



Validity expires on 16.03.2023

***Proceedings of the State Environment Impact Assessment Authority Kerala***

*Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and  
Sri. P.H. Kurian, I.A.S., Member Secretary.*

**Sub: SEIAA- Environmental Clearance for the proposed Granite stone quarry project  
in Survey Nos.272(Pt) at Kizhakkanchery II Village, Alathur Taluk,  
Palakkad District, Kerala by Shri.K.N.Nandakumar, Proprietor -  
Granted – Orders issued.**

**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, KERALA**

**No. 1134/EC/SEIAA/KL/ 2017**

***Dated, Thiruvananthapuram, 17.03.2018***

- Ref:1. Application received on 05.04.2017 from Shri.K.N.Nandakumar, Proprietor, Granite Building Stone Quarry, Korachadath house, 12<sup>th</sup> street, Museum cross lane, Chembukkavu, Thrissur District, Kerala-680020.
2. Minutes of the 76<sup>th</sup> meeting of SEAC held on 25<sup>th</sup> and 26<sup>th</sup> July 2017.
  3. Minutes of the 82<sup>nd</sup> meeting of SEAC held on 25<sup>th</sup> November 2017.
  4. Minutes of the 84<sup>th</sup> meeting of SEAC held on 22<sup>nd</sup> & 23<sup>rd</sup> January 2018.
  5. Minutes of the 86<sup>th</sup> SEAC held on 27<sup>th</sup> February 2018.
  6. Minutes of the 81<sup>st</sup> meeting of SEIAA held on 08.03.2018.
  7. Affidavit dated 16.03.2018 & 17.03.2018 from Shri.K.N.Nandakumar.

**ENVIRONMENTAL CLEARANCE NO. 45/2018**

Shri.K.N.Nandakumar, Proprietor, Granite Stone Quarry, Korachadath house, 12<sup>th</sup> street, Museum cross lane, Chembukkavu, Thrissur District, Kerala-680020, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in survey Nos. 272(Pt) at Kizhakkanchery II Village, Alathur Taluk, Palakkad District, Kerala for an area of 7.6546 Ha. The project comes under Category B2 as per Notification No.S.O.141 (E) dt.15.01.2016 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

Details of the project as furnished by the applicant are as follows:-

**BASIC INFORMATION OF QUARRY**  
**(To be filled in by the Project Proponent)**  
**PART A**

<b>PROJECT DETAILS</b>	
File No.	<b>1134/EC/SEIAA/KL/2017</b>  Proposal No. SIA/KL/MIN/63728/2017 dated 05 Apr 2017
Name /Title of the project	Granite Stone Quarry of Shri.K.N.Nandakumar
Name and address of project proponent.	Shri. K.N.Nandakumar, Proprietor Granite Building Stone Quarry Korachadath house, 12th street, Museum cross lane, Chembukkavu Thrissur – 680020. Mob No: 09287399481 E-mail ID: <a href="mailto:kngrammes2017@gmail.com">kngrammes2017@gmail.com</a>
Owner of the land	Own land. The entire mine lease area of 7.6546 Ha is a private patta land owned by Shaija, Sasidharan, Ramadevi and Thangamaniamma
Survey No. District/Tahik/ and Village etc.	Sy.No 272(Pt) in Kizhakkanchery-II village, Alathur Taluk, Palakkad District
Category/Sub Category and Schedule	Category B2
Details of period of lease or permit with number including the beginning and expiry date of lease/permit period. (Copy to be attached)	Granite stone quarry over an area of 0.0971 Ha at survey number 272(Pt), in Kizhakkanchery II Village, Alathur Taluk, Palakkad District, Kerala from Department of Mining and Geology vide no.27/GBS/DOP/1181/2014/A1/CRPS dated 28.04.2014 which was valid up to 09.02.2015 Copy attached.
Present Status of the project	Not Working.
Date & Year of starting the work of the quarry project.	Quarrying never performed. Applied for fresh lease.
Whether the quarry is working at present or not ?	Not working.
If stopped working since when?	Never Started.
Date of submission of Application	5 <sup>th</sup> April, 2017
Brief description of the project.	Quarrying of building stone granite. The total geological reserve within the mine lease area is estimated to be 105.09 lakh tons. Mineable reserve is estimated to be 38.18 lakh tons.

	<p>Based on the proposed peak rate of Production of 248736 TPA, life of the Quarry, would be about 16 years which may increase in case of not achieving the targeted production during the plan period.</p> <p>The entire land is a private patta land owned by Shaija, Sasidharan, Ramadevi and Thangamaniamma. Consent from land owners were obtained. Shri.K.N.Nandakumar is the sole proprietor and Authorized Signatory of this Granite Stone Quarry.</p> <p>Estimated project cost will be 60 Lakhs.</p> <p>Other than this quarry lease area of Shri. K.N.Nandakumar of 7.6546 Ha, there are no existing leaser permit areas within 500m radius of this proposed quarry. Since the total extent within 500m is &lt; 25 Ha, it can be treated as B2 category and the application for obtaining environmental clearance can be submitted to SEIAA itself.</p> <p>Working will be carried out by open-cast semi-mechanised method.</p>
GPS Co-ordinate	Latitude (N) 10°30'27.326" N to 10°30'38.494" N
	Longitude(E) 76°30'31.242" E to 76°30'45.128" E
Details of Authorized Signatory and address for correspondence	<p>Shri. K.N.Nandakumar, Proprietor Granite Building Stone Quarry Korachadath house, 12th street, Museum cross lane, Chembukkavu Thrissur – 680020. Mob No: 09287399481 E-mail ID: kngranites2017@gmail.com</p>
<b>LAND DETAILS</b>	
Extent of area in hectares	7.6546 Ha.
Is the property forest land/Govt. land/own land/patta land	Own land. The entire mine lease area of 7.6546 Ha is a private patta land owned by Shaija, Sasidharan, Ramadevi and Thangamaniamma and Consent letter from land owners were obtained.
Quantity of top soil/over burden produced and managed	About 10,921 m <sup>3</sup> of top soil and 98,291 m <sup>3</sup> overburden / waste will be generated. The top soil will be used for reclamation purpose. The waste to be generated will be used for road formation, filling of low lying areas in the proposed lease area and nearby areas owned by the proponent.
Latitude and Longitude	<p>Latitude: 10°30'27.326" N to 10°30'38.494" N.</p> <p>Longitude: 76°30'31.242" E to 76°30'45.128" E.</p>

Topography of land and elevation	The mine lease area varies from +200m AMSL to +110m AMSL sloping from Northeast to Southwest.
Slope analysis	The mine lease area varies from +200m AMSL to +110m AMSL sloping from Northeast to Southwest.
Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	This is an opencast mine hence there will not be any subsidence. The bench slopes will be maintained as per DGMS rules and requirement and hence there cannot be any instable slopes. There will be land disturbance due to mining activity.
Access road to the site width and condition	The project site is approachable from VRT - Anakuzhipadam road which is connected to Kundukad - Chittady road. Width - 8 m.
Will there be any adverse impact on the aesthetics of the proposal site	No. The land used will be reclaimed and rehabilitated. Plantation and afforestation will add to the improvement in environment and aesthetic beauty of the area.
<b>MINING DETAILS</b>	
Minimum and Maximum height of excavation.	Up to +80AMSL (Minimum depth - 30m, Maximum depth - 120m)
Life of mine proposed.	16 Years.
Underground mining if any proposed	Not Applicable.
Method of Mining	Presently Semi-Mechanized opencast quarrying method is adopted for exploiting the granite rocks. The mining operation comprises of drilling using jack hammer and compressors, controlled blasting, removal of blasted material using shovel and transportation of material directly to the outside crusher unit.
Distance from the adjacent quarry	There are no existing leases or permit areas within 500m radius of this proposed quarry.
Cluster condition if any	-Nil-
Has "No cluster certificate" submitted?	Not Applicable.
Distance from nearby habitation	The Nearest habitation is located more than 100m away from the lease boundary.
Distance from nearby forest, if applicable	Paravattanimala R.F - 4.2km - SW, Kodasseri R.F - 3.5km - SW, Nelliampatti R.F - 5.9km - E, Kalakottumudichi R.F - 5km - NE, Palapalli R.F - 7.3km - SE. A vested forest is located at a distance of 175m in the W of the lease area
Distance from protected area, Wildlife Sanctuary, National Park etc.	Chimmony Wildlife sanctuary boundary is found to be 3.4km from the lease area and ESA boundary of Chimmony Wildlife sanctuary is found to be 2.2km in the SW direction from the lease Area. The Peechi - Vazhani sanctuary boundary is found to be 4.2km from the lease area and the ESA boundary of Peechi - Vazhani sanctuary is found to be 2.5km in the SW direction from the lease area.

	The final notification regarding the demarcation of the boundaries of these sanctuaries is not notified yet.	
	Application for Wildlife Clearance was submitted online, the proof of the same was submitted.	
Distance from nearby streams/rivers/National Highway and Roads	MangalamPuzha - 4.2 km (N), Mangalam dam - 1.6km - E, Chenkunnupuzha - 1.8km - NE, Mangalam left bank canal - 1.9km - NE, Mangalam right branch canal - 3km - NE, Vataparatodu - 4km - SE, Vandazhipuzha - 4.5km - NE, Karingayamtodu - 410m - SE, Karingayam canal - 750m - E, Chimminipuzha - 8.2km - SW, Ayalurpuzha - 9km - NE.  Nearest Highway: Thrissur-Palakkad Highway - 17 kms	
Is ESA applicable? If so distance from ESA limit	Not Applicable.	
Has approved mining plan, prepared by RQP submitted?	Mining Plan for Granite Stone quarry of Shri.K.N.Nandakumar at Survey no. 272(Pt) in Kizhakkanchery-II village, Alathur Taluk, Palakkad District., Kerala for lease area of 7.6546Ha is approved by District Geologist, Department of Mining and Geology, District of Palakkad vide letter no. DOP/2476/2016/A1, dated 15.02.2017.	
Capacity of production in TPA	248736 TPA	
Details of mining process	It is proposed to initially carry out carryout mining operations in the Northern part of the lease area. Subsequently it is suggested to move quarrying activity in the Southern and Southwestern direction till the possible ultimate floor level of +80m RL. In the mine closure stage, water body will be formed in the quarried void from the mine floor level of +80m AMSL up to 110m AMSL. Ultimately, out of 6.65 Ha of mined out area, 2.5784 Ha will remain as water body whereas the remaining 4.0716 Ha above this level will be reclaimed with bench plantation. Besides, the peripheral safety zone will also be developed with plantation. The mined area will be properly fenced all around.	
DETAILS OF PROJECT COST		
Land cost	Lease Land	
Plant and Machinery	60 Lakhs (Inclusive of all)	
Total Cost	60 Lakhs	
Financial Statement including funding source and details of insurance etc.	50% of fund will be raised by the proponent and the rest will be from loan. Insurance as necessary will be taken as and when necessary and as per the progress of the project.	
Environment Management Plan	Air Pollution	• Regular wetting of transport road using water tanker

		<ul style="list-style-type: none"> <li>• Avoiding overloading of tippers</li> <li>• Covering of loaded tippers with tarpaulins during transportation</li> <li>• Development of green belt / barriers wherever possible</li> </ul>
	Water Pollution	<ul style="list-style-type: none"> <li>• Sewage generated will be properly discharged into septic tanks with soak pits.</li> <li>• The rain water falling in the quarry will be harvested up to +110 m AMSL. This pit will act as a settling pond to prevent solids escaping along with discharge, before outlet etc. Besides, it is also suggested to construct a settlement pond outside the lease area on the Southern side so that the water can be diverted into this pond.</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>• Noise levels can be abated through good preventive maintenance of machineries, green belt creation, provision of ear muffs to workers, etc.,</li> <li>• Sound proof operator's cabin for equipment like dumpers, shovel, tippers, etc.,</li> <li>• Ground vibration are controlled through optimum design for burden &amp; spacing, inclined drilling practice, using ordinary electric milli second delay detonators, in combination with detonating fuse etc.,</li> </ul>
	Solid Waste Management	<ul style="list-style-type: none"> <li>• There is some soil capping in the area comprises of top soil as well as overburden / waste. The average thickness of the overburden is about 2.0m.</li> <li>• The total quantity of waste to be generated from the lease area is 1,09,212m<sup>3</sup> comprising about 10,921m<sup>3</sup> of top soil and 98,291m<sup>3</sup> overburden / waste.</li> <li>• The top soil will be used for reclamation purpose. The waste to be generated will be used for road formation, filling of low</li> </ul>

		lying areas in the proposed lease area and nearby areas owned by the proponent.
	Eco-restoration	<ul style="list-style-type: none"><li>• In the mine closure stage, water body will be formed in the quarried void from the mine floor level of +80m AMSL up to 110m AMSL. Ultimately, out of 6.65 Ha of mined out area, 2.5784 Ha will remain as water body whereas the remaining 4.0716 Ha above this level will be reclaimed with bench plantation.</li><li>• Besides, the peripheral safety zone will also be developed with plantation.</li></ul>
Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes.	
Does it suggest mitigation measures for each activity	Yes. Detailed Environment Management Plan is already shown.	
Is Pre-Feasibility Report (PFR) satisfactory	Yes. Detailed Environment Management Plan is already shown.	
Does it need public hearing	No.	
Details of litigation and Court verdict if any	-Nil-	
Details of public complaint, if any	-Nil-	
Details of statutory sanction required	The following statutory sanction required: <ul style="list-style-type: none"><li>• Consents from the Kerala State Pollution Control Board.</li><li>• Permission from Mining and Geology Department.</li><li>• Permission from Explosive Department.</li><li>• Permission from Panchayath Office.</li></ul> Necessary permissions and statutory requirements will be acquired.	
If CRZ recommendation applicable?	Not Applicable.	
<b>PART B</b>		
<b>ENVIRONMENT IMPACT ASSESSMENT AND MITIGATION MEASURES</b>		
Details of water requirement per day in KLD	1.0 KLD - Domestic Sanitary needs, 5.0 KLD - Dust Suppression and Greenbelt requirement, Total - 6.0 KLD	

Water source/sources.	Own well near mine lease area.
Expected water use per day in KLD.	6.0 KLD
Details of water requirements met from water harvesting.	The rain water falling in the quarry will be harvested up to +110 m AMSL. This pit will act as a settling pond to prevent solids escaping along with discharge, before outlet etc. Besides, it is also suggested to construct a settlement pond outside the lease area on the Southern side so that the water can be diverted into this pond.
What are the impact of the proposal on the ground water?	None.
How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	No.
What is the incremental pollution load from waste water generated from the proposed activities?	Liquid domestic effluents are minimal and let out into septic tank and soak pits.
How is the storm water from within the site managed?	It is also suggested to construct a settlement pond outside the lease area on the Southern side so that the water can be diverted into this pond. All measures will be taken not to disturb the existing drainage patterns. Storm water collected from the lease area will be utilized for dust suppression on haul roads, plantation within the premises.
<b>IMPACT ON BIODIVERSITY AND ECO RESTORATION PROGRAMMES</b>	
Will the project involve extensive clearing or modification of vegetation (Provide details)	Minor clearing of some native vegetation, which will be planted at the end use for eco-restoration.
What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	Year-wise program of eco-restoration for the life of the mine will be made and about 150-300 trees will be planted yearly. Selection of the trees/plants to be planted will be done based on High dust capturing, Soil holding capacity, ground water recharge capacity, etc. More focus is given for medical plants.  Detailed description already given in EMP above.
Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures? Presence of any endangered species or red listed category (in detail)	-Nil-
<b>IMPACT ON AIR ENVIRONMENT</b>	
What are the mitigation	There will be some dust emission due to mining and allied



measures on generation of dust, smoke and air quality	activities which will be controlled by following measures like: <ul style="list-style-type: none"> <li>• Proper maintenance of HEMM</li> <li>• Frequent water sprinkling</li> <li>• Development of greenbelt</li> </ul> Covering of transport material with tarpaulin cover etc., More details EMP provided above.
Details of internal traffic management of the site.	Designated space will be provided for parking of truck/tipper within the site. For mining activities, existing roads are sufficient. However, haul roads will be suitably developed within the proposed area. Speed of the vehicles will be maintained within the prescribed limits (Speed Governor fitted).
Details of noise from traffic, machines and vibrator and mitigation measures	Noise level monitored in 3 locations show that the value are within the prescribed MoEF standards.  More Details already provided in EMP above.
Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	Existing environmental quality studies for various environmental attributes like ambient air, water, noise, soil etc., were carried out and all the parameters were within the prescribed limits.  More details provided in EMP above.
Air quality monitoring in detail	The result of Ambient Air Quality carried out at 3 locations for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>2</sub> were found to be well within the prescribed NAAQ limits.  More details Provided in EMP above
<b>ENERGY CONSERVATION</b>	
Details of power requirement and source of supply.	No electricity is needed for quarry operations as only diesel operated mining machinery including jack hammer will be used for quarrying. Hence the negligible power requirement of the administrative buildings etc., will be met from state grid.
Details of renewable energy (non - conventional) used.	We will promote renewable energy resources.
<b>RISK MANAGEMENT</b>	
Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	In this proposed quarry, all the site services such as first-aid room, office, rest shelter, canteen, toilets and magazine will be established before the commencement of full-fledged mining activities. The workers will also be supplied with helmets, safety boots, ear muffler, masks, gloves, etc., as personal protective devices. Accommodation facilities will also be provided to all needy quarry workers by the proponent.
Are proposals for fencing around the quarry satisfactory? Storage of explosives/hazardous	Yes, the mined area will be properly fenced all around. The stone quarry mine will result in increase in frequency of blasting for mining the mineral. However, controlled blasting with optimum charge of holes will be carried out to loosen the rock. Explosion hazards are envisaged due to mishandling of

substance in detail Facility for solid waste management	explosives. Explosives will be handled with utmost care and responsibility in compliance with the conditions imposed by chief controller of Explosives and Metalliferous Mines Regulation, 1961.  Topsoil and overburden generated from the site will be stored separately and will be used for eco-restoration and internal road development. More details provided in EMP above.
--	--

### SOCIO ECONOMIC IMPACTS

Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?	No.
Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	The proposed project will directly/indirectly develop the area by providing employment opportunities. With the proposed development in and around the area, there will be many supporting facilities/infrastructures eventually leading to the development of the area.

Details of CSR commitment	CSR Activities proposed to be carried out		
	Sl.No	Particulars	Amount in Rs.in lakhs
	1	Educational Facilities: Govt. Higher Secondary School, Kizhakkenchery.  School Uniform Bag, Umbrella for 100 Students (Rs. 2000 * 100 Students * 5Yrs)	10
	2	Medical Facilities: Medical Help for needy and critical patients in nearby villages (Avg of Rs. 1,50,000 * 5Yrs)	7.5
	3	Orphanage/Anganvady: Anugraha Bhavan, Chittadi Orphanage/Anganvady Anakuzhipadam  Providing provisions for food at Rs. 50,000/ per annum (Rs. 50000*5Yrs)	2.5
	4	Area Development: Kizhakkenchery Gramapanchayath  Self-Employment scheme Animal Husbandry/Catering /Sewing machine (Rs. 2,00,000 * 5Yrs)  Help Making Pucca Houses / Toilets (Rs. 3,00,000 x 5 years)	10

	Marriage help for poor girls (Rs. 1,00,000 x 5 years)	15
		5
	Total Cost	50
What are the projects benefits in terms of employment potential?	The quarrying operation will result in direct employment opportunities for about 15 persons. Besides, indirectly more than 100 persons will be benefited by gainful indirect employment opportunities through various service related activities.	
<b>PART C</b>		
Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	Creative Engineers & Consultants, 9/4b, Barathwajar Street, East Tambaram, Chennai - 600 059. Ph: 044 - 22395170 Mobile No: 9444133619 Email: cecgiri@yahoo.com	
<b>SUMMARY AND CONCLUSION</b>		
Overall justification for implementation of the project.	<p>There are no resettlement and rehabilitation issues involved in this project. The revenue of the State Government will be increasing due to the proposed activity. The entire project area is devoid of any endangered flora and fauna. It is proposed to reclaim the land and develop green cover for eco-restoration with native species to a maximum possible extend.</p> <p>The project proponent will implement CSR activities to the local community around the project site. About Rs.10 lakhs per annum will be spent for various activities like providing fund to local needy poor persons for Educational aid, Medical aid, etc.</p> <p>The proposed mining project will benefit this region in the fields of potential employment opportunities, improved per capita income for local people, improving social welfare facilities like infrastructural build-up, etc.</p>	
Explanation of how adverse impact have been mitigated.	<p>Various mitigation measures like water sprinkling using water tankers, proper maintenance of roads, periodical maintenance of Plant and Machinery, provision of earplugs, plantation, creation of settling pond/ sump at the bottom of the pit etc., are and will be followed to abate pollution.</p> <p>Besides, For Panchayat Level Biodiversity Management Committee 1 % of the profit will be contributed to restore the ecosystem as per the direction given by the State Expert Appraisal Committee, Kerala.</p> <p>A meticulously well planned Environmental Management Plan, with various programme schedules and timely execution objectives, as above, will ensure that the future environmental quality in the area will also be maintained within statutory limits.</p> <p>More details in EMP above.</p>	

2. The proposal was considered in the 76<sup>th</sup> meeting of SEAC held on 25<sup>th</sup> and 26<sup>th</sup> July 2017 and decided to defer the item for field inspection.

Accordingly field visit to the proposed quarry project was carried by Sub Committee consisting of Dr. K.G. Padmakumar & Dr. E.A. Jayson 11.11.2017. The report is as follows;

- Project site has a lease area of 7.6546 Ha, which is a private patta land. Work/ operation has not been initiated, Land is presently planted with pineapple, a maiden plantation.
- The nearest habitation is over 100 m away from the lease boundary, now not occupied by the owner, as told, given on rent to estate labor.. No other households nearby.
- Nearest town is Vadakkancheri, about 8.8 km NW from the quarry site.
- Mangalam Dam- is situated at 1.6 km E and Nearest river/rivulet is Chenkunnupuzha at 1.8 km NE,
- The Kodasseri R.F is located at 3.5 km-SW and the site is at 175 m from a vested forest on the west, - not a thick forest, - but also stated to be inhabited.
- Considering the proximity to nearby vested forest, a dedicated fringe greenbelt thick enough for insulation, shall be formed as an ecotone on the western border.
- The distance to the Chimmōny wildlife sanctuary need to be checked/ verified (although an NOC from Alathur Forest Range officer and Nenmara DFO has been submitted according to the proponent)
- There is a deep stone pit on the Eastern side, where the proponent proposes to collect surface flow from the hillock, for reuse.
- There exist a natural garland drain, 'nullah', seasonal, (dry at time of visit) during NE monsoon exist, encircling the bottom border of the hillock, on the south and south west border flowing through the adjacent property and further.
- As the deep pit on the East is proposed to be used as a functional Settling Pond during quarry operation, proponent shall ensure that only clarified water is allowed to overflow to the natural drain
- No other leases or permit quarry exist anywhere within 500m radius.
- The water requirement is proposed to be met from a perennial well source located within the property.
- The proposed land is considerably rich with fertile top soil, over 2m, indicated as 10,921m<sup>3</sup> and 98,291m<sup>3</sup> overburden.
- The proponent should ensure that this fine top soil and overburden removed shall be stacked separately and no part shall go out from the site, Shall only be used for reclamation of mine pits, on closure..
- The approach road VRT- Anakkuzhpadam road, 2-3 km length connecting the site to the main roadie Kundukad- Chittadi Road is in poor shape, with potholes, which may further deteriorate with vehicle movement.

*The proponent shall ensure that the approach road, is properly maintained from the site to the main road, in a good condition, to the benefit inhabitants residents residing on either side, up to the main road. This can be a dedicated CSR activity of the company.*

3. The proposal was placed in the 82<sup>nd</sup> meeting of SEAC held on 25<sup>th</sup> November 2017 and decided to defer the item for clarification from the proponent regarding the proximity of Chimmony Wild Life Sanctuary from the project site. If it is within 10 km the proponent should produce the proof for having applied for Wild Life Clearance.

The proponent vide letter dt.01.01.2018 stated that since the project is outside the ESA boundary of Chimmony Wild Life Sanctuary the NBWL Clearance is not applicable for the project.

4. The proposal was placed in the 84<sup>th</sup> meeting of SEAC held on 22<sup>nd</sup> & 23<sup>rd</sup> January 2018. Since so far the final Notification with regards to the eco-sensitive zone around the Chimmony Wildlife Sanctuary has not yet been issued by the MoEF & CC, any proposal requiring EC to be setup within 10 Kms of the Protected Area will require Wild Life Clearance. Hence, the Committee decided to defer the item for production of proof of having applied for Wildlife Clearance.

5. The proponent has been submitted the documents sought by 84<sup>th</sup> SEAC. The proposal was placed in the 86<sup>th</sup> SEAC held on 27<sup>th</sup> February 2018. The Committee appraised the proposal based on Form I, Pre-feasibility Report, Mining Plan, field inspection report of the Sub Committee and all other documents submitted with the proposal. The Committee verified the additional documents submitted by the proponent and found satisfactory. The Committee decided to **Recommend for issuance of EC** subject to general conditions.

*1. If any rare, endemic and threatened plant species are noticed, they shall be properly protected insitu or transplanted to a suitable site inside the lease area:*

The proponent consented to set apart Rs.15 lakh per annum (recurring) for taking up local community welfare activities in consultation with the local Panchayat.

6. The proposal was placed in the 81<sup>st</sup> meeting of SEIAA held on 08.03.2018. Authority accepted the recommendation of SEAC and decided to issue EC subject to general conditions in addition to the above specific condition as suggested by SEAC. The proponent should set apart Rs.15 lakh per annum (recurring) for taking up local community welfare activities in consultation with the local Panchayat. The CSR amount should be included in the annual account of the company and the expenditure statement should be submitted to SEIAA along with the compliance report after getting certified by a Chartered Accountant. A notarised affidavit for the commitment of CSR activities and also agreeing all the general and specific conditions should be submitted before the issuance of EC.

7. The proponent has submitted an affidavit vide reference 7<sup>th</sup> cited, satisfying all the above conditions. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Granite stone quarry project in Survey Nos.272(Pt) in Kizhakkanchery II Village, Alathur Taluk, Palakkad District, Kerala of Shri.K.N.Nandakumar, Proprietor, Granite Building Stone Quarry, Korachadath house, 12<sup>th</sup> street, Museum cross lane, Chembukkavu, Thrissur District, Kerala-680020, for an area of 7.6546 Ha, subject to the specific conditions as recommended in para 5 above, all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I, 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 61), appended hereto will be applicable and have to be strictly adhered to.

8. The 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 Chapter 4 (Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (Stacking of Mineral rejects and Disposal of waste) Chapter 11 (EMP) Chapter 12 (Progressive Mine Closure Plan) of the Mining Plans submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

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

10. Compliance of the 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 & Forests, Govt. of India, Bangalore.

- i. 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.
- ii. Instances of violation if any shall be reported to the District Collector, Palakkad to take legal action under the Environment (Protection) Act 1986.

- iii. The given address for correspondence with the authorised signatory of the project is Shri.K.N.Nandakumar, Proprietor, Granite Building Stone Quarry, Korachadath house, 12<sup>th</sup> street, Museum cross lane, Chembukkavu, Thrissur District, Kerala-680020

Sd/-

**P.H.KURIAN.I.A.S,**  
**Member Secretary (SEIAA)**

To,


Shri.K.N.Nandakumar,  
Proprietor, Granite Building Stone Quarry,  
Korachadath house, 12<sup>th</sup> street,  
Museum cross lane, Chembukkavu,  
Thrissur District, Kerala-680020

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala.
3. The Director, Mining & Geology, Thiruvananthapuram -4.
4. The Member Secretary, Kerala State Pollution Control Board
5. The District Collector, Palakkad
6. The District Geologist, Palakkad
7. The Tahasildar, Alathur Taluk, Palakkad District
8. Chairman, SEIAA.
9. Website.
10. S/f
11. O/c



Forwarded/By Order

  
Administrator, SEIAA

# STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

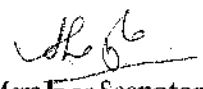
## GENERAL CONDITIONS (for mining projects)

1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR/ KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. 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 indigenous plant species that are eco-friendly, if no other specific condition on reclamation of pit is stipulated in the E.C.
8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented.
9. The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.
10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/ control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m.
20. No mining operations should be carried out at places having a slope greater than 45°.
21. Acoustic enclosures should have been 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 standards given by CPCB/KSPCB.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
29. 100 m buffer distance should be maintained from forest boundaries.



30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
31. All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
32. 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 only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponents shall apply and get the approval of this Authority.
33. 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.
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 project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at [www.seiaakerala.org](http://www.seiaakerala.org). The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
36. A copy of the clearance letter shall be sent by the proponent 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 put on the website of the company by the proponent.
37. The proponent shall submit half yearly reports 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 simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.
38. 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 of 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
39. 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.
40. No change in mining technology and scope of working should be made without prior approval of the SEIAA. No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.
41. The Project proponent shall ensure that no natural water course and/or water resources shall be 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.
42. 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. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.
43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be 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 to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.

44. 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, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of  $PM_{10}$  and  $PM_{2.5}$  such as haul Road, loading and unloading points and transfer points - it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
49. The funds earmarked for environmental protection measures and CSR activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
50. The Regional Office of MOEF & CC located at Bangalore 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.
51. 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.
52. 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.
53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
54. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license or consent given by any other authority for the same project.
55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.
56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.
57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution testing centre. Washing of all vehicles shall be inside the lease area.
59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
60. 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 reports to SEIAA.
61. 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.

  
For Member Secretary, SEIAA Kerala