



Validity expires on 16.08.2022

Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: SEIAA- Environmental Clearance for the proposed building stone quarry project in Sy. Nos. 251/1, 251/1-1 & 251/1-2 at Pazhayakannummel Village, Chirayinkeezhu Taluk, Thiruvananthapuram District, Kerala by Sri. K. A. Jaleel - EC granted - Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 985/SEIAA/EC1/4652/2015

Dated, Thiruvananthapuram. 17.08.2017

- Ref:
1. Application received on 11.11.2015 from Sri.K. A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District - 691 571
 2. Minutes of the 60th meeting of SEAC held on 28th & 29th July, 2016
 3. Minutes of the 62nd meeting of SEAC held on 06th & 07th September, 2016
 4. Minutes of the 64th Meeting of SEAC held on 16th & 17th November 2016
 5. Minutes of the 62nd meeting of SEIAA held on 23rd December 2016
 6. Minutes of the 69th meeting of SEAC held on 9th and 10th March 2017
 7. Minutes of the 68th meeting of SEIAA held on 12th May 2017
 8. Affidavit received on 17.07.2017 from Sri.K. A. Jaleel

ENVIRONMENTAL CLEARANCE NO.54/2017

Sri.K. A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District - 691 571, vide his application received on 11.11.2015, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 251/1, 251/1-1 & 251/1-2 at Pazhayakannummel Village, Pazhayakannummel Grama Panchayat, Chirayinkeezhu Taluk, Thiruvananthapuram District, Kerala for an area of 2.30.00 hectares. The project comes under 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. The proposed project site falls within the latitude of 08° 46' 31.87" N - 08° 46' 38.45" N & longitude of 76° 53' 51.60" E - 76° 53' 54.68" E. The proposed project is for quarrying of 57,127 m³/ annum of building stone.

Details of the project as furnished by the applicant are as follows:

BASIC INFORMATION OF QUARRY

PART A

Project details		
1.	File No.	985/SEIAA/EC1/4652/2015
2.	Name /Title of the project	Proposed Building Stone Quarry at Sy. Nos. 251/1,

		251/1-1 & 251/1-2, Pazhayakannummel Village, Chirayinkeezhu Taluk, Thiruvananthapuram District, Kerala Project by Mr. K.A. Jaleel
3.	Name and address of project proponent.	Mr. K.A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District, Kerala – 691 571.
4.	Owner of the land	K.A. Jaleel, Ibrahim Kunju, SubaidaBeevi, ShamsunisaBeevi, Bindhu
5.	Survey No. District/Taluk/ and Village etc.	Sy. Nos. 251/1, 251/1-1 & 251/1-2, Pazhayakannummel, Chirayinkeezhu, Thiruvananthapuram, Kerala.
6.	Details of period of lease or permit with number including the beginning and expiry date of lease/permit period (Copy to be attached)	This is a proposed new quarry. No lease or permit is executed.
7.	Present Status of the project a. Date & Year of starting the work of the quarry project. b. whether the quarry is working at present or not ? c. If stopped working since when?	This is a proposed new quarry. We will start the work after getting the environmental clearance. The status of the site is rocky, vacant and uncultivable area.
8.	Date of submission of Application	11.11.2015
9.	Brief description of the project.	Building stone quarry in an area of 2.30.00 Hectares with a production capacity of 137105 M.T per Annum at Pazhayakannummel Village, Chirayinkeezhu Taluk, Thiruvananthapuram District, Kerala
10.	Details of Authorized Signatory and address for correspondence	Mr. K.A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District, Kerala – 691 571.
Land Details		
11.	a) Extent of area in hectares	2.30.00 ha
12.	b) Is the property forest land/Govt. land/own land/patta land	Own Patta Land
13.	c) Quantity of top soil/over burden produced and managed	1. Top soil -8020 M.T 2. Over burden - 34181M.T
14.	d) Latitude and Longitude	08° 46' 31.87" N - 08° 46' 38.45" N 76° 53' 51.60" E - 76° 53' 54.68" E
15.	e) Topography of land and elevation	Hilly Terrain & 111-61m RL

16.	f) Slope analysis	Lease area is sloping towards North East side.
17.	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	Due to excavation, significant land disturbance will occur.
18.	h) Access road to the site width and condition	Width of the access road to site is 8m and it is in good condition for transportation of vehicles.
19.	i) Will there be any adverse impact on the aesthetics of the proposal site	Does not arise.
Mining details		
20.	a) Minimum and Maximum height of excavation.	6m minimum & 45m maximum
21.	b) Life of mine proposed.	10 years
22.	c) Underground mining if any proposed	No
23.	d) Method of Mining	Open Cast, Semi mechanized mining
24.	e) Distance from the adjacent quarry	0.5 km (M/s. Star Quarry Aggregates Pvt. Ltd.)
25.	f) Cluster condition if any	No
26.	g) Has "No cluster certificate" submitted?	500m radius quarry certificate submitted with approved mining plan.
27.	h) Distance from nearby habitation	Kilimanoor – 1.5 km, W
28.	i) Distance from nearby forest, if applicable	None within the study area
29.	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	None within the study area
30.	k) Distance from nearby streams/rivers/National Highway and Roads	Vamanapuram River - 5.6 km ,SW MC Road connecting Ayoor to Trivandrum – 3.5 km, SW
31.	l) Is ESA applicable? If so distance from ESA limit	Not Applicable
32.	m) Has approved mining plan, prepared by RQP submitted?	The approved mining plan is prepared by RQP & it is submitted.
33.	n) Capacity of production in TPA	137105 M.T per annum(Max. rate of production)
34.	o) Details of mining process	Open cast method of mechanized mining will be adopted to extract rough stones of required size from the mine area. While opening a new mine, several long term aspects of mining should be considered like semi-permanent roads, planning the development

		work, formation of working faces, approach road to various benches for movement of dumpers, selection and recruitment of man power, machineries, construction of infrastructures, selection of dump sites, stacking yards for undressed blocks, finished products and other facilities.
Details of Project cost		
36.	a) Land cost	15.2 lakhs
37.	b) Plant and Machinery	20.0 lakhs
38.	c) Total Cost	38.70 lakhs (including EMP cost - 3.5 lakhs)
39.	d) Financial Statement including funding source and details of insurance etc.	The funding will be given by the Own funding of Mr. K.A. Jaleel.
40.	Management Plan	MANAGEMENT PLAN:
		Air pollution <ul style="list-style-type: none"> ➤ Water sprinkling will be done by water tanker fitted with water pump to reduce generation of dust during loading. ➤ Dust masks will be provided to operators and other persons near loading. ➤ Green belt will be developed around the mine lease boundary in order to reduce spread of air pollution and plantation will be done around mine office, haul road, etc to control dust pollution.
		Water pollution <ul style="list-style-type: none"> ➤ No waste water generation is envisaged during the mining process. The domestic effluent generated from the mine office, will be disposed off in soak pits via septic tanks. ➤ Water will be stored in the pit required for irrigation of plants, spraying water on roads and other miscellaneous purposes by diverting direction of the garland drain towards pit when required
		Noise <ul style="list-style-type: none"> ➤ Green belt will be developed around the mine lease boundary in order to reduce noise pollution in the surroundings. ➤ Controlled Blasting will be carried out to minimize noise

			generation. Blasting will be done in day time. ➤ Drilling will be done with sharp drill bits, which reduces generation of noise during drilling.
		Solid Waste Management	➤ Solid waste will be disposed or utilized for filling excavated areas, road construction and artificial soil for greenhouse pot trails for grass & tree growth at mining area.
		Eco restoration	➤ Green belt will be developed around the mine lease boundary, around mine office, haul road, etc to restore the ecology and aesthetics of the mine site.
41.	Whether Environment Management Plan or Eco-restoration Plan satisfactory?	Yes. Environmental Management Plan is provided with EC Application.	
42.	Does it suggest mitigation measures foreach activity	Yes	
43.	If Pre-Feasibility Report (PFR) satisfactory	Yes.	
44.	Does it need public hearing	Not Required	
45.	Details of litigation and Court verdict if any	No court case is pending against this project.	
46.	Details of public complaint, if any	No Complaints against this project	
47.	Details of statutory sanction required	Not Required	
48.	If CRZ recommendation applicable?	Not Required	
PART B			
Environment Impact Assessment and Mitigation Measures			
Impact on water			
49.	Details of water requirement per day in KLD	17.0 KLD (Domestic & Drinking purpose - 4 KLD Dust suppression - 8 KLD Greenbelt/Plantation – 5 KLD)	
50.	Water source/sources.	Open well at the Project site	
51.	Expected water use per day in KLD.	17.0 KLD	
52.	Details of water	It is a new proposed quarry. Water will be sourced	

	requirements met from water harvesting.	from open well.														
53.	What are the impact of the proposal on the ground water?	There is no impact on ground water due to this project. The mining activity is terminated 3m above the water table.														
54.	How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Sewage will be disposed to Septic tank followed by the soak pit.														
55.	What is the incremental pollution load from waste water generated from the proposed activities?	No incremental pollution loads due to wastewater generation. It will be treated in Septic tank followed by the soak pit.														
56.	How is the storm water from within the site managed?	The mine pit will be used as a storm water reservoir. Excess water will be diverted to drainage to reach the external drainage.														
Impact on Biodiversity and Eco restoration Programmes																
57.	Will the project involve extensive clearing or modification of vegetation (Provide details)	There shall be minor clearing activities which will take place to clear the shrubs and trees and it will be suitably planted after the mining or subsequent years														
58.	What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	<p>Due to this project, small amount of vegetation loss will occur. The following trees will proposed to plant in the greenbelt area.</p> <table><tr><th>Botanical Name</th><th>Vernacular Name</th></tr><tr><td><i>Grevillea robusta</i></td><td>Silver oak</td></tr><tr><td><i>Cocos nucifera</i></td><td>Thengu (Coconut)</td></tr><tr><td><i>Alstonia scholaris</i></td><td>Pala</td></tr><tr><td><i>Garcinia cambogia</i></td><td>Kodampuli (Malabar Camboge)</td></tr><tr><td><i>Carica Papaya</i></td><td>Kappanga / Omakaya</td></tr><tr><td><i>Mangifera indica</i></td><td>Mavu (Mango)</td></tr></table>	Botanical Name	Vernacular Name	<i>Grevillea robusta</i>	Silver oak	<i>Cocos nucifera</i>	Thengu (Coconut)	<i>Alstonia scholaris</i>	Pala	<i>Garcinia cambogia</i>	Kodampuli (Malabar Camboge)	<i>Carica Papaya</i>	Kappanga / Omakaya	<i>Mangifera indica</i>	Mavu (Mango)
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<i>Mangifera indica</i>	Mavu (Mango)															
59.	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)	The proposed activity is neither displacing any terrestrial or aquatic fauna. There is no endangered species found in the study area.														

Impact on Air Environment		
60.	What are the mitigation measures on generation of dust, smoke and air quality	Control measures like suppression of dust by water sprinkling and developing green belt along the periphery of the pit will be carried out for controlling the dust.
61.	Details of internal traffic management of the site.	Haul road will be developed at the point of loading. Width of the access road to site is 8m. The mine roads are also semi-permanent nature and hence will not be any impact after the closure of mine
62.	Details of noise from traffic, machines and vibrator and mitigation measures	Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be very minimum.
63.	Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site.
64.	Air quality monitoring in detail	Periodic air quality survey will be carried out to monitor the quality and for timely corrective actions. The environmental monitoring plan is provided in the EMP.
Energy Conservation		
65.	Details of power requirement and source of supply.	50 KW & DG Set.
66.	Details of renewable energy (non – conventional) used.	-
Risk Management		
67.	Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	First aid facility will be provided at the site and emergency vehicle will be provided in case emergency.
68.	Are proposals for fencing around the quarry satisfactory? Storage of explosives/hazardous substance in detail Facility for solid waste management	Explosives will be stored as per the Indian Explosive Act 1958 & explosive rules 1983. Solid waste will be proposed to stack initially along the lease boundary and will be backfilled finally within the mine lease area
Socio Economic Impacts		

69.	Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?	The proposed project will not cause any disturbance to the local communities. There are no sacred sites or cultural values nearby.
70.	Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	There is no change in demographic structure due to this project. Only the local people will be employed for this quarry.
71.	Are the CSR proposals satisfactory. Give details	The proposed CSR activity - Rs. 25 lakhs
72.	What are the projects benefits in terms of employment potential?	About 18 nos of local people will get employment due to this project implementation.
PART C		
73.	Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	Certificate No.:NABET/EIA/1316/RA001 ABC Techno Labs India Pvt. Ltd, No.2, 2nd street, Thangam colony, Anna nagar West, Chennai- 600 040 Ph: +91 -422 -2453737
Summary and Conclusion		
74.	Overall justification for implementation of the project.	Adequate resources are available in the project site and adjacent facilities & infrastructure are adequate. Currently market value of the building stone is good in the surrounding area.
75.	Explanation of how adverse impact have been mitigated.	Land Environment Source of impact: Change of land use Mitigation measures: Construction of check dams, greenbelt development Water Environment Source of impact: Domestic wastewater Mitigation measures: Domestic sewage will be septic tank followed by soak pit. Air Environment: Source of impact: Excavation, loading , transportation Mitigation measures: water sprinkling & greenbelt development. Noise Environment: Source of impact: drilling, blasting, loading and

		unloading of mineral Mitigation measures: Proper maintenance of machinery and equipments & design, Use of personnel protective devices i.e. earmuffs and earplugs by workers
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PROPOSED CSR ACTIVITY PLAN

S. No	Description	Amount (Lakhs)				
		2016 & 17	2018 & 19	2020 & 21	2022 & 23	2024 & 25
1	Repairing of Kattumpuram Road & Kilimanoor to Pazhayakunnummel Road	1.0	1.0	1.0	1.5	2.0
2.	Providing books and amenities like computer, smart board to Kilimanoor Govt. Higher Secondary School students	0.5	0.5	0.5	0.5	0.5
3.	Organizing Health Camps in the vicinity	0.5	0.5	0.5	0.5	0.5
4.	Sanitary facilities for Kilimanoor Govt. High School	2.0	1.0	1.0	1.0	1.0
5.	Infrastructure development for Kilimanoor Govt. LP School	1.0	1.5	---	1.5	1.5
5.	Infrastructure development for Kilimanoor Anganwadi	1.0	--	1.0	--	1.0
	Total	6.0	4.5	4.0	4.5	6.0
	Grand Total	25.0				

2. The proposal was first considered by SEAC in its 60th meeting held on 28th and 29th July, 2016 and the committee decided to inform the proponent to submit a certificate that the land is not assigned for any other purpose and deferred the item for field visit. The following things have to be noticed during field visit.

1. Slope /terrain
2. Proximity to residential area.

Field visit to the quarry project site of Sri. K.A. Jaleel in Pazhayakunnummel Village, Chirayinkizhu taluk, Thiruvananthapuram district, Kerala was carried out on 30.08.2016 by Sri. John Mathai, Member, SEAC along with Dr. K. Sreedharan from DoECC. The Proponent Sri K.A.Jaleel along with his team was present at the site at the time of site visit. The report is as follows:

The quarry project, without a crusher unit, is located at about 2.5 km east of Kilimanur with approach through a kutchra road connecting to the Police station-Tholikuzhi road. The area proposed for quarry is private land taken on lease

from four parties for a period of thirty years. This virgin land occupies the southern slopes of a hill ridge mostly exposing hard rock. The lower slopes are steep with a slope of $\sim 30^\circ$ while the upper slopes are less steep. No other quarries are noted in the vicinity. Boundary pillars of the plot are defined by steel poles and numbered displaying GPS values. Some of them are seen misplaced. The rock type belongs to Khondalite suite of rocks. On the lower slope with a thin soil and over burden, rubber is the dominant vegetation while the upper slope is relatively barren on account of rock outcrops. The storm water from the entire presently flows down the slope as sheet flow ultimately reaching Kilimanur Ar, a tributary of Vamanapuram river. Floral and faunal biodiversity is not observed as the area is largely cleared of natural vegetation. Settlement is seen in the vicinity but reported as belonging to the associates of the Proponent and beyond 100 m.

Based on an overall evaluation of the site, following conditions may be fulfilled before it is recommended for EC:

1. The land of 2.3 ha where quarry is proposed is to be fenced all around and provided with permanent boundary pillars. The exact co-ordinate values should be displayed on the pillars for reference.
2. The approach to the quarry should be provided with an all weather road. The maintenance of it should be the responsibility of the proponent.
3. Top soil and Over burden should be stored in a designated place away from the working area and provided with protective support walls.
4. In the non-quarry area a separate plot may be set apart for the conservation of rare species in the vicinity.
5. A catch water drain should be provided all along to manage the storm water from the upper slopes of the quarry area. The storm water should be clarified, a part of it stored by providing a RWH and the remaining water after desiltation and clarification to be safely disposed into the stream.
6. The house belonging to Mohammed Mustafa, T P House, is apparently within 100 m of the quarry area. However it was stated by the proponent that it is beyond 100 m. A fresh measurement is to be done and if found within 100 m, the boundary of the quarry area to be shifted accordingly. The details of the measurement are to be reported to the committee with the plan of the quarry showing the location of the houses and approach road.
7. It should be assured that the fly rock distance shall never exceed 100 m from the quarry face. (500m distance is given as danger zone in the EMP report under item 4.5.3)
8. The bench formation in the quarry must take into account the natural topography following the contours and not as given in the progressive mine plan. The ultimate depth of the quarry shall not be below the level of valley

floor.

9. Assurance that green belt will be provided all around.

10. The CSR activity needs revision as discussed in the meeting.

3. The proposal was again considered by SEAC in its 62nd meeting held on 06th & 07th September, 2016 and deferred the item to submit the following additional documents.

1. The house belonging to Mohammed Mustafa, T P House is apparently within 100 m of the quarry area. However it was stated by the proponent that it is beyond 100 m. A fresh measurement is to be done and if found within 100 m, the boundary of the quarry area to be shifted accordingly. The details of the measurement are to be reported to the committee with the plan of the quarry showing the location of the houses and approach road.

2. Revised CSR activities for meeting the local needs to be furnished.

4. The proposal was again considered in the 64th Meeting of SEAC held on 16th and 17th November 2016. The committee verified the additional documents submitted by the proponent and found satisfactory. Based on the Mining plan, Form.1, all other documents submitted with the proposal and the field visit report, the committee decided to recommend the item subject to the following specific conditions in addition to the general conditions.

- 1. The approach to the quarry should be provided with an all weather road. The maintenance of it should be the responsibility of the proponent.*
- 2. In the non-quarry area a separate plot may be set apart for the conservation of rare species in the vicinity.*
- 3. A catch water drain should be provided all along to manage the storm water from the upper slopes of the quarry area. The storm water should be clarified, a part of it stored by providing a RWH and the remaining water after desiltation and clarification to be safely disposed into the stream.*

5. The proposal was considered by SEIAA in its 62nd meeting held 23.12.2016. The Authority decided to send the proposal back to SEAC for confirmation whether the house belonging to Muhammed Mustafa is confirmed to be out of 100 m for consideration to issue EC.

6. The proposal was considered in the 69th meeting of SEAC held on 9th and 10th March 2017. The proponent had submitted the copy of the document which he had entered into with Mustafa for procuring the building within one year. Now he also produced an undertaking letter from the owners of the residential property saying that the building is not under occupation. Further as per the rules, the stipulation is that no quarrying operation is to be carried out within 100 m of the dwelling unit and that is one of the general conditions stipulated in the mining rules. So the proponent is automatically prohibited from carrying out any quarrying operation within 100 m of the dwelling unit. In the above circumstances the Committee is of the opinion that there is no bar in issuing EC for the proposal.

7. The proposal was finally considered by the Authority in its 68th meeting held on 12.05.2017. The Authority decided to issue EC subject to the strict implementation of all specific conditions in addition to the general conditions as well as the conditions suggested by the field inspection report. An affidavit to this effect should be submitted before the issue of EC. It should also be mentioned in the affidavit that the referred dwelling unit mentioned in the inspection report shall be either demolished or that no quarrying operation shall be carried out within 100 meter of the dwelling unit.

8. The proponent has submitted an affidavit on 17.07.2017, satisfying all the above conditions. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed quarry project of Sri.K. A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District - 691 571 in Sy. Nos. 251/1, 251/1-1 & 251/1-2 at Pazhayakannummel Village, Chirayinkeezhu Taluk, Thiruvananthapuram District, Kerala for an area of 2.30.00 hectares, subject to the specific conditions as in para 4 & 7 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.

9. 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 6 (Mining), Chapter 7 (Blasting), Chapter 8 (Mine Drainage), 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.

10. 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.

11. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.

- i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
- ii. Instances of violation if any shall be reported to the District Collector, Thiruvananthapuram to take legal action under the Environment (Protection) Act 1986.

- iii. The given address for correspondence with the authorised signatory of the project is Sri.K. A. Jaleel, Machu Veedu, Mylakkadu P.O., Kollam District - 691 571.

Sd/-

JAMES VARGHESE.I.A.S,
Member Secretary (SEIAA)


To,

Sri.K. A. Jaleel,
Machu Veedu,
Mylakkadu P.O.,
Kollam District - 691 571

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. Director, Mining & Geology, Thiruvananthapuram -4.
4. District Collector, Thiruvananthapuram
5. District Geologist, Thiruvananthapuram
6. Tahsildar, Chirayinkeezhu Thaluk, Thiruvananthapuram
7. Chairman, SEIAA.
8. Website.
9. S/f
10. 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

