly mention the name of the project, EC No and date, period of submission and be sent to the Regional Office of MoEF & CC by email only at email ID [rosz.bng-mefcc@gov.in](mailto:rosz.bng-mefcc@gov.in), and [seacseiaakerala@gmail.com](mailto:seacseiaakerala@gmail.com). Hardcopy of HYCRs shall not be acceptable.
10. The given address for correspondence with the authorised signatory of the project is Mr. P. V. Santhosh, Pandirikottil House, North Mazhuvanoor P.O, Ernakulam District, Kerala.

**Anil P. Antony**  
**Administrator, SEIAA**  
**For Member Secretary, SEIAA**

To,

Mr. P. V. Santhosh,  
Pandirikottil House,  
North Mazhuvanoor P.O,  
Ernakulam District,  
Kerala

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.(through e-mail: [rosz.bng-mefcc@gov.in](mailto:rosz.bng-mefcc@gov.in))
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The Director, Directorate of Environment & Climate Change, 4<sup>th</sup> Floor KSRTC Bus Terminal, Thampanoor, Thiruvananthapuram, Kerala 695001.
4. The District Collector, Ernakulam
5. The Director, Mining & Geology, Thiruvananthapuram -4.
6. The Member Secretary, Kerala State Pollution Control Board
7. The District Geologist, Ernakulam
8. The Tahsildhar, Kunnathunad Taluk, Ernakulam District
9. The Secretary, Mazhuvanoor Grama Panchayath, Kunnathunad Taluk, Ernakulam
10. The Chairman, SEIAA.
11. Website.
12. S/f
13. O/c



## **STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) KERALA**

### **GENERAL CONDITIONS FOR GRANITE STONE MINING PROJECTS**

1. The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.
2. All the statutory clearances should be obtained, as applicable, by the project proponent from the respective competent authorities including that for blasting and storage of explosives. Copies of all statutory clearances shall be submitted along with First Half Yearly Compliance Report.
3. The project proponent should advertise in news papers that the project has been accorded Environmental Clearance and copies of clearance letters are available in the Office of State Environment Impact Assessment Authority (SEIAA) and on the website of the Authority at [www.seiaakerala.in](http://www.seiaakerala.in). The advertisement should be in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language. The advertisement should be made within 10 days from the date of receipt of the Environmental Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
4. The proponent shall send a copy of the EC to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The Environmental Clearance shall also be uploaded on the website of the company.
5. The lease area shall be fenced with barbed wire to a minimum height of 4ft around, before starting mining. All the boundary indicators (boards, markings, etc) shall be conspicuous and maintained at all times.
6. The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public.
7. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department. Mats to reduce fly rock blasts to a maximum of 10 PPV should be provided.
8. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged stipulated by Explosive Department.
9. Access roads to the quarry shall be black topped to contain dust emissions that may arise during transportation of materials. The transportation of minerals should be done in covered trucks to contain dust emissions.
10. A separate Environmental Management Cell (EMC) with suitable qualified personnel

should be set-up under the chairmanship of a Senior Executive, who will report directly to the Head of the Organization. The Cell should have representative of Biodiversity Management Committee of the Panchayath and a representative of NGO, if any active in the area. The EMC should meet at least once in six months and review the activities and minutes should be a part of the compliance report.

11. Quarrying has to be carried out as per approved mining plan with the suggestions from SEAC incorporated and following KMMC rules 2015 and the Amendments thereby.
12. The quarrying operation shall be restricted between 7 AM and 5PM
13. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
14. Maximum depth of mining shall be as per the mining plan and as per specific direction of SEAC after field inspection. The maximum depth of mining should not be deeper than the local ground water table. No mining operations should be carried out at places having a slope greater than 45°.
15. The height of any bench shall not exceed five meters and breadth shall not be less than the height.
16. The Project proponent shall ensure that no perennial or intermittent natural water course and/or water resources are obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.
17. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically\_sensitive and archeologically\_important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on specific local conditions.
18. The proponent should plant seedlings at least 5 times of the loss of trees that has occurred while clearing the land for the project and follow planting measures as suggested by SEAC. Suitable avenue trees should be planted along the sides of the approach road and internal roads and open parking areas, if any. Preference should be given to endemic native and fruit bearing species. Planting in buffer areas should be taken up beforehand. Proper upkeep and maintenance of planted seedlings shall be ensured by the project proponent.
19. The proponent should ensure that the vegetation in the buffer is retained, maintained and strengthened with additions of native broad leaved plants.
20. Eco-restoration including the closure of mine as per the progressive closure plan and final closure plan shall be done at the cost of the project proponent. This eco-restoration should follow scientific standards available for restoration, full recovery of the original vegetation and improving the resilience of different ecosystems. Overburden materials should be managed within the site and used for reclamation of mined pit as per mine



closure plan / specific conditions.

21. At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with suitable indigenous plant species, if no other specific condition on reclamation of pit is stipulated in the E.C. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.
22. Control measures on noise and vibration prescribed by KSPCB should be implemented. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
23. Periodical monitoring of the vibration at specified location (preferably at a distance of 50 m and 100 m) to be conducted and records kept for inspection. This could also form a part of the compliance reports.
24. Speed of trucks entering or leaving the mine site is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
25. Acoustic enclosures should be provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standard limit indicated by CPCB/KSPCB.
26. Blasting should be done in a controlled manner using NONEL technique as specified by the regulations of Petroleum and explosive safety organization (GOI) or any other concerned authorized agency. A licensed person should supervise/ control the blasting operations.
27. Measures should be taken for maintaining noise levels below 85 dBA in the work environment.
28. Project proponent should obtain necessary prior permission of the competent authorities for drawing requisite quantity of surface water and ground water for the project.
29. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly compliance reports to SEIAA.
30. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps, to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, and for green belt development etc. The drains shall be regularly desilted and maintained properly, particularly after monsoon.
31. Regular monitoring of ground water level and quality shall be carried out around the mine area during mining operation. If any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
32. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on

a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.

33. In the case of any change(s) in the scope of the project, extent, quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which the E.C was issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority. In the case of transfer of ECs, the matter shall be intimated and get the approval from the Authority as per the existing norms.
34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
35. The top soil, if any, shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained at 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geo textile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.
36. All the mining equipment used in Mining like backhoe loaders and excavators cause pollution and hence shall be serviced regularly & maintained for their efficient functioning and for reducing pollution. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
37. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution checking centre. Washing of all vehicles shall be inside the lease area. .
38. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution such as haul road, loading and unloading points and transfer points and having high levels of PM<sub>10</sub> and PM<sub>2.5</sub>. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
39. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement at project site, parking area, on haul roads, loading and unloading and at transport points should be provided and properly maintained.
40. Corporate Environmental Responsibilities (CER) as prescribed by SEIAA/SEAC should be carried out leading to Environmental stability of the Project region. The activities



carried out under CER should be a part of the half yearly compliance report. The certificates from the beneficiaries, if the CER part is completed should also be submitted to the State Environment Impact Assessment Authority (SEIAA) along with year wise expenditure.

41. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc.
42. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
43. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. The report of health surveillance programme should be included in the half yearly compliance reports.
44. The pits in the abandoned quarries and in the mined area shall be used for activities like water harvesting, aqua culture etc. in an eco friendly manner.
45. If Government land is partly or fully used for mining, the area shall be returned at the end of lease period after mine closure with separate demarcation with suitable survey marks.
46. Any accident occurring in the mined out area after the lease period due to negligence in carrying out safety measures and non-closure , will lead to suspension of all EC obtained for mining by the Proponent.
47. In case of transfer of EC the matter shall be intimated and approval from the Authority shall be obtained as per the existing norms.
48. The proponent shall submit Half Yearly Compliance Reports (1<sup>st</sup> of June & 1<sup>st</sup> of December) on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall be simultaneously sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment Authority (SEIAA). The proponent has to submit Environmental statement in form V of Environment (Protection) Rules 1986 to SPCB on 31<sup>st</sup> March every year.
49. The project authorities should extend full cooperation to the officer (s) from the Regional Office of MOEF & CC located at Bangalore/SEAC/SPCB/CPCB/dept of Mining and Geology, while monitoring compliance of the stipulated conditions, by furnishing the requisite data/information/monitoring reports.
50. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license on consent given by any other authority for the same project.
51. The Authority reserves the right to add additional safeguard measures subsequently, if

- found necessary, and to take action including revoking of the Environment Clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
52. The EC given will be withdrawn at any time if the area is declared high hazardous by the SDMA.
  53. The Environmental Clearance will be subject to the final order of the courts on any pending litigation related to the land or project, in any court of law.
  54. Any appeal against this Environmental Clearance 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.
  55. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  56. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or any of the above conditions. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.
  57. As per regulation no. 106(2) of metalliferous mines regulation under Mine act, the height of any bench shall not exceed six meters and breadth shall not be less than the height.

**Administrator, SEIAA**