



Validity expires on 04/01/2023

Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: SEIAA- Environmental clearance for the quarry project of Sri.P.Abdulla, in Sy. No. 93/1, 95/2 & 95/3 of Vadakkangara Village, Perinthalmanna Taluk, Malappuram District - granted – Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No.966/ EC1/ SEIAA/4476/2015

Dated, Thiruvananthapuram 05/01/2018

- Ref:
1. Application dated 19/10/2015 by Sri. P.Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District – 679 324.
 2. Minutes of the 58th meeting of SEAC held on 28th & 29th June 2016..
 3. Minutes of the 57th meeting of SEIAA held on 26th August 2016
 4. Minutes of the 63rd Meeting of SEAC held on 4th October 2016.
 5. Minutes of the 61st meeting of SEIAA, held on 30th November 2016.
 6. Minutes of the 68th meeting of SEAC held on 20th & 21st February
 7. Minutes of the 75th meeting of SEAC held on 29th & 30th June 2017
 8. Minutes of the 73rd meeting of SEIAA held on 15th September 2017.
 9. Certificate from Tahsildar Perinthalmanna No.C4-12831/17 dated 01.12.2017
 10. Affidavit received on 16/12/2017 from Shri.P.Abdulla,

ENVIRONMENTAL CLEARANCE NO. 05/2018

Sri. P. Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District- 679324., vide his application received on 27/10/2015, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Survey Nos. 93/1, 95/2 & 95/3 of Vadakkangara Village, Perinthalmanna Taluk, Malappuram District. 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 18th May 2012 of Ministry of Environment and Forests. The project is further Categorised 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.	966 / SEIAA / EC1 / 4476 /2015
Name /Title of the project	Quarry project of Mr. P. Abdulla
Name and address of project proponent.	Mr. P. Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District, Kerala-679324
Owner of the land	Private Own Land
Survey No. District/Taluk/ and Village etc.	Survey Nos. 93/1, 95/2, 95/3 of Vadakkangara Village, Perinthalmanna Taluk, Malappuram District, Kerala.
Details of period of lease or permit with number including the beginning and expiry date of lease/permit period (Copy to be attached)	Letter of Intent from Directorate of Mining & Geology Department, Trivandrum (No. 9889 / M3 / 2015 Dt. 29-09-2015) for an area of 4.3954 hectares.
Present Status of the project	Not working
Date & Year of starting the work of the quarry project.	10 years
Whether the quarry is working at present or not ?	No
If stopped working since when?	2016
Date of submission of Application	27/10/2015
Brief description of the project.	The applied area is having building stone throughout the area. As per detailed estimation the geological reserves is about 63,28,845 MT. After deducting the minerals locked in mines safety slope of 44,86,378 MT, the mineable reserves arrived to be 18,42,467 MT. The annual production is estimated to be 1,00,000 MTA. At the end of life of mine, the ultimate floor (bottom) level will reach 35m MSL. Under reclamation it is anticipated to undertake plantation in the applied area. Anticipating 50 % growth rate, at the end of life of mine about 2,700 trees will be grown in the total area

Details of Authorized Signatory and address for correspondence	Mr. P. Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District, Kerala-679324
LAND DETAILS	
Extent of area in hectares	4.3954 hectares
Is the property forest land/Govt. land/own land/patta land	Private Own land
Quantity of top soil/over burden produced and managed	Top soil : 4,678 cu. m. Overburden : 1,337cu. m.
Latitude and Longitude	11° 01'46.64"N to 11° 01'54.84"N 76° 08'34.88"E to 76° 08'44.84"E
Topography of land and elevation	45 m MSL to 100 m MSL
Slope analysis	Slope : towards south-west side
Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	No
Access road to the site width and condition	6m, tarred road, NE
Will there be any adverse impact on the aesthetics of the proposal site	No
MINING DETAILS	
Minimum and Maximum height of excavation.	40 m MSL to 100 m MSL
Life of mine proposed.	About 18 years
Underground mining if any proposed	NA
Method of Mining	Opencast mining
Distance from the adjacent quarry	There is no quarry in operation within 500m.
Cluster condition if any	There is no quarry in operation within 500m.
Has "No cluster certificate" submitted?	Yes. Submitted along with our application - Page No. 192.
Distance from nearby habitation	103 m towards south side
Distance from nearby forest, if applicable	Nil
Distance from protected area, Wildlife Sanctuary, National Park etc.	Nil

Distance from nearby streams/rivers/National Highway and Roads	Kunthi River, 9 km, NE Puthenveedu, 2 km, NW	
Is ESA applicable? If so distance from ESA limit		
Has approved mining plan, prepared by RQP submitted?	Yes	
Capacity of production in TPA	About 18 years	
Details of mining process	The mining will be done by open cast semi-mechanized method of mining. The bench height and width will be maintained 5 m. Excavated material is transported to the crusher unit existing near the complex for further processing. The ultimate depth of the mine workings is estimated to reach upto 35m MSL	
DETAILS OF PROJECT COST		
Land cost	Rs. 2.50 Crores	
Total Cost	Rs. 2.50 Crores	
Financial Statement including funding source and details of insurance etc.	Source :- Own source & bank loan Insurance :- Insurance to the workers and machinery during construction phase	
Management Plan	Air Pollution	Mining activities will generate certain quantities of dust during drilling, blasting, loading and transportation operations. The following measures will be taken to mitigate the fugitive dust from different operations. <ul style="list-style-type: none">• Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust.• To avoid the dust generation from the drilling operations, wet drilling method will be adopted.• Drill machines will be equipped with dust collectors.• Use of appropriate explosives for blasting and avoiding overcharging of blast holes.• Controlled blasting techniques will be adopted.• Watering of haul road and other road at regular intervals.

		<ul style="list-style-type: none"> • Provision of dust filters/ mask to workers working at highly dust prone and affected areas. • Provision of green belt all along the periphery of the lease area. • Periodical monitoring of ambient air quality in and around the lease area. <p>The extracted mineral will be transported from the quarry to the end user by adopting following measures so as to minimize dust emissions.</p> <ul style="list-style-type: none"> • In case of long transportation the trucks after loading will be covered with tarpaulin sheets. • Speed of the vehicles will be maintained within the prescribed limits. Trucks will not be over loaded and will be maintained to the body level
	Water Pollution	Provision of storm water collection pond with an appropriate capacity. The water requirement for sprinkling on sources of dust emission, on roads, landscaping etc. Can be met from the stored rainwater in the pond.
	Noise	<p>The major noise generating source from the proposed activity is working machinery, drilling, blasting and plying of vehicles. The following control measures are to be undertaken to bring down the noise levels:-</p> <ul style="list-style-type: none"> • Proper maintenance of machinery, equipments and improvement on design of machines. • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. • Creation of wide green belt of dense foliage between mine areas and residential colonies. • related health problems • Proper training to personnel to create awareness about adverse noise level effects. <p>Planned noise monitoring at suitable locations in the plant and outside location for proper effective remedial actions.</p>
	Solid Waste Management	<p>Topsoil Management</p> <p>A total quantity of 4,678 cu. m. of topsoil</p>

		<p>is proposed to be removed during the mining operations. The topsoil excavated from the quarry will be dumped separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation. Precautions will be taken to limit the height of the topsoil dump to 5 to 6 meters in order to preserve its fertility and shelf life. It will be suitably protected from soil erosion and infertility by planting fodder grass and leguminous plants during temporary storage.</p> <p style="text-align: center;">Overburden Management</p> <p>About 1,337 cu. m of overburden will be generated throughout the mine life. This waste will be utilized within the pit for lying of haul roads. At the end use, OB can be reutilized as soil base for plantation.</p>
	Eco-restoration	The year wise programme of eco-restoration for the life of mine, about 2,700 trees will be planted in an area of 2.6982 ha.
Whether Environment Management Plan or Eco restoration Plan satisfactory?	yes	
Does it suggest mitigation measures for each activity	yes	
If Pre-Feasibility Report (PFR) satisfactory	yes	
Does it need public hearing	no	
Details of litigation and Court verdict if any	nil	
Details of public complaint, if any	nil	
Details of statutory sanction required	enclosed	
If CRZ recommendation applicable?	NA	
PART B ENVIRONMENT IMPACT ASSESSMENT AND MITIGATION MEASURES		
Details of water requirement per day in KLD	<p>The total water requirement is about 16 KLD in which 1 KLD is for domestic requirement which would be sourced from open well, 13 KLD for dust suppression system in mine as well as ancillary unit and 2 KLD for plantation</p>	

	purposes and will be sourced from storm water pond.
Water source/sources.	Open well & Storm water pond
Expected water use per day in KLD.	16 KLD
Details of water requirements met from water harvesting.	It is proposed to construct a storm water collection pond and de-siltation unit in the lowest contour of the plot. The water requirement for sprinkling on sources of dust emission, roads and for landscaping purposes can be met from the stored rain water pond and thereby conserve the fresh water.
What are the impact of the proposal on the ground water?	The source of water for the project are :- Stored Rain water (Tanks), Wells. The use of ground water (standby arrangement) only based on the permissible yield from the large open wells. Thereby no impact to 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 as the project is quarry Project
What is the incremental pollution load from waste water generated from the proposed activities?	Not applicable as the project is quarry Project
How is the storm water from within the site managed?	It is proposed to construct a storm water collection pond and de-siltation unit in the lowest contour of the plot.
IMPACT ON BIODIVERSITY AND ECO RESTORATION PROGRAMMES	
Will the project involve extensive clearing or modification of vegetation (Provide details)	The some area of proposed quarry has native trees, climbers, grass, shrubs, herbs etc.
What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	It is proposed to develop green belt to 90 % which includes areas like along mine lease boundary (7.5 m width), all along the periphery and reclaimed area. Grass and bushes will be planted in areas prone to erosion especially at the foot of the hill. Other areas will be fertilized and planted with local species. The characteristics of this vegetation will resemble that of the natural environment except for the early growth, which may be a protective cover crop of non-seeding annuals
Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? Presence of any endangered species or red listed category (in detail)	No
IMPACT ON AIR ENVIRONMENT	
What are the mitigation measures on generation of dust, smoke and air	The prime objective of the baseline air monitoring was to evaluate the existing air quality of the area. This will also

quality	be useful for assessing the conformity to standards of the ambient air quality during the operation of the proposed mine.
Details of internal traffic management of the site.	There will not be heavy traffic in the mine area
Details of noise from traffic, machines and vibrator and mitigation measures	Drilling, Blasting & machineries will generate noise; required precautions will be taken to maintain the noise pollution. Proper & timely maintenance for Machineries will be done to reduce noise pollution. Green belt construction in safety belt area and haul roads will also help in controlling the pollution
Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	Operation of machineries like DG will generate noise & small emission of dust & smoke; required precautions will be taken to maintain the noise pollution.
Air quality monitoring in detail	Air monitoring reports will be done in every 6 months.
ENERGY CONSERVATION	
Details of power requirement and source of supply.	The total power requirement will be 75 kW for compressors which will be operated by Diesel Engine.
Details of renewable energy (non – conventional) used.	The project proponent proposed to have a solar power plant to meet the energy requirements of the site office & labour quarters.
RISK MANAGEMENT	
Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	<ul style="list-style-type: none"> • Proper barricading and monitoring of the water stored area would be taken up to prevent accidents. • Well equipped medical / hospital facilities would be available round the clock for attending emergency arising out of accidents. • All working personnel would be medically examined at least once in every year and at the end of his term of employment
Are proposals for fencing around the quarry satisfactory? Storage of explosives/hazardous substance in detail Facility for solid waste management	<p>Yes</p> <p>A dedicated place for storage of explosives by means of magazine is being provided with all the safety and statutory norms of DGMS and Mines Act.</p> <p>No solid waste generated.</p>
SOCIO ECONOMIC IMPACTS	

Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?	No adverse effects on local communities, this project will make more employment & income generation for local people directly & Indirectly. CSR Project proposed will be implemented which will help in development of local people livings																		
Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	No																		
Are the CSR proposals satisfactory. Give details	<table><tr><th colspan="3">Common CSR ACTIVITIES already carried out</th></tr><tr><th>Sl.no</th><th>Particulars</th><th>Amount in Rs. In lakhs</th></tr><tr><td>1</td><td>Financial contribution to pursue higher education, the project started a scholarship and sponsorship programme for children from economically back ward families</td><td>1.5</td></tr><tr><td>2</td><td>Financial support to the Primary Health Center of Gram Panchayat for well infrastructure facility.</td><td>1.0</td></tr><tr><td>3</td><td>Provided construction materials to the needy people for the construction of house and toilets.</td><td>1.5</td></tr><tr><td>4</td><td>Financial support to the chronically ill patients, the project could bear a share of treatment cost and provided medicines to those who are taking medicines for long time</td><td>1.0</td></tr></table>	Common CSR ACTIVITIES already carried out			Sl.no	Particulars	Amount in Rs. In lakhs	1	Financial contribution to pursue higher education, the project started a scholarship and sponsorship programme for children from economically back ward families	1.5	2	Financial support to the Primary Health Center of Gram Panchayat for well infrastructure facility.	1.0	3	Provided construction materials to the needy people for the construction of house and toilets.	1.5	4	Financial support to the chronically ill patients, the project could bear a share of treatment cost and provided medicines to those who are taking medicines for long time	1.0
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	5	The project provided food provisions to 50 deserving individuals/families on Onam season.	0.50																		
	<table border="1"> <thead> <tr> <th colspan="3">Proposed common CSR Budget</th> </tr> <tr> <th>Sl.No.</th><th>Particulars</th><th>Amount Rs. In lakhs</th></tr> </thead> <tbody> <tr> <td>1</td><td>Promotion of education</td><td>Recurring : Rs. 3.20 Lakhs Non Recurring : Nil</td></tr> <tr> <td>2</td><td>Development of infrastructure</td><td>Recurring : Nil Non Recurring : Rs. 10.75 Lakhs</td></tr> <tr> <td>3</td><td>Care for defenseless</td><td>Recurring : Rs. 7.75 Lakhs Non Recurring : Rs. 1.0Lakhs</td></tr> <tr> <td colspan="3">A details study on social status of the project site surroundings & need base study on proposed CSR activities were carried out. The summary of the report is given above.</td></tr> </tbody> </table>			Proposed common CSR Budget			Sl.No.	Particulars	Amount Rs. In lakhs	1	Promotion of education	Recurring : Rs. 3.20 Lakhs Non Recurring : Nil	2	Development of infrastructure	Recurring : Nil Non Recurring : Rs. 10.75 Lakhs	3	Care for defenseless	Recurring : Rs. 7.75 Lakhs Non Recurring : Rs. 1.0Lakhs	A details study on social status of the project site surroundings & need base study on proposed CSR activities were carried out. The summary of the report is given above.		
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What are the projects benefits in terms of employment potential?	14 people are directly and indirectly working this quarry.																				
PART C																					
Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details	M/s Environmental Engineers & Consultants Pvt. Ltd. (Sr. No. 58 as per MoEF&CC list of Accredited Consultant Organization) Head Office :- A1-198, Janak Puri, New Delhi. Branch Office:- C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.																				
SUMMARY AND CONCLUSION																					
Overall justification for implementation of the project.	The proposed project is an existing quarry project for an area of 4.3954 hectares.																				

Explanation of how adverse impacts have been mitigated.	No. , there will be no adverse impacts envisaged on the aesthetics of the project site.
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2. The proposal was first considered in the 58th meeting of SEAC held on 28th & 29th June 2016. The committee appraised the proposal based on the mining plan, pre-feasibility report and all other documents submitted along with the Form I application and decided to Recommend for issuance of EC for mining subject to the general conditions.
3. The proposal was considered in the 57th meeting of SEIAA held on 26th August 2016. Authority decided to have the site inspection conducted by SEAC, before decision is taken on grant of environmental clearance.
4. The proposal was considered in the 63rd Meeting of SEAC held on 4th October 2016. The Committee decided to wait for the decision of the SEIAA on site inspection.
5. The proposal was considered in the 61st meeting of SEIAA, held on 30th November 2016. The Authority decided to return the proposal for recommendation based on site inspection.
6. The proposal was placed in the 68th meeting of SEAC held on 20th & 21st February 2017. The Committee examined the suggestions made by SEIAA and decided to defer the item for site inspection. The site inspection was conducted by Dr P S Harikumar and Dr Khaleel Chovva on 21-05-2017 and reported that
 - Boundary pillars are to be erected all around the site Fencing should be provided around the quarry area
 - Top soil and overburden should be collected properly and store at an appropriate place at the lower region of the quarry site with protective cover
 - Sign boards need to be provided around the site.
 - If any plant species endemic to Western Ghats are noticed, they shall be properly protected in insitu or transplanted to a suitable site inside the lease area.
 - Water should be collected and stored in a pit and any overflow should be allowed to drain only after proper clarification
7. The proposal was placed in the 75th meeting of SEAC held on 29th & 30th June 2017. 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 in addition to the following specific condition for mining.
 1. Boundary pillars are to be erected all around the site Fencing should be provided around the quarry area
 2. Top soil and overburden should be collected properly and store at an appropriate place at the lower region of the quarry site with protective cover
 3. Sign boards need to be provided around the site.

4. *Water should be collected and stored in a pit and any overflow should be allowed to drain only after proper clarification*
5. *If any plant species endemic to Western Ghats are noticed, they shall be properly protected in insitu or transplanted to a suitable site inside the lease area.*
8. The proposal was considered in the 73rd meeting of SEIAA held on 15th September 2017. Authority accepted the recommendation of SEAC and decided to issue EC subject to general condition in addition to the specific conditions above.

The proponent should set apart an amount of Rs 12 lakhs (non-recurring) and 11 lakhs (recurring) for CSR activities for the welfare of the local community in consultation with the local Panchayat. EC will be issued on condition that a certificate from a competent authority should be submitted stating that all the premining conditions noted above have been fulfilled in the project site. A notarised affidavit should also be submitted for the commitment of CSR activities and agreeing all the general and specific conditions. The proponent has submitted the certificate from a competent authority vide ref 9th cited and also submitted the affidavit vide ref 10th cited satisfying all the general and specific conditions imposed by SEIAA.

9. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed building stone quarry project of Shri.P.Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District - 679 324 Kerala State for an area of 4.3954 Ha, in Sy No. 93/1, 95/2 & 95/3 at Vadakkangara Village, Perinthalmanna Taluk Malappuram District subject to the specific conditions as recommended by SEAC in para 7th & 8th 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.
10. 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 11 (EMP) Chapter 12 (Progressive Mine Closure Plan) of the Mining Plan as submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.
11. 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.

12. 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 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. P.Abdulla, Palliyalil House, Vellila, Mankada, Malappuram District – 679 324.

Sd/-

P.H.Kurian.I.A.S

Member Secretary (SEIAA)

To,

Mr. P.Abdulla,
Palliyalil House,
Vellila, Mankada,
Malappuram District – 679 324.

Copy to,

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



Forwarded /By Order

Administrator (SEIAA)

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
KERALA

GENERAL CONDITIONS (for mining projects)

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

29. 100 m buffer distance should be maintained from forest boundaries.
30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
31. All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponents shall apply and get the approval of this Authority.
33. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. 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 PM₁₀ and PM_{2.5} such as haul Road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
49. The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
50. The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.
51. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
52. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
54. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license on consent given by any other authority for the same project.
55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.
56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.
57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area.
59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
60. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.
61. Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.


For Member Secretary, SEIAA Kerala

