

# Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: SEIAA-Environmental Clearance for the proposed building stone quarry project in Re Survey Nos. 168, 282, at Anakkayam Village, Ernad Taluk, Malappuram District, Kerala by Sri. K. Muhammed -- Granted - Orders is sued.

### STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, KERALA

## No. 1160/EC/SEIAA/KL/2017

### Dated, Thiruvananthapuram 17.03.2018

Ref: 1. Application received on 04.12.2017 from Sri. K. Muhammed, Kalodi House, Kallarmangalam P.O. Malappuram – 676553

- 2. Minutes of the 83<sup>rd</sup> meeting of SEAC held on 20<sup>th</sup> & 21<sup>st</sup> December, 2017
- 3. Minutes of the 86th meeting of SEAC held on 27th February 2018.
- 4. Minutes of the 81st meeting of SEIAA held on 08th March 2018.
- 5. Affidavir dt. 16.03.2018 from Sri. K. Muhammed

## **ENVIRONMENTAL CLEARANCE NO. 39/2018**

Sri. K. Muhammed, Kalodi House, Kallarmangalam P.O, Malappuram – 676553, vide his application received on 04.12.2017, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Re survey Nos. 168, 282, at Anakkayam Village, Ernad Taluk, Malappuram District, Kerala for an area of 5.2675 Ha. 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 Notification No.S.O.141 (E) dt.15.01.2016 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

# Details of the project as furnished by the applicant are as follows;

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

PROJECT DETAILS			
File No.	1160/EC/SEIAA/KL/2017		
Name/Title of the	Building Stone Quarry of Mr. K. Muhammed		
project			
Name and address of project proponent.	K. Muhammed Kalodi (House) Kallaramanagalam (P.O) Malappuram-676 553. Mob. No. 9746639001		
Owner of the land	As per the records, the entire area is a private land owned by Inthiyas Muhammed, Zakkira Banu K. V. Dilshad Banu K.V and Faisal Babu, Who have given consent to Mr. K. Muhammed		
Survey No. District/Taluk/ and Village etc.	Re-Survey No- 168,282 in Anakkayam Village, Ernad Taluk, and MalappuramDistrict		
Category/Sub Category and Schedule	B2 Category Schedule No. I(a) As per O.M. No. L-11011/47/2011-IA.II (M) dated 18.05,2012.		
Details of period of lease or permit with number including the beginning and expiry date of lease/permit period (Copy to be attached)	Sy. No. 282 Permit no. 12/2015-16/GR/DOM/M-908/2015 Dated on: 22/05/2015 Expiry Date: 21/05/2016  Sy. No. 168 Permit no. 67/2015-16/GR/DOM/M-1428/2015 Dated on: 21/10/2015 Expiry Date: 20/10/2016		
Present Status of the project	Not Working		
Date & Year of starting the work of the quarry project.	23/05/2015		
Whether the quarry is working at present or not?	No		
If stopped working since when?	20/10/2016		
Date of submission of Application	01/1 1/2017		
Brief description of the project.	Open cast Semi mechanized mining, B2		

	11°5°37.94" N to 11°5°45.37" N	
GPS Co-ordinate	76°8'17'.36"E to 76°8' 31.49" <b>E</b>	
	K. Muhammed	
Details of Authorized	Proprietor	
Signatory and address	Kalodi (House)	
for correspondence	Kallaramanagalam (P-O)	
-		
	Malappuram-676553.	
	Mob. No. 974 663900 1  LAND DETAILS	
Extent of area in	5,2675 Ha	
hectares	31507 3 TAU	
Is the property forest		
land/Govt, land/own	Own Land	
land/patta land		
Quantity of top		
soil/over burden	Top soil- 60,815.25 tonnes	
l .	Over burden- 1,36,480 tonnes	
produced and managed	11°5°37.94" N to 11°5°45.37" N	
Latitude and Longitude	76°8′17.36″E to 76°8′31.49″E	
	The topography of the lease area is hilly. The highest elevation of the	
Topography of land and	lease area is 150 m MSL and lowest is 55m MSL.	
elevation	lease area is 150 m MISL and lowest as com MISL.	
·	Considering the stability of rocks, ultimate pit slope proposed is 45°	
Slope analysis	Considering the stability of recks, artificate paragree proposed to te	
Will there be any		
significant land		
disturbance resulting in	Nil	
soil erosion, subsidence		
& natural drainage.		
Access road to the site	7.5 m Access Road	
width and condition		
Will there be any		
adverse impact on the	No	
aesthetics of the		
proposal site		
	MINING DETAILS	
Minimum and		
Maximum height of	Highest 150 m above MSL	
excavation.	Lowest 55m above MSL	
excavation.		
Life of mine proposed.	12 Years	
Underground mining if	Not applicable	
any proposed	Not appricable	
Method of Mining	Open cast mining	
Distance from the		
adjacent quarry	10 m	
Cluster condition if any		
Has "No cluster		
certificate" submitted?	d? Yes	
Distance from nearby		
habitation	116 m towards South	
Distance from nearby		
forest, if applicable	No forest land within the 10 km Radius from the quarry.	
Distance from protecte	No protected area, Wildlife Sanctuary, National Park with in 15 km radius	
Distance north protecte	a 1 140 processed at our attention sections y, 140 processed in the section of th	

77711 4110		
area, Wildlife	from the mine si	te.
Sanctuary, National		*
Park etc.		
Distance from nearby	Kadalundi Rive	r- 1 km
streams/rivers/National	SH 39 - 3 Km	1111
Highway and Roads		
Is ESA applicable? If so	Not applicable	
distance from ESA limit		
Has approved mining		
plan, prepared by RQP	Yes	
submitted?		
Capacity of production		
in TPA	1,00,000 MT	
		oposed to work with conventional open cast with bench
Details of mining		vith semi - mechanized mode of operation based on the
process		d, taking into the consideration of geological parameters
Product		te body, the quarry pit will be so designed such that the
	height of the ben	ich is kept about 5.00 m max.
T1	·	S OF PROJECT COST
Land cost	1 Core	
Plant and Machinery	50 Lakhs	
Total Cost	1.5 Core	
Financial Statement		
including funding		lank Loan(Co-Operative Urban Bank, Randathani - 43
source and details of	Lakhs)	
insurance etc.		
	Air Pollution	No significant air pollution is expected as the mining
		operation is in wet stage. However during the summer
		water spraying suppresses the dust on roadways. The
		improvement of haulage road is the main remedy to
	-	suppress dust during transportation. Water sprinklers
		are provided to check the dusty road in the mining area.
		Dust released due to mining activity will be suppressed
		periodically by sprinkling of water, by engaging water
		tankers,
	Water	Garland drains are provided at the mine site to regulate
	Pollution	monsoon water and direct the same to the settling ponds
Environment		/ mine pit to contain the mine wash off and to avoid the
Management Plan		same joining the adjoining surface water bodies / water
	NT.	courses.
,	Noise	Plantation will be carried out all along the lease
		periphery, which acts as acoustic barrier for noise
	C (11337	transmission.
	Solid Waste	Solid waste will be stacked at designated places during
	Management	the quarry operations and will be utilized for
	I E	reclamation work during mine closure plan.
	Eco-	At the end of life of mine, the excavated pit will be
	restoration	4.3417 Ha,, in which 3.81495 Ha will be reclaimed
		with stacked dumping and overburden and rehabilitated
XXII IS TO		by plantation
Whether Environment	Yes	

Management Plan or	32
Eco restoration Plan satis factory?	*
Does it suggest mitigation measures for each activity	Yes
Is Pre-Feasibility Report (PFR) satisfactory	Yes
Does it need public hearing	No
Details of litigation and Court verdict if any	Not Applicable
Details of public complaint, if any	No
Details of statutory sanction required	Not Applicable
If CRZ recommendation applicable?	Not Applicable
ENVIRONME	PART B IT IMPACT ASSESSMENT AND MITIGATION MEASURES
Details of water requirement per day in KLD	The total water requirement for the proposed project has been estimated to be around 2.4 KLD. About 0.4 KLD is required for domestic consumption, 1 KLD is required for dust suppression and 1 KLD is required for green belt development.
Water source/sources	The required water will be met from open Well.
Expected water use per day in KLD.  Details of water	The total water requirement for the proposed project has been estimated to be around 2.4 KLD. About 0.4 KLD is required for domestic consumption, 1 KLD is required for dust suppression and 1 KLD is required for green belt development.
requirements met from water harvesting.	Around I KLD is required for dust suppression will be met from water harvesting pond.
What are the impact of the proposal on the ground water?	The observation made during the field studies indicate water level varying and between 15-20 m below the ground level. The ultimate depth of the working of the quarry is 60 m MSL. Since the working is much above the general ground water table, it does not affect the ground water.
How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Not Applicable
What is the incremental pollution load from	Not Applicable

Г		
	waste water generated	
	from the proposed activities?	•
	How is the storm water from within the site managed?	<ul> <li>Storm water drains with silt traps will be suitably constructed all along the periphery of the pit area (Garland drains) to collect the run-off from the lease area and divert into the storm water pond/tanks proposed within the complex.</li> <li>Appropriate channelization of storm water with channels of sufficient width</li> <li>All measures will be taken not to disturb the existing drainage pattern adjacent to the other properly.</li> </ul>
f	IMPACT ON B	IODIVERSITY AND ECO RESTORATION PROGRAMMES
	Will the project involve extensive clearing or modification of vegetation (Provide details)	There will not be any loss of native species of genetic diversity as the quarry already exists and continuation of the same will not affect or loss of native species in general.
	What ate the measures proposed to minimize the likely impact on vegetation (details of proposal for tree	It is proposed to develop green belt to about 80 % which includes areas like along mine lease boundary (7.5 m width), all along the periphery of the mine lease area and the reclaimed area. Grass and bushes will be planted in areas prone to erosion especially at the floot of the mine lease area. Other areas will be fertilized and planted with local species. The
	plantation/landscaping)  Is there any	characteristics of this vegetation will resemble that of the natural environment
	displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? Presence of any endangered species or red listed category (in detail)	This region does not have any endemic or endangered species, so any development activity in the region does not have any direct bearing or significant influences in the ecosystem stability or biodiversity  IMPACT ON AIR ENVIRONMENT
!		
	What are the mitigation measures on generation of dust, smoke and air quality	<ul> <li>Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust.</li> <li>To avoid the dust generation from the drilling operations, wet drilling method will be adopted.</li> <li>Drill machines will be equipped with dust collectors.</li> <li>Use of appropriate explosives for blasting and avoiding overcharging of blast holes.</li> </ul>

Details of internal traffic management of the site.	<ul> <li>In case of long transportation the trucks after loading will be covered with tarpaulin sheets.</li> <li>Speed of the vehicles will be maintained within the prescribed limits.</li> <li>Trucks will not be over loaded and will be maintained to the body level.</li> </ul>
Details of noise from traffic, machines and vibrator and mitigation measures	<ul> <li>Proper maintenance of machinery, equipment's and improvement on design of machines.</li> <li>Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas.</li> <li>Creation of wide green belt of dense foliage between mine areas and residential colonies.</li> </ul>
Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	<ul> <li>Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust.</li> <li>To avoid the dust generation from the drilling operations, wet drilling method will be adopted.</li> <li>Drill machines will be equipped with dust collectors.</li> <li>Use of appropriate explosives for blasting and avoiding overcharging of blast holes.</li> <li>Controlled blasting techniques will be adopted.</li> </ul>
Air quality monitoring in detail	Air quality is monitored from four different corners of the project site and results are found within the limits
	ENERGY CONSERVATION
Details of power requirement and source of supply.	Electric power required about 2KW per day which is drawn from KSEB.
Details of renewable energy (non energy (non energy)	Not applicable.
	RISK MANAGEMENT .
Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	Yes
Are proposals for fencing around the quarry satisfactory? Storage of explosives/hazardous	Yes
substance in detail Facility for solid waste management	
- Comment of the Comm	SOCIO ECONOMIC IMPACTS
Will the project cause adverse effects on local communities disturbance to sacred	Nil

sites or other cultural values. What are the safe guards proposed?	se <sup>th</sup>	
Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	Nil	
Details of CSR commitment	CSR Activities proposed to be carried out  Sl.No   Particulars   Amount in Rs.in lakhs  1   Promotion of education   7,00,000  2   Environmental sustainability   2,86,000  3   Health Care   8,75,060  4   Social Aspects   7,50,000  Grand total for 5 Year   26,11,000	
What are the projects benefits in terms of employment potential?	The quarrying activity will benefit local villages in both directly and indirectly. Direct beneficiary will be those who get employed in Quarry as skilled and unskilled workers.  PART C	
Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details	K. SOMAN DMG/KERALA/RQP/5/2016 GEO MARINE SOLUTIONS PVT LTD IFFLOOR, SAMEER COMPLEX, C.V JUNCTION PONNANI- 679577 KERALA	
	SUMMARY AND CONCLUSION	
Overall justification for implementation of the project.	It is predicted that socio-economic impact due to this project will positively bring prosperity and improvements in physical and social infrastructure in the area. It will increase the chance of more employment to local people. There is no resettlement and rehabilitation involved in this project. Revenue of the state government and central government will be increased through collection of various taxes. The entire project area is devoid of any endangered flora and fauna. It is proposed to reclaim the land to a maximum possible extent by providing green belt in refilling and surrounding areas. In addition to this 10% of the total area is converted to water pond. Thus the proposed project is not likely to affect the environment or adjacent ecosystem adversely.	
Explanation of how adverse impact have been mitigated.	<ul> <li>All working places will have safe means of access, safe working platform and exit. Persons working in hazardous dust prone area will be provided with dust mask.</li> <li>Personal protective equipment's like respirators, ear plug, noise muff, helmet etc. Will be provided to the workers.</li> <li>Proper unit design and engineering controls in order to protect workers, including by control of process and fugitive emissions.</li> <li>Adequate arrangement of drinking water will be done.</li> <li>Education &amp; training will be provided to the workforce about facilities, protective equipment, risk associated, potential health</li> </ul>	

- effects, etc.
- Display board will be provided showing the hazards associated and recommend precautionary measures.
- 2. The proposal was placed in the 83<sup>rd</sup> meeting of SEAC held on 20<sup>th</sup>& 21<sup>st</sup> December, 2017 and decided to defer the item for field inspection. Accordingly site visit to the quarry was carried out on 13 Feb 2018 by Dr P S Harikumar and Dr KhaleelChovva. The report is as follows;

The proponent was present at the site. The proposed project site falls within Latitude 11°05' 37.94" N to 11°05' 45.37" N to Longitude 76° 08' 17.36" Eto 76° 08' 31.49" E. The lease area consists of 5.2675 hectares, which is a private own land The nearest habitation is more than 100 m towards South. The topography of the lease area is hilly. The total water requirement for the proposed project has been estimated to be around 2.4 KLD. About 0.4 KLD is required for domestic consumption, 1KLD is required for dust suppression and 1KLD is required for green belt development. No benches have been formed at the site. There is no proper drainage available at the site. A large quantity of top soil ie. 60,000 tonnes and 1,36,000 tonnes of over burden is likely to be generated. Marked stone pillar and fencing is provided.

### Recommendations

Proper drains should be provided at the site. The water should be collected properly, silted in a retention pond and after clarification should be permitted to discharge to nearby water bodies.

A plan should be developed to collect and store the large quantity of top soil and overburden likely to be generated

Any plant species endemic to Western Ghats are available shall be protected in situ or transplanted to an appropriate place

It is recommended to give EC for the application after implementing the above mentioned conditions and stipulating general conditions for a quarry project.

3. The proposal was placed in the 86<sup>th</sup> meeting of SEAC held on 27<sup>th</sup> February 2018. The Committee appraised the proposal based on Form I, Pre-feasibility Report, Mining Plan, field inspection report of the Sub Committee and all other documents submitted with the

proposal. The Committee decided to Recommend for issuance of EC subject to general conditions and the following Specific Condition.

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

The proponent consented to set apart Rs.6 1akh per annum (recurring) for community welfare activities in consultation with the local body.

- 4. The proposal was placed in the 81 st meeting of SEIAA held on 08th March 2018. Authority accepted the recommendation of SEAC and decided to issue EC subject to general conditions in addition to the above specific condition as suggested by SEAC and the inspection team. The inspection team recorded that the EC can be given after implementing the conditions suggested by them. The proponent should set apart Rs. 6 lakh per annum (recurring) for community welfare activities. The CSR amount should be included in the annual account of the company and the expenditure statement should be submitted to SEIAA along with the compliance report after getting certified by a Chartered Accountant. A notarised affidavit for the commitment of CSR activities and also agreeing all the general and specific conditions should be submitted before the issuance of EC. The proponent has submitted the affidavit vide reference 5th cited agreeing all the conditions.
- 5. Environmental Clearance as per the EIA Notification 2006 is hereby accorded for the proposed quarry project of Sri. K. Muhammed, Kalodi House, Kallarmangalam P.O, Malappuram 676553 in Re Survey Nos. 168, 282, at Anakkayam Village, Ernad Taluk, Malappuram District, Kerala for an area of 5.2675 hectares, subject to the specific conditions as in para 3 & 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 (items 1 to 61), appended hereto will be applicable and have to be strictly adhered to.
- 6. 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 (Mines Drainage), Chapter 7 (Stacking of Mineral rejects and disposal of waste), Chapter 10 (EMP) Chapter 11 (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.

- 7. 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.
- 8. 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, Malappuram.
- iii. The given address for correspondence with the authorised signatory of the project is Sri. K. Muhammed, Kalodi House, Kallarmangalam P.O, Malappuram 676553

Sd/-P.H.KURIAN I.A.S, Member Secretary (SEIAA)

To,

Sri. K. Muhammed, Kalodi House, Kallarmangalam P.O, Malappuram – 676553

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. District Collector, Malappuram
- 4. Director, Mining & Geology, Thiruvananthapuram 4.
- 5. The Member Secretary, Kerala State Pollution Control Board
- 6. District Geologist, Malappuram
- 7. Tahsildhar, Ernad Taluk, Malappuram
- 8. Chairman, SEIAA.
- 9. Website.
- 10. S/f
- 11. O/c

Forwarded/By Order

Administrator, SEIAA

# STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

# GENERAL CONDITIONS (for paining projects)

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

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 hall 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.
- 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. 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.

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.
- 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.
- 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 thisimplementation 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 of 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.
- 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