



सत्यमेव जयते

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

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

**Sub:** Environmental Clearance - Application for Environmental clearance for quarry project in Sy. Nos. 178/6, 178/7A, 178/7B3, 178/7B2, 178/7B1, 179/1-1, 179/8A1, 179/8A2, 179/8B1, 179/8B2, 179/8B3, 179/8A3/180/1-1, 180/1-2, 183/2-1 and 180/2-5 at Maneed Village & Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala by M/s R.M. Rocks & Sand (P) Ltd. - E.C- Granted

### **STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**

No. 420/SEIAA/EC3/2969/2014

*dated, Thiruvananthapuram 02-04-2016*

- Read:-**
1. Application dated 05.05.2015 from Sri. Rohith Mathai Rojer, Director - M/s R.M. Rocks & Sand (P) Ltd., G-203, Purappadathil, Panampilly Nagar, Kochi, Kerala-682036.
  2. Minutes of the 33<sup>rd</sup> meeting of SEAC held on 2/3-09-2014.
  3. Minutes of the 41<sup>st</sup> SEAC held on 16/17-06-2015.
  4. Minutes of the 40<sup>th</sup> meeting of SEIAA held on 03/04-08-2015.
  5. Minutes of the 46<sup>th</sup> meeting of SEAC held on 29/30-08-2015.
  6. Minutes of the 44<sup>th</sup> meeting of SEIAA held on 13-11-2015.

### **ENVIRONMENTAL CLEARANCE NO. 40/2016**

Sri. Rohith Mathai Rojer, Director - M/s R.M. Rocks & Sand (P) Ltd., G-203, Purappadathil, Panampilly Nagar, Kochi, Kerala-682036 vide his application dated 24.05.2014, has sought Environmental Clearance under EIA Notification, 2006 for the proposed Expansion of Building Stone Quarry in Survey Nos. 178/6, 178/7A, 178/7B3, 178/7B2, 178/7B1, 179/1-1, 179/8A1, 179/8A2, 179/8B1, 179/8B2, 179/8B3, 179/8A3/180/1-1, 180/1-2, 183/2-1 and 180/2-5 at Maneed Village & Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala for an area of 1.0844 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) dtd. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. The proposed project site falls within 9°54'58.6" N to 9°54'52.42" N latitude and 76°27'27.67" E to 76°27'18.04" E longitude. As per the application submitted, the project area is private patta land and no Forest land is involved in the project. The proposed project is for quarrying of 100000 MTA of building stone from an area of 2.8805 hectares of land. The expected life of mine will be 8 years. The mining will be done by mechanized open cast method. Major water body near the study area is Muvattupuzha river - 1.5km E. The proponent has stated that, there is no litigation pending against the lease area / applicant of the lease area in any court of law. The total cost of the project is said to be Rs.6.0 Cr.

#### **BASIC DETAILS OF THE PROJECT**

Name of project		M/s R.M. ROCKS & SAND (P) LTD.	
Brief description of the project		Quarry project with an area of 2.8805 ha. & production capacity of 1,00,000 MTA	
Category/Subcategory & Schedule		Category B/B2 & Schedule 1 (a)	
Location Sy no/ district, Taluk/ village etc.		Survey Nos. 178/6, 178/7A, 178/7B3, 178/7B2, 178/7B1, 179/1-1, 179/8A1, 179/8A2, 179/8B1, 179/8B2, 179/8B3, 179/8A3, 180/1-1, 180/1-2, 183/2-1 & 180/2-5, Maneed Village & Panchayat, Muvattupuzha Taluk, Ernakulam District, Kerala.	
GPS co-ordinates		Latitude (N)	9°54'58.36" to 9°54'52.42"
		Longitude (E)	76°27'27.67" to 76°27'18.04"
for Mining projects	Extent of area (in hectares)		2.8805 ha.
	Minimum and maximum height of excavation (MSL)		40 m. MSL and 60 m. MSL
	Life of mine proposed		8 years
	Ultimate depth of mining (in MSL)		40 m. MSL
	Distance from the adjacent quarry		Within 500 m.
	Capacity of production		1,00,000 MTA
	Details of project cost		Rs. 6 Crores
	Financial statement including funding source and details of insurance		Source of fund :- Loan from Bank Insurance: - Insurance to the quarry workers provided through the insurance company.

CRZ recommendations		Not applicable
Forest clearances		Not applicable
Does it attract violation proceedings		No
Env't Mgmt plan/ Eco restoration plan (brief details)	At the end of life of mine, excavated pit will be backfilled and reclaimed & rehabilitated by plantation with native species so as to restore the natural eco-system.	
ABOUT THE PROJECT		
Environmental parameters considered		Description
WATER		
Water requirement & sources	The total water requirement is about 16 KLD in which 1 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary unit (Crusher Unit) and 3 KLD for plantation purposes and will be sourced from storm water pond. The source of water is from storm water pond/ well.	
RWH units proposed	Yes, Rain water collection pond	
Facilities for liquid waste treatment	Not applicable	
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 meeting requirements after the treatment of water (filtration, disinfection & sedimentation).	
Does it have provisions for use of recycled water		No
LAND		
Proximity to forest lands	None within the area	
Access road to the site –Width & Condition	8 m. tarred road, N	
Storage of explosives /hazardous substances	Explosives will be stored as per Explosives Act/Rules.	
Facility for solid waste mgmt	The municipal solid waste will be suitably disposed.	
Topographic features/ slope	The topography of the lease area is hilly area covered with native trees, climbers, grass, shrubs, herbs etc. Sectional details are :- Section 'D – D' = 6.7° Section 'B – B' = 8.2° Highest level = 60 m MSL Lowest level = 50 m MSL	
Proneness of the area for landslides	No	

Significant land disturbance resulting in erosion, subsidence & instability		No			
Top soil, overburden etc.		Top soil – 2,880 cu.m. Overburden – 5,761 cu.m.			
<b>AIR</b>					
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.				
<b>ENERGY</b>					
Energy requirement	The total power requirement will be 75 kW for compressors, which will be drawn from diesel engine.				
Energy sources	From diesel engine.				
Extent of usage of alternative energy resources		No			
<b>BIODIVERSITY</b>					
Presence of any endangered species or red listed category		No			
Loss of native species and genetic diversity	For the quarrying activity all of native tree species, shrubs, herbs, climber etc. existing at site will be cleared.				
Likely displacement of fauna		No			
Any introduction of alien / invasive species	Invasive species (Shrubs) :- <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. <i>Lantana camara</i> L. Invasive species (Climbers) :- <i>Mikania micrantha</i> Kunth <i>Mimosa diplotricha</i> var. <i>diplotricha</i>				
<b>SOCIAL ASPECTS</b>					
Proximity to nearest habitation		160 m. , NE			
CSR related to the project / allocation / time frame (details mandatory )	A detailed study on social status of the project site surroundings & need base study on proposed CSR activities were carried out. The summary of the report are:-				
	Sl. No	Areas of Intervention	No. of Intervention	Recurring Expenses	Non Recurring Expenses
	(in Rs.)				
	1	Education	06	3,00,000	4,23,000
	2	Health	02	2,15,000	40,000
	3	Community Development	02	-	45,000
<b>Total</b>		10	5,15,000	5,08,500	

GENERAL	
Does it propose environment management plan	Yes
Does it have eco restoration programmes	Yes, The year wise programme of afforestation for the life of mine, about 1,500 trees will be planted. The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species.
Sufficiency of parking spaces/ traffic management	Yes
Litigation/court cases, if any, against the project (Provide details)	Nil
Details of Authorised Signatory	Sri. Rohith Mathai Rojer, Director - M/s R.M. Rocks & Sand (P) Ltd., G-203, Purappadathil, Panampilly Nagar, Kochi, Kerala-682036.
Details of NABET approved EIA consultant Organization	M/s Enkay Enviro Services Pvt. Ltd., 24-B, Dadu Marg, Gopal Bari, Ajmer Road, Jaipur, Rajasthan-302001. QCI List at Sr. No. 43 as per NABET list of accredited consultant organizations, Rev. 21A on 19 <sup>th</sup> Aug., 2014.
<p>3. The project proponent attended the 33<sup>rd</sup> meeting of SEAC held on 2-3 Sept. 2014 and the consultant made a brief presentation of the project. The Committee directed the proponent that proper fencing should be provided around the abandoned quarries and the abandoned quarry has to be reclaimed. As stated by the proponent, the nearby dwelling unit (wall of the building) is at a distance of 105m from the boundary of the quarry. The proponent informed that there is only one pond in the proposed project site and that there is no litigation/complaint pending against the present project.</p> <p>4. Further to the information provided by the proponent on the queries raised by the Committee, the proposal was recommended for environmental clearance stipulating the general conditions for mining projects and with the specific condition that the already abandoned quarries should be reclaimed. 35<sup>th</sup> meeting of SEIAA held on 9<sup>th</sup> April 2015 considered the case and deferred it for approved mining plan for appraisal by SEAC as per the Kerala Minor Mineral Concession Rules -2015. The case was again placed before 41<sup>st</sup> SEAC held on 16/17-06-2015 for further appraisal.</p> <p>5. The Committee appraised the proposal based on the Mining Plan, Prefeasibility Report, and all other documents submitted along with the Form I application and noticed</p>	



that the EC is requested for an area of 2.8805ha of land out of the total area of 4.170ha. The expected life of the mine is 8years. The nearby dwelling unit is situated at a distance of 104m from the boundary of the quarry. The lowest elevation of project is 50m above MSL and highest elevation is 60m above MSL. The committee decided to concur with the decision of the 33<sup>rd</sup> meeting of SEAC and recommended the issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects.

1. The already abandoned quarries should be reclaimed.
2. On the closure of mine at least 10% of the mined area should be formed into a water body by harvesting rain water.
3. To the extent possible local Biodiversity Management Committee should be involved in the environmental management/restoration activities.

6. The SEIAA as a general rule has adopted that the proponent should submit certificate of no cluster situation and buffer distance of 200 m from forest areas. 40<sup>th</sup> meeting of SEIAA held on 03/04 Aug 2015 considered the matter and decided to return the case to SEAC for site inspection and recommendations on that basis. In connection to that SEAC conducted the site visit on 17.09.2015 by Sri. P. Sreekumaran Nair and Sri. John Mathai.

7. The project is an old quarry located at about one and a half km east of Cheerakattupara on Thruvaniyoor- Maneed road. This quarry area falling in own land covering an area of 2.88 ha forms part of a relatively flat terrain with very gentle slope to southeast. The rock type is weakly fractured Charnockite suite of rocks with NW-SE foliation. Major faults are not observed in the site. All around several abandoned quarry pits are seen outside the lease area in waterlogged condition. The quarry of C.P. Prathapan for which E.C. has been issued lies on the northern side. In the lease area steep cuttings are seen adjacent to old workings but the height is limited to less than 10m. Abandoned part of the quarry pit that cannot be quarried further has been filled up and levelled to existing ground level. As the area falls in an old quarry zone, top soil and OB is limited to isolated undeveloped pockets. The depressions are presently covered with rainwater but at shallow level of less than 2m. Being a rocky area with very low relief, streams are not seen in the site. There is no perceptible drainage in the quarry area.

Rainwater is collected in the depressions and pumped out for agriculture purposes. Out flow is not seen. Rubber plantation is the dominant land use in the area. Floral biodiversity is not observed as the quarry area is mostly cleared of vegetation. Recently formed benches are seen in the working faces. Haulage road is present but not provided with hard surfacing. The approach road is flanked by deep pits of old workings. Dwelling units are not seen within 100m. The water demand of the quarry can be met from the old quarry pit which acts as a RWH structure. A crusher unit and office building is seen adjacent to the lease area. Based on an overall evaluation of the site, the quarry operations may be recommended with following conditions:

1. Fencing should be provided all around the lease area.
2. The limited over burden and other quarry waste must be stored in the designated places for future restoration of the land and provided with protective support walls.
3. The old pit acts as RWH structure with no drainage outside. An over flow may done in the form of a lined drain to the east. The water from the RWH structure should be let out only after clarification/desiltation for which a suitable structure is essential at the outlet.
4. Considering the topography, garland drains need not be insisted upon.
5. The main haulage road formed in the quarry must be maintained in motorable condition. The approach road to the quarry from the main road should also be maintained in good motorable condition with fencing on both sides as it is flanked by pits of old workings.
6. Ultimate depth of mine should not be below the bed level of Muvattupuzha river which is at ~10m a.m.s.l.
7. 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) The promised activity under CSR may be added.

The above report was considered by SEAC in its 46<sup>th</sup> meeting held on 29/30-09/2015, and further recommended with the following additional specific condition;

1. Fencing should be provided all around the lease area.
2. The limited over burden and other quarry waste must be stored in the designated places for future restoration of the land and provided with protective support walls.
3. The water from the RWH structure should be let out only after clarification/desiltation for which a suitable structure is essential at the outlet.
4. The main haulage road formed in the quarry must be maintained in motorable condition. The approach road to the quarry from the main road should also be maintained in good motorable condition with fencing on both sides as it is flanked by pits of old workings.
5. Ultimate depth of mine should not be below the bed level of Muvattupuzhar river which is at 10m amsl.

8. The recommendation of SEAC were further considered by SEIAA in its 44th meeting of SEIAA held on 13-11-2015. It was observed that, the 46th meeting of SEAC held on 29/30-9-2015 recommended the project subject to specific conditions. There is no proper impact assessment of loss of biodiversity and undertakings on mitigation measures. CSR activities should conform to such compensatory ecological activities. The proponent to be asked to submit details in these matters, before considering the case for issue of E.C.

9. On 10/09/2015, Sri. Basil K. Varghese, Blayil Veedu, Palace Square, Chottanikkara put in a petition to the Chairman SEIAA, that 75 cents of Land comprised in Sy. No. 178/7B/2, 178/7B/3 and 178/7A is under his ownership and possession as per



sale deed No. 1989/2002 of SRO, Piravom. Right of way of 12 feet has also been incorporated in the deed. But the road to his plot has been encroached upon by the project proponent, and excavated up to 6.5 m making it not fit for use. There is a civil case in this regard in the Munisiff's Court, Muvattupuzha. He requests that in view of the civil case and encroachment of his land, functioning of the quarry may be stopped. It is seen that all the above 3 Survey Nos. are included in the Mining area. Whether the right of way has been appropriated and destroyed by Mining is in a civil dispute /criminal matter to be adjudicated elsewhere.

10. However as it had been recorded in Form I application submitted by the proponent that no litigation is pending is regard to the land in which the project is to be set up. Authority decided to address Sri. Basil K. Varghese to submit a copy of the injunction order if any of the Munisiff's Court, Muvattupuzha. E.C. may be issued after the above undertakings/ documents are received and subject to the condition that if there is any court order, that will prevail. Accordingly the proponent submitted biodiversity loss assessment report, mitigation measures and CSR activities conforming to the ecological loss as estimated and a sworn affidavit to the effect that the compensatory eco-restoration works will be implemented and CSR activities as committed including such compensatory eco- restoration measures, will also be implemented. He has also produced copy of the judgment dated 08/03/2016 of Munisiff's Court, Moovattupuzha dismissing O.S. No. 418/2011 filed by Sri. Basil. K. Varghese, due to absence of the plaintiff on the day when the case is included in the list for trial.

11. Environment Clearance under the EIA notification 2006 is therefore granted to the quarry project of M/s R.M. Rocks & Sand (P) Ltd, G-203, 1<sup>st</sup> floor, Cochin-682036 in Sy. No. 178/6, 178/7A, 178/7B3, 178/7B2, 178/7B1, 179/1-1, 179/8A-1, 178/8A-2, 179/8B-1, 179/8B-2, 179/8B-3, 179/8-A3, 180/1-1, 180/1-2, 183/2-1 and 180/2-5 at Maneed Village, Moovattupuzha Taluk, Ernakulam District, subject to the specific conditions in paras 5 and 7 above, the general conditions on mining as appended and the eco-restoration measures and CSR activities as agreed to be undertaken.

12. 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 Chapter 2 to 4 of the Pre-Feasibility report mining features and environment management



plan in Chapter 4 (mining), Chapter 5 (blasting), Chapter 6 (mine drainage), Chapter 7 (stacking of rejects and disposal of wastes), Chapter 11 (Environment Management Plan) and the entire progressive mine closure plan as submitted will be deemed to be part of this proceedings as if incorporated herein. Also the undertaking on CSR activities and eco- restoration programmes will be deemed to be conditions to be fully implemented by the proponent.

13. Validity of the environmental clearance will be five years from the date of this clearance, subject to earlier review in the event of violation or non- compliance of any of the conditions stipulated herein, or undertakings given by the proponent.

14. Compliance of the conditions herein will be monitored by the Authority its agencies 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, Ernakulam to take legal action under the Environment (Protection) Act, 1986.

14. The given address for correspondence with the authorised signatory of the project is Sri. Rohith Mathai Rojer, Director - M/s R.M. Rocks & Sand (P) Ltd., G-203, Purappadathil, Panampilly Nagar, Kochi, Kerala-682036

Sd/-

P. MARA PANDIYAN, I.A.S.

Member Secretary, SEIAA

&

Addl. Chief Secretary

Environment & Forests Department

Government of Kerala.

To,

Sri. Rohith Mathai Rojer,  
Director - M/s R.M. Rocks & Sand (P) Ltd.,  
G-203, Purappadathil,  
Panampilly Nagar, Kochi,  
Kerala-682036.

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 District Collector, Ernakulam
4. Director, Mining & Geology, Thiruvananthapuram-4.
5. Member Secretary, KPCB, Pattom, Thiruvananthapuram-4
6. The Secretary, Maneed Grama Panchayat, Panchayat Shopping Complex Building, Maneed, Ernakulam (Dist.)
7. Chairman, SEIAA, Kerala
8. Website, S/f, O/c

Forwarded/ By Order



G. Rajeev-1760  
Administrator  
SEIAA  
State Environment Impact Assessment Authority

G. RAJEEV  
Administrator

Received  
7/4/16  
Rohi M. Mahai Rojas



GENERAL CONDITIONS (for mining projects)

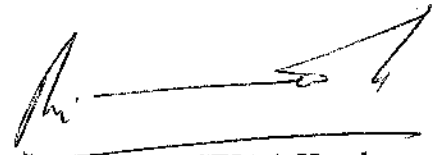
1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. Suitable avenue trees should be planted along 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 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 up stream and down stream 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.



  
Member Secretary, SEIAA Kerala

