



सत्यमेव जयते

***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:** Environmental Clearance for the Building stone quarry project in Sy.Nos. 135/2-3, 135/7, 135/7-1, 135/6, 135/2-2, 135/2, 135/2-1, 167/1, 167/1-1, 167/5, 167/2-2, 167/2-13 of Block 27 at Ezhumattoor Village, Mallappally Taluk, Pathanamthitta District, Kerala by Sri. K.V. Mathew, M/s Kachanathu Minerals and Metals Pvt. Ltd - EC Granted-Orders issued

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**State Environment Impact Assessment Authority, Kerala**

**No. 765/SEIAA/EC4/505/2015**

**dated, Thiruvananthapuram 16.01.2017**

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- Ref:**
1. Application dated 18.02.2015 from Sri. K.V. Mathew, M/s Kachanathu Minerals and Metals Pvt. Ltd
  2. Minutes of the 45<sup>th</sup> meeting of SEAC held on 11/12-09-2015
  3. Minutes of the 52<sup>nd</sup> meeting of SEAC held on 08/09-02-2016.
  4. Minutes of the 59<sup>th</sup> meeting of SEAC held on 11/12-07-2016.
  5. Minutes of the 61<sup>st</sup> meeting of SEIAA held on 30-11-2016

**ENVIRONMENTAL CLEARANCE NO. 09 / 2017**

Sri. K.V. Mathew, M/s Kachanathu Minerals and Metals Pvt. Ltd., Kachanathu Ebenezer Trade Center, V/114, Angadi P.O., Ranny, Pathanamthitta vide his application received on 18-02-2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 135/2-3, 135/7, 135/7-1, 135/6, 135/2-2, 135/2, 135/2-1, 167/1, 167/1-1, 167/5, 167/2-2, 167/2-13 of Block 27 at Ezhumattoor Village, Mallappally Taluk, Pathanamthitta District, Kerala for an area of 4.9808 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.

The proposed project site falls within Latitude 09°25'41.43"N and Longitude 76°42'35.89"E The land use classification as per revenue records is private own land with rock and bushes. The lease area consists of 4.9808 hectares, which is private land. The current proposal is for the expansion quarry with pit area of 2.1174 hectares and mineral specific. Hence no alternate site was examined. The proposed project is for quarrying of 26828 m<sup>3</sup> per Annum of building stone. The expected life of mine will be 10 years. Forest land is not involved in the project. The project does not require approval/clearance under forest conservation act or Wild life protection act or CRZ notification, since there is no declared biosphere reserve, wild life sanctuaries, or tiger sanctuary or migrating corridor, coastal zone etc. in the core zone and 10 km buffer zone. There is no Government order relating to the proposed site. The quarry is not interlinked with a crusher unit located within the complex. As stated by the proponent, there is no litigation pending against the lease area / applicant of the lease area in any court of law. *The proposed site falls in the Moderate category of Seismic Zone i.e., Zone-III. Manimala River (N) flows about 2 km away from the project site.* About 7060 m<sup>3</sup> of over burden and rejected rocks generated as waste during operation of mine. Other details of the project are as follows:

BASIC DETAILS OF THE PROJECT			
File No.		765/SEIAA/KL/505/2015	
Name of project		Environmental Clearance for the Expansion of Building Stone Quarry Project by M/s. Kachanathu Minerals and Metals Private Limited	
Brief description of the project		Building stone quarry in an area of 4.98.08 Hectares at Ezhumattoor Village, Mallappally Taluk, Pathanamthitta District, Kerala State with maximum rate of production 26828 m <sup>3</sup> / annum.	
Category/Subcategory & Schedule		Category 'B' / Subcategory B2 & Schedule 1(a)	
Location Sy no/ district, Taluk/ village etc.		135/2-3, 135/7, 135/7-1, 135/6, 135/2-2, 135/2, 135/2-1, 167/1, 167/1-1, 167/5, 167/2-2, 167/2-13 of Block 27, Ezhumattoor Village, Mallappally Taluk, Pathanamthitta District, Kerala State	
GPS co-ordinates		Latitude (N)	09°25'41.43"N
		Longitude (E)	76°42'35.89"E
for Mining projects	Extent of area (in hectares)	4.98.08 Ha	
	Minimum and maximum height of excavation (MSL)	200 m & 150 m	
	Life of mine proposed	10 Years	
	Ultimate depth of mining (in MSL)	50 m MSL	
	Distance from the adjacent quarry	0.3 km	
	Capacity of production	26828 m <sup>3</sup> /annum (Max. rate of production)	

	Details of project cost	486.70 lakhs
	Financial statement including funding source and details of insurance	Own Land – 3.93.08 hectare, Lease Land – 1.05.00 hectare & funding will be taken care by M/s. Kachanathu Minerals and Metals Private Limited
	CRZ recommendations	Not Applicable
	Forest clearances	
	Does it attract violation proceedings	No
EnvmtMgmt plan / Eco restoration plan (brief details)	<b>MANAGEMENT PLAN:</b>	
	<b>Air pollution</b>	<ul style="list-style-type: none"><li>➤ Water sprinkling will be done by water tanker fitted with water pump to reduce generation of dust during loading.</li><li>➤ Dust masks will be provided to operators and other persons near loading.</li><li>➤ Green belt will be developed around the mine lease boundary in order to reduce spread of air pollution and plantation will be done around mine office, haul road, etc to control dust pollution.</li></ul>
	<b>Water pollution</b>	<ul style="list-style-type: none"><li>➤ No waste water generation is envisaged during the mining process. The domestic effluent generated from the mine office, will be disposed off in soak pits via septic tanks.</li><li>➤ Water will be stored in the pit required for irrigation of plants, spraying water on roads and other miscellaneous purposes by diverting direction of the garland drain towards pit when required</li></ul>
	<b>Noise</b>	<ul style="list-style-type: none"><li>➤ Green belt will be developed around the mine lease boundary in order to reduce noise pollution in the surroundings.</li><li>➤ Controlled Blasting will be carried out to minimize noise generation. Blasting will be done in day time.</li><li>➤ Drilling will be done with sharp drill bits, which reduces generation of noise during drilling.</li></ul>
	<b>Solid Waste Management</b>	<ul style="list-style-type: none"><li>➤ Solid waste will be disposed or utilized for filling excavated areas, road construction and artificial soil for greenhouse pot trails for grass &amp; tree growth at mining area.</li></ul>
	<b>Eco restoration</b>	<ul style="list-style-type: none"><li>➤ 30 Trees / annum will be planted at 5m interval in an area of 0.76.30 Ha. The lease boundary and avenues as well as over non active dumps are also used for greenbelt development. The main aim of the greenbelt development is to restore the ecosystem to its original form to a maximum possible extent.</li></ul>

<b>ABOUT THE PROJECT</b>	
<b>Environmental parameters considered</b>	<b>Description</b>
<b>WATER</b>	
Water requirement & sources	Total water requirement – 6 KLD. (Domestic and Drinking Purpose – 2 KLD Dust Suppression and Green Belt – 4 KLD) Open Well at the site will be the source of water
RWH units proposed	Existing pit will be utilized as rain water reservoir.
Facilities for liquid waste treatment	Domestic wastewater generated will be treated through the septic tank followed by soak pit
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses
Water quality meeting requirements	Water quality in the study area is meeting the requirements prescribed by the PCB.
Does it have provisions for use of recycled water	No
<b>LAND</b>	
Proximity to forest lands	None within the study area.
Access road to the site – Width & Condition	Width of the access road to site is 8m
Storage of explosives /hazardous substances	Explosives will be stored as per the Indian Explosive Act 1958 & explosive rules 1983.
Facility for solid waste mgmt	It is proposed to stack initially along the lease boundary and will be backfilled finally within the mine lease area
Topographic features/slope	Topography of the area is hilly terrain.
Proneness of the area for landslides	Site area fall under Seismic Zone III. It is not a landslide prone area.
Significant land disturbance resulting in erosion, subsidence & instability	Due to excavation, significant land disturbance will occur.
Top soil, overburden etc.	Over burden 7060 m3 will be generated during the mining period. It will be stacked separately & backfilled at the end of life of mine.
<b>AIR</b>	
Air quality meeting requirements	Water sprinkling and other mitigation measures will be provided during mining activity to control the air emissions
Noise level meeting requirements	Adequate mitigation measures will be provided to control the noise emissions during blasting & mining activity.
Likely emissions affecting environment	There will not be any other major emissions
<b>ENERGY</b>	
Energy requirement	Total power requirement of 75 KW for operations of equipment will be drawn from Diesel Generator

Energy sources	Diesel Generator		
Extent of usage of alternative energy resources	No		
BIODIVERSITY			
Presence of any endangered species or red listed category	There are no endangered or rare species in the area		
Loss of native species and genetic diversity	There will not be any loss of native species of genetic diversity as the already exists and continuation of the same will not affect or loss of native species in general.		
Likely displacement of fauna	The proposed mining activity does not have any displacements of fauna		
Any introduction of alien / invasive species	The proposed mining activity does not introduce any alien species.		
SOCIAL ASPECTS			
Proximity to nearest habitation	Ezhumattoor – 1 km, S		
CSR related to the project/ allocation/ time frame (details mandatory)	Proposed common CSR Budget		
	Sl.no	Particulars	Amount Rs. In lakhs
	1	Renovation of old buildings of Ezhumattoor Govt. Hr. Sec. school	2.5
	2.	Provision of books and Sanitary facilities (Toilets, Drinking water facilities, etc.) to Ezhumattoor Govt. Hr. Sec. school	3.5
	2	Repairing of damaged Ezhumattoor-Vaipoor Road (Panchayat road)	2.5
	3	Organizing Health camps	1.5
	Total		10.0
GENERAL			
Does it propose environment management plan	Chapter 4 of Pre Feasibility Report.		
Does it have eco restoration programmes	30 Trees / annum will be planted at 5m interval in an area of 0.76.30 Ha. The lease boundary and avenues as well as over non active dumps are also used for greenbelt development. The main aim of the greenbelt development is to restore the ecosystem to its original form to a maximum possible extent.		
Biomedical waste management	Not Applicable		
E-waste management	Not Applicable		
Sufficiency of parking spaces/ traffic management	The existing transport facilities will be utilized for the proposed project. The proposed project does not involve any closure or diversions of existing transport routes.		

Litigation/court cases, if any, against the project (provide details)	No litigation / Court case against this quarry.
Right & nature of ownership of land	Own land of 3.93.08 hectare & Lease land of 1.05.00 Hectare
Is the property forest land/govt. land/own land	Own Patta land
Details of Authorised Signatory	Mr. K.V. Mathew M/s. Kachanathu Minerals and Metals Pvt. Ltd. Kachanathu Ebenezer Trade Center, V/114, Angadi P.O., Ranny, Kerala – 689 674.

2. This application was placed before 45<sup>th</sup> meeting of SEAC held on 11/09/2015 and 12/09/2015. The Committee decided to defer the item for field visit by subcommittee concerned and to direct the proponent to submit more realistic projects under social responsibility. According to that proponent submitted the CSR.

Field visit to the Quarry project site of M/S Kachanathu Minerals and Metals Pvt Ltd, was carried out on 24.10.2015 by the sub-committee of SEAC, Kerala, comprising Dr.Keshav Mohan and Sri. John Mathai. The representatives of the proponent were present at the site at the time of site visit. This is the second visit to the site necessitated by the absence of the representatives of the proponent at the time of earlier visit. The field inspection details are given below.

*"The project is located at about 0.5 km NE of Ezhumattoor. The quarry of Sri.Ravindran is located to the west within 500 m but the total area is less than 25 ha (B2 category). This quarry lease area of 4.98 ha falling in own land occupy the south facing slopes of an elevated ridge, part of which has been exploited. The elevation of the lease area ranges from 170m in the rock exposed hillock to 130 m in the lower southern part. The rock type is weakly foliated charnockite with prominent sub vertical joints. A thin dyke is also noted in the site. Pockets of weathered rock with about 1m thick over burden (OB) and top soil is seen interspersed with rock out crops in the upper part where initial benches have been formed. In the central lower part old workings with steep cuttings are seen. The OB is now used for reclamation of old pits. The entire storm water from the area flows as sheet flow to the south and collected in the pits from where it is let out into the trenches formed in the rubber plantation area of the proponent for clarification and disposal. RWH structures are also not seen excepting for old quarry pit. Manimalariver is seen at a distance of 2.5 km to the north but the stream flow from the site is to west. Rubber is the dominant land use. Dwelling units are not seen in the vicinity of 200 m. There is an associated crusher unit with the quarry. Canteen and limited accommodation is made available to the workers. The approved mine plan shown to the subcommittee did not have any date and reference to the 2015 rules.*

*Based on an overall evaluation of the site, the quarry operations may be recommended with following conditions:*

- 1. The mine plan must have a date of approval with reference to the 2015 mineral concession rules.*
- 2. The proponent must submit the Cadastral map of the lease area with subdivisions clearly indicating the area proposed to be quarried*
- 3. Fencing should be provided all around the lease area.*
- 4. RWH structure should be provided in the site. An old pit located on the lowest level can be used for this purpose. Clarified water from the upper slope should be channelised into it.*
- 5. Ultimate depth of mine to be limited to the permissible level of deepening by benches.*
- 6. OB burden must be stored in a designated place at a lower elevation after the restoration of existing pits.*
- 7. The CSR need redrafting with inclusion of felt needs of the locality.*

Other items from general conditions like a) Appropriate sign boards should be displayed, b) The blasting time must be displayed and strictly adhered to, c) The PPV values must be less than 10 mm/sec, d) Steps to be taken to limit fly rock to within the lease area. Rock fragments should not fall anywhere outside the lease area, e) Dust suppression mechanism must be in place f) A belt of trees (Vegetation belt) should be maintained all around the quarry but must be maintained till the entire life of quarry, g) A separate small plot to be maintained in the premise to preserve rare and endemic species, if any, listed in the biodiversity assessment etc.

3. The proposal was considered in the 52<sup>nd</sup> Meeting of SEAC, held on 8<sup>th</sup> & 9<sup>th</sup> February, 2016. The Committee deferred the item for submission of Mining Plan as per KMMC Rule 2015.
4. On submission of the mining plan the proposal was again considered in 59<sup>th</sup> meeting of SEAC held on 11<sup>th</sup> & 12<sup>th</sup> July 2016. The Committee appraised the proposal based on Form 1, Pre-feasibility Report and Mining Plan and recommend to issuance of EC subject to the general conditions and the following specific conditions.

1. Fencing should be provided all around the lease area.
2. RWH structure should be provided at the site. An old pit located on the lowest level can be used for this purpose. Clarified water from the upper slope should be channelized into it.
3. Over burden must be stored in a designated place at a lower elevation after the restoration of existing pits.

The proponent agreed to set apart Rs 5 lakhs (non-recurring) and 5 lakhs per annum (recurring) for next 5 years for CSR activities for the welfare of the local community in addition to the 1% of the profit towards the KSBB. The proponent also agreed to spend this amount in consultation with the local Panchayath.

5. The Authority in its 61<sup>st</sup> Meeting held on 30/11/2016 decided to accept the recommendation of SEAC to issue Environmental Clearance on condition that valid permit should be produced to SEIAA and also that the above specific conditions are fulfilled before continuing with mining. An Affidavit to this effect should be submitted by the project proponent.

6. The proponent has submitted the valid permit certificate and Affidavit for specific conditions mentioned in para 4. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Building Stone Quarry project of Sri. K.V. Mathew M/s Kachanathu Minerals and Metals Pvt. Ltd in Survey No. 135/2-3, 135/7, 135/7-1, 135/6, 135/2-2, 135/2, 135/2-1, 167/1, 167/1-1, 167/5, 167/2-2, 167/2-13 of Block 27, Ezhumattoor Village, Mallappally Taluk, Pathanamthitta District, Kerala for an area of 4.9808 Hectares, subject to the specific conditions as recommended by SEAC in para 4 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.

7. 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 9 (EMP) Chapter 10 (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.

8. 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.

9. 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, Pathanamthitta to take legal action under the Environment (Protection) Act 1986.



- iii. The given address for correspondence with the authorised signatory of the project is Mr. K.V. Mathew, M/s. Kachanathu Minerals and Metals Pvt. Ltd, Kachanathu Ebenezer Trade Center, V/114, Angadi P.O., Ranny, Kerala – 689 674.

Sd/-

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

To,

Sri. K.V. Mathew,  
M/s Kachanathu Minerals and Metals Pvt. Ltd.,  
Kachanathu Ebenezer Trade Center,  
V/114, Angadi P.O., Ranny,  
Pathanamthitta – 689 674

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, Pathanamthitta
5. Secretary, Ezhumattoor Grama Panchayat, Mallappally Taluk., Pathanamthitta-689 586
6. Chairman, SEIAA.
7. Website.
8. S/f
9. O/c



Forwarded/By Order

*Rajendar*

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<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.



*Rajendra*

For Member Secretary, SEIAA Kerala