

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

*Present: Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member &  
Sri. V.S.Senthil I.A.S Member Secretary.*

Sub: SEIAA - Environmental clearance for Quarry project in Sy. No. 133/6-1, 134/9-1, 134/9-2, 134/13, 135/2 and 135/4-1 at Manickal Village, Nedumangad Taluk, Thiruvananthapuram District by Sri.Nitheesh Babu.B.S for M/s Kunjikuzhi Stones - EC Granted-Orders issued

**State Environment Impact Assessment Authority, Kerala**

**No. 708/SEIAA/ EC1/5685/2014**

**dated, Thiruvananthapuram 21.02.2017**

- Ref:
1. Application dated 28.11.2014 from Sri. P. Vijayan Nair, Proprietor, M/s Kunjikuzhi Stones, Arun Nivas, Kathikampara, Marangadu P.O., Nedumangadu, Thiruvananthapuram
  2. Minutes of the 41<sup>st</sup> meeting of SEAC held on 16/17-06-2015
  3. Minutes of the 48<sup>th</sup> meeting of SEAC held on 6/7-10-2015
  4. Minutes of the 52<sup>nd</sup> meeting of SEAC held on 8/9-02-2016
  5. Minutes of the 51<sup>st</sup> meeting of SEIAA held on 29-03-2016
  6. Minutes of the 54<sup>th</sup> meeting of SEIAA held on 21-06-2016
  7. Minutes of the 60<sup>th</sup> meeting of SEAC held on 28/29-07- 2016
  8. Minutes of the 59<sup>th</sup> meeting of SEIAA held on 27-09-2016
  9. Minutes of the 64<sup>th</sup> meeting of SEAC held on 16/17-11-2016
  10. Minutes of the 62<sup>th</sup> meeting of SEIAA held on 23-12-2016

**ENVIRONMENTAL CLEARANCE NO. 18/ 2017**

Sri. P. Vijayan Nair, Proprietor, M/s Kunjikuzhi Stones, Arun Nivas, Kathikampara, Marangadu P.O., Nedumangadu, Thiruvananthapuram, vide his application received on 28-11-2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 133/6-1, 134/9-1, 134/9-2, 134/13, 135/2 and 135/4-1 at Manickal Village, Nedumangad Taluk, Thiruvananthapuram District for an area of 1.7720 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II (M) dated 18<sup>th</sup> May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares. Other details of the project are as follows:

Project details		
1	File No.	708/SEIAA/KL/5785/2014
2	Name /Title of the project	Kunjikuzhi Stones
3	Name and address of project proponent.	Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala
4	Owner of the land	Sreelatha W/o Babupilla, VilayilVeettil, Pirappancaud P.O., Thiruvananthapuram
5	Survey No. District/Taluk/ and Village etc.	Resurvey No. 133/6-1, 134/9-1, 134/9-2, 134/13, 135/2 and 135/4-1 Manikkal Village, Nedumangad Taluk, Thiruvananthapuram District, Kerala
6	Nature of the proposal – lease or permit with evidence.	Quarry permit existed. Permit No. CRPS/21/ 2015- 16/ GBS/ 3910/ DOT/ML/2015
7	Date of submission of Application	02.12.2014
8	Brief description of the project.	Kunjikuzhi Stones is a Building Stone Quarry operated under proprietorship of Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala, situated at Kadavinthalakkalpara, Manickal Village Nedumangad Taluk, Thiruvananthapuram District, Kerala
9	Details of Authorized Signatory and address for correspondence	Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala
Land Details		
1	a) Extent of area in hectares	01.7720 Ha
2	b) Is the property forest land/Govt. land/own land/patta land	Own Land
3	c) Quantity of top soil/over burden produced and managed	The generation of overburden or mine waste is about 4,000 tonnes per year and the same will be stacked within the quarry earmarked for the purpose. About 20000 tonnes of topsoil is likely to generate during the life of the quarry, this will be removed separately as and when occurs during the course of quarrying. This will be stacked separately with in the quarry.
4	d) Latitude and Longitude	Latitude - 08°39'26.66" to 08°39'31.66" Longitude - 76°55'58.06" to 76°56'06.79"

5	e) Topography of land and elevation	Part of the proposed land is already under mining and there is no vegetation in that area. The remaining land in the proposed land is mostly covered with native trees, shrubs, herbs, grass, climbers, bushes etc. The highest elevation of the lease area is 130 m. MSL and lowest is 85 m MSL. As the proposed area is hill rock, the drainage of the lease area is towards E to W. No habitants are located in the proposed area.
6	f) Slope analysis	The final pit slope will be kept at not steeper than 45° which is not likely to cause any problem in respect of slope stability. Thus there is no likelihood of any land slide at any stage in future.
7	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	The final pit slope will be kept at not steeper than 45° which is not likely to cause any problem in respect of slope stability. Thus there is no likelihood of any land slide at any stage in future.
8	h) Access road to the site width and condition	7 meter wide access road will be maintained
9	i) Will there be any adverse impact on the aesthetics of the proposal site	No
<b>Mining details</b>		
1	a) Minimum and Maximum height of excavation.	Min: +85 MSL Max: +130 MSL
2	b) Life of mine proposed.	12 years
3	c) Underground mining if any proposed	No
4	d) Method of Mining	Open cast mining
5	e) Distance from the adjacent quarry	More than 500 meter
6	f) Cluster condition if any	No
7	g) Has "No cluster certificate" submitted?	Yes. Certificate No. 4086/DOT/ML/2015
8	h) Distance from nearby habitation	110 meter
9	i) Distance from nearby forest, if applicable	Ponmudi Forest (23 km)
10	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	Peppara Wild Life Sanctuary (28 km)

11	k) Distance from nearby streams/rivers/National Highway and Roads	Nallah – 0.75 km River – VamanapuramAr – 4.2 km North National Highway –NH – 66 at 10.50 km West State Highway – SH-66 at 900 meter South West
12	l) Is ESA applicable? If so distance from ESA limit	NA
13	m) Has approved mining plan, prepared by RQP submitted?	Yes
14	n) Capacity of production in TPA	15000 MTA
15	o) Details of mining process	The proposed method of mining will be Semi mechanized open cast mining. The basic mining techniques adopted will be uses of machines. For the systematic working of open cast mines, the main development work will be the forming of systematic benching. The height of bench will not be kept more than 5.0m at a time and the width of the benches will be always kept safe according to provisions. The Mining will be done with the help of tools such as drills, jack-hammer, compressors, hand shovel, picks, excavators etc. The targeted annual production of Stone is about 15,000 MTA.
<b>Details of Project cost</b>		
1	a) Land cost	Rs. 25,07,000/-
2	b) Plant and Machinery	Rs. 15,00,000/-
3	c) Total Cost	Rs. 40,07,000/-
4	V. Financial Statement including funding source and details of insurance etc.	Self funded
5	Management Plan	<i>Air Pollution</i> The mining has been proposed by semi-mechanized open cast method. Water spraying will be done on haul/service roads, mining area, loading and unloading places etc. There will not be any significant impact on ambient air quality.
		<i>Water Pollution</i> Domestic sewage treated in septic tanks, will be discharged into soak pits. Other than that no effluent is generated.
		<i>Noise</i> The quarrying operation will be restricted to only day time, to attenuate noise various measures shall be taken up from the source

			<i>point. The activity such as drilling shall be updated to latest technology which involves wet drilling technology, and blasting will be carried out with controlled mechanism.</i>
		<i>Solid Waste Management</i>	<i>Domestic waste (solid waste, food waste and other PVC packets) will be generated, which shall be disposed into waste bins and disposed.</i>
		<i>Eco-restoration</i>	<i>The year wise programme of eco-restoration for the life of mine, about 1800 trees will be planted in an area of 1.752 ha.</i>

6	<b>IX.</b> Does it need public hearing	No
7	<b>X.</b> Details of litigation and Court verdict if any	NA
8	<b>XI.</b> Details of public complaint, if any	NA
9	<b>XII.</b> Details of statutory sanction required	NA
10	<b>XIII.</b> If CRZ recommendation applicable?	NA

#### **PART B**

#### **Environment Impact Assessment and Mitigation Measures**

##### **Impact on water**

1	a) Details of water requirement per day in KLD	4.50 KLD
2	b) Water source/sources.	Tanker water supply
3	c) Expected water use per day in KLD.	Dust Suppression: 2.00 KLD Plantation Purpose: 2.00 KLD Domestic Use: 0.50 KLD  Total Water Usage: 4.50 KLD
4	d) Details of water requirements met from water harvesting.	4 KLD
5	e) What are the impact of the proposal on the ground water?	NIL
6	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Domestic sewage treated in septic tanks, will be discharged into soak pits. Other than that no effluent is generated.
7	g) What is the incremental pollution load from waste	No effluent is generated.

	water generated from the proposed activities?	
8	h) How is the storm water from within the site managed?	Drainage will be maintained and primary treatment will be done before discharge
<b>Impact on Biodiversity and Eco restoration Programmes</b>		
1	a) Will the project involve extensive clearing or modification of vegetation (Provide details)	No
2	b) What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	The year wise programme of eco-restoration for the life of mine, about 1800 trees will be planted in an area of 1.752 ha.
3	c) Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? d) Presence of any endangered species or red listed category (in detail)	Most of the lease area is devoid of vegetation. However, at some places, shrubs and bushes can be seen. During operational phase, plant species will be cleared from mine site and same will be planted during the process of afforestation. There is no any endangered species or red listed category exists at project site
<b>Impact on Air Environment</b>		
1	a) What are the mitigation measures on generation of dust, smoke and air quality	Mining operation is of small scale so air pollution due to dust will be negligible. Wet drilling has been proposed to minimize the dust. Water spraying will be done on haul/service roads, mining area, loading and unloading places etc. There will not be any significant impact on ambient air quality
2	b) Details of internal traffic management of the site.	Loading of mineral will be done by excavator and will be sent to the destination. Trucks / Tippers of 15T will be used for transportation of mineral from mine site. It is expected that 3-4 trips will be required to transport on daily basis. For this, movement of truck per hour will be 1-2 only. Thus, the impact due to movement of trucks from the mine will be marginal and well within the capacity of the roads.
3	c) Details of noise from traffic, machines and vibrator and mitigation measures	Noise generating equipment in the area are as under 1. Excavators 2. Drilling Machine 3. Trucks/ Tippers  Mitigation Measures:- • Effective maintenance of machineries and vehicles at regular and frequent intervals. • Plantation of green belt around the haul roads and lease periphery • PPE's will be provided

		The noise is the environment attribute associated with the quarrying activity and operation of heavy machinery. The quarrying operation will be restricted to only day time, to attenuate noise various measures shall be taken up from the source point. The activity such as drilling shall be updated to latest technology which involves wet drilling technology, and blasting will be carried out with controlled mechanism.
4	d) Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	D.G. Sets will be covered with acoustic enclosure which will mitigate noise pollution
5	e) Air quality monitoring in detail	An environment protection cum afforestation cell has been proposed. Regular monitoring of ambient air quality will be carried out.
<b>Energy Conservation</b>		
1	a) Details of power requirement and source of supply.	No electricity will be required as mining will be carried out during daytime by opencast semi-mechanized method. Minimal power required for office shall be taken from the general electric supply of the area.
2	b) Details of renewable energy (non – conventional) used.	No renewable energy (non – conventional) used.
<b>Risk Management</b>		
1	a) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	Yes
2	b) Are proposals for fencing around the quarry satisfactory? c) Storage of explosives/hazardous substance in detail d) Facility for solid waste management	Yes
<b>Socio Economic Impacts</b>		
3	a) Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?	No adverse effects on local communities disturbance to sacred sites or other cultural values
4	b) Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	No

5	c) Are the CSR proposals satisfactory. Give details	CSR ACTIVITIES		
		Sl.No	Particulars	Amount in Rs. In lakhs
		1	Free material supply for road renovation in Manickal and Pirappancaud Region	Rs. 1,00,000/-
		2	Fund for maintenance of places of worship in Manickal Village	Rs. 75,000/-
		3	Kits supply to inhabitants of Old Age Homes and Orphanages in Kazhakkootam Region	Rs. 1,50,000/-
		4	Release of 1% of annual profit to Biodiversity Management Committee, Manickal Village	Rs. 25,000/-
		5	Drinking water supply at Manickal and Pirappancaud Region during summer season (300 Litre/ Day)	Rs. 70,000/-
		6	Food supply in Old Age Homes and Orphanages in Kazhakkootam Region	Rs. 50,000/-
		7	Financial assistance for patients of financially backward families at surrounding of the site (10 No.)	Rs. 3,00,000/-
		8	Uniforms and study materials distribution school children ( 50 No.) at G.L.P.S. Thiripancaud, G.L.P.S. Koppam and Pirapancaud H.S.S.	Rs. 15,000/-
		TOTAL COST	Rs. 7,85,000/-	
6	d) What are the projects benefits in terms of employment potential?	Project will create direct & indirect employment opportunities within the surrounding region. About 25 people are working in the quarrying activities as direct and indirect employment, majority are from the local community except few technical staff.		
PART C				
7	Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	M/s Mantec Consultants Pvt. Ltd., D-36, Sector - 6, Noida – 201301  <b>Registered Address</b> 805, Vishal Bhawan, 95, Nehru Place, New Delhi – 110019  Accreditation No. NABET/EIA/RAO23/024		
Summary and Conclusion				
8	a) Overall justification for implementation of the project.	The basic objective of the project is to effective utilization of material in the region. Granite (Building Stone) is the most commonly used metal in road, railway track construction etc. Being a construction material, the mineral will be used in local market. The excavated mineral will be crushed into required sizes and made ready for use. The mining project will fulfill its end uses in construction purposes. The mining and associated activities in the mineral bearing areas will		



		<p>add to the revenue of the state through royalty on the mineral and the taxes as well as improve the economic conditions of the local people through direct and secondary employment.</p> <p>The mining project will provide employment to local people. Applicant will pay royalty for the mineral produced from the mine, direct and indirect taxes will be paid thereby contributing to the regional revenue. The public revenue so generated will further be put for use in infrastructural development and other sectors like health, education and social welfare. The applicant will spend 1% of profit for the socio-economic development of the area i.e. medical facilities, schools, temples and other social work</p>
9	b) Explanation of how adverse impact have been mitigated.	<p>Mitigation measures have been proposed all possible adverse impacts may get generated by the project. Mining operation is of small scale so air pollution due to dust will be negligible. Wet drilling has been proposed to minimize the dust. Water spraying will be done on haul/service roads, mining area, loading and unloading places etc. There will not be any significant impact on ambient air quality. Most of the lease area is devoid of vegetation. However, at some places, shrubs and bushes can be seen. During operational phase, plant species will be cleared from mine site and same will be planted during the process of afforestation.</p> <p>Domestic sewage treated in septic tanks, will be discharged into soak pits. Other than that no effluent is generated.</p> <p>The noise is the environment attribute associated with the quarrying activity and operation of heavy machinery. The quarrying operation will be restricted to only day time, to attenuate noise various measures shall be taken up from the source point. The activity such as drilling shall be updated to latest technology which involves wet drilling technology, and blasting will be carried out with controlled mechanism.</p> <p>No electricity will be required as mining will be carried out during daytime by opencast semi-mechanized method. Minimal power required for office shall be taken from the general electric supply of the area.</p> <p>The generation of overburden or mine waste is about 4,000 tonnes per year and the same will be stacked within the quarry earmarked for the purpose.</p> <p>About 20000 tonnes of topsoil is likely to generate during the life of the quarry, this will be removed separately as and when occurs during the course of quarrying. This will be stacked separately with in the quarry.</p>

2. The proposal was considered in the 41<sup>st</sup> meeting of SEAC held on 16-17 June 2015. The Committee deferred the item for site inspection by a team consisting of Dr. Kesav Mohan and Sri P Sreekumaran Nair.

The Sub Committee visited the site and observed the following.

1. Profile of the project Site is given in figures 1,2,3. It Indicate that the site is a working quarry for a long period. The latitude and longitude is 8° 39' 30.09" E 76° 55' 59.49" N

2. *Over burden and left over part of the exposed rock are left as hazardous.*
3. *Adequate precautions are not seen taken in storing explosives.*
4. *There are a few houses vulnerable in the vicinity of the mining area.*
5. *Access road to the mining area is in very poor condition*
6. *No adequate protective fencing was seen in the mining area.*
7. *Project can be recommended subject to conditions of mitigating observations 2-6 above.*

3. The proposal along with the field visit report was placed in 47<sup>th</sup> meeting of SEAC held on 13/14-10-2015. The Committee **deferred** the item for submission of Mining plan as per KMMC Rule 2015.

4. The proposal was considered in the 48<sup>th</sup> meeting of SEAC held on 6/7-11-2015 with documents regarding change of proponent's name. The Committee after examining the Mining Plan, Prefeasibility Report, field inspection report and all other documents submitted along with the Form I application and found that the Mining plan submitted is as per the KMMC Rules 1967 and is necessarily to be revised. Hence the Committee decided to defer the item for the submission of revised Mining Plan as per KMMC Rules 2015. The Committee also decided that the documents submitted by the proponent regarding the registration of the project as a company may be look into by SEIAA.

5. The proposal was considered by SEAC in its 52<sup>nd</sup> meeting held on 8/9-02-2016 on receipt of revised mining plan. The Committee after examining the Mining Plan, Prefeasibility Report, Field Inspection Report and all other documents submitted decided to recommend for issuance of EC subject to general conditions in addition to the following specific condition for mining.

- 1) Storage of explosives should be strictly done in accordance with relevant rules.
- 2) Adequate safety distance shall be provided from the nearby residential buildings.
- 3) Access road to the mining area should be maintained in good condition.
- 4) Adequate protective fencing should be provided at vulnerable points.
- 5) To the extent possible local Biodiversity Management Committee shall be involved in the environmental management/restoration activities.
- 6) Reclamation and eco-restoration should be done by planting native species

6. The proposal was considered by SEIAA in its 51<sup>st</sup> meeting held on 29-03-2016. The Authority found that there is mention in the inspection report that there are a few houses vulnerable in the vicinity of the mining area. It was therefore decided to direct the proponent to get a certificate of no residence within 100 meters of the boundary of the mining area from the Village Officer and to submit to the Authority. CSR amount to be specified. E.C to be granted after the above requirement is satisfied.

7. The proponent has submitted the certificate from Village Officer, Manikkal Village to prove there is no residence within 100 m of boundary of the mining area and also provided the detailed CSR activities.
8. The case was placed before 54<sup>th</sup> meeting of the SEIAA held on 21-06-2016 for appropriate decision on the grant of E.C.; while considering the matter it was noticed that, *The proposal was considered by SEIAA in its 51<sup>st</sup> meeting held on 29-03-2016. The Authority found that there is mention in the inspection report that there are a few houses 'vulnerable' in the vicinity of the mining area. It was therefore decided to direct the proponent to get a certificate of no residence within 100 meters of the boundary of the mining area from the Village Officer and to submit to the Authority. CSR amount to be specified, E.C to be granted after the above requirements is satisfied. Accordingly the proponent submitted the certificate from Village Officer, Manikkal Village that there is no residence within 100 m of boundary of the mining area and he also provided the detailed CSR activities. The Authority held that the report that 'there are a few houses' vulnerable' in the 'vicinity' is ambiguous. It was decided to get clarification of SEAC whether the 'vulnerability' would affect security of the houses, and whether the houses beyond 100meters are 'vulnerable'.*
9. The proposal was considered in the 60<sup>th</sup> Meeting of SEAC held on 28<sup>th</sup> & 29<sup>th</sup> July 2016. SEAC appraised the proposal considering Form I, mining plan and field visit report and all other documents and details provided by the proponent. As per the clarifications sought in the field visit report, the proponent submitted necessary documents.
- SEIAA asked for a clarification from SEAC in its 54<sup>th</sup> meeting held on 21-6-2016 on the issue of perceived "vulnerability" of houses in the vicinity. SEAC discussed the matter and decided to inform SEIAA the rationale of its decision.
- The SEAC felt that nearby houses are slightly vulnerable but vulnerability can be mitigated by providing fencing and therefore insisted the 4<sup>th</sup> item of the specific conditions which can mitigate such vulnerability.
10. 59<sup>th</sup> meeting of SEIAA held on 27<sup>th</sup> September 2016 had considered the matter and observed that: *SEIAA in its 54<sup>th</sup> meeting held on 21-6-2016 asked for a clarification from SEAC on the issue of perceived "vulnerability" of houses in the vicinity. SEAC in the 60<sup>th</sup> meeting held on 28/29-7-2016 felt that nearby houses are 'slightly vulnerable' but vulnerability can be mitigated by providing fencing and therefore insisted the 4<sup>th</sup> item of the specific conditions recommended in the 52<sup>nd</sup> meeting on 8/8-2-2016. Authority resolved to refer the case to SEAC to suggest in terms of the assessed vulnerability, specific measures for mitigation in terms of the recommendations.*
11. The Committee in the 64<sup>th</sup> Meeting of SEAC held on 16<sup>th</sup> and 17<sup>th</sup> November 2016 verified the proposals and found that *if the residential buildings are closer to the mining operations, there is a possibility of damage due to fly rocks. But in this case as stipulated in*

*the KMMR 2015, it has been assured that, there is no such residential building with in 100m. The Village Officer has also furnished a report in this regard. Therefore condition numbers 2 and 4 recommended in the 52<sup>nd</sup> meeting of SEAC are sufficient enough to safeguard against the vulnerability. Hence EC can be issued as recommended earlier.*

12. Sri. Vijayan Nair, Proprietor and authorised signatory of M/s Kunjikuzhi Stones, vide letter no. Nil dated 03-10-2015, informed that they had a strategic change in operation of their project as it is converted as a partnership firm. He informed that Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala being the Managing Partner of the firm will be the authorized person to make necessary correspondence with statutory Authorities including SEIAA, in respect of the project. Copy of partnership deed, Photo ID proof of Sri. Nitheesh Babu, B.S., resolution by partners regarding authorized signatory are submitted.

13. The proposal was again considered in the 62<sup>nd</sup> Meeting of SEIAA held on 23<sup>rd</sup> December 2016. The Authority decided to accept the request of the proponent and to make changes in the application form and related documents wherever it is necessary and to issue EC as recommended by SEAC in its 52<sup>nd</sup> & 64<sup>th</sup> meeting, on condition that all the specific conditions have been strictly implemented before continuing with mining and an affidavit to this effect should be submitted.

14. The Proponent submitted the affidavits stating that the specific conditions No.1, 2, 4, 7 & 8 have been fulfilled before starting / continuing with mining. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Building Stone Quarry project of Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala in Resurvey No. 133/6-1, 134/9-1, 134/9-2, 134/13, 135/2 and 135/4-1 at Manikkal Village, Nedumangadu Taluk, Thiruvananthapuram District for an area of 1.7720 hectares, subject to the specific conditions as recommended by SEAC 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, appended hereto will be applicable and have to be strictly adhered to.

15. 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 Plan as

submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

16. 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.

17. 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, Thiruvananthapuram to take legal action under the Environment (Protection) Act 1986.
- iii. The given address for correspondence with the authorised signatory of the project is Sri. Nitheesh Babu, B. S., S/o Babu Pillai K., 621 (7/426), Vilayil Veedu, Kuthirakulam, Pirappancode P.O., Manickal, Thiruvananthapuram, Kerala.

Sd/-  
**V.S.SENTHIL.I.A.S,**  
**Member Secretary (SEIAA)**

To,

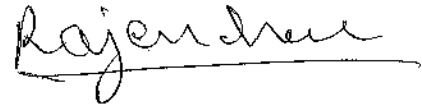
Sri. Nitheesh Babu, B. S.,  
S/o Babu Pillai K., 621 (7/426),  
Vilayil Veedu, Kuthirakulam,  
Pirappancode P.O., Manickal,  
Thiruvananthapuram, Kerala.

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. Director, Mining & Geology, Thiruvananthapuram -4.
4. District Collector, Thiruvananthapuram
5. Secretary, Manickal Panchayat, Pirappankode,, Nedumangad, Thiruvananthapuram - 695607
6. Chairman, SEIAA.

- ✓ 7. Website.
- 8. S/f
- 9. O/c

Forwarded/By Order



Administrator, SEIAA

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 100 m 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 proponent 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<sub>10</sub> and PM<sub>2.5</sub> 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 activate 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 on 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 taking 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 under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.



For Member Secretary, SEIAA Kerala

