

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.

SEIAA- Environmental Clearance for the expansion of building stone quarry project Sub: in Sy. No. 153/2-2, 152/1-3, 151/4-2, 151/2-3, 151/2-4, 151/4-3, 152/1-2, 163/1-1 & 163/1-2 of Block 26 at Valakom Village, Kottarakkara Taluk, Kollam District, Kerala by Sri. M. Abraham - EC granted - Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 739/SEIAA/KL/6074/2014

Dated, Thiruvananthapuram 16.08.2017

- 1. Application received on 07.01.2015 from Sri. M. Abraham, Charuvila Puthenveed, Ref: Neerayicodu, Ayoor, Kollam District, Kerala – 691 533
 - 2. Minutes of the 68th meeting of SEAC held on 20th & 21st February 2017 3. Minutes of the 69th meeting of SEAC held on 09th & 10th March, 2017

 - 4. Minutes of the 71st meeting of SEAC held on 20th & 21st April 2017.
 5. Minutes of the 69th meeting of SEIAA held on 01st June 2017.

 - 6. Affidavit received on 03.08.2017 from Sri. M. Abraham

ENVIRONMENTAL CLEARANCE NO.49/2017

Sri. M. Abraham, Charuvila Puthenveed, Neerayicodu, Ayoor, Kollam District, Kerala - 691 533 vide his application received on 07/01/15, and resubmission of revised Form I and revised Mining plan on 18/06/2016 has sought Environmental Clearance under EIA Notification, 2006 for the Proposed Expansion of Quarry in Sy. No. 153/2-2, 152/1-3, 151/4-2, 151/2-3, 151/2-4, 151/4-3, 152/1-2, 163/1-1 & 163/1-2 of Block - 26 at Valakom Village, Kottarakkara Taluk, Kollam District for an area of 4.1485 Hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of Ministry of Environment and Forests.

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

The proposed project site falls within Latitude 08°55'26.58"N, Longitude 76°50'42.30"E. The lease area consists of 4.1485 hectares, which is own land. The proposed project is for quarrying of 56,647 m³ per Annum of building stone. The topography of the mine area is hilly. The highest elevation of the mine area is 138 m and lowest is 105 m MSL. The elevation difference is 33 m. The total cost of the project is 45.79 lakhs.

BASIC INFORMATION OF QUARRY PART A

TAKLA				
	I. Project details			
1.	- · · · · · · · · · · · · · · · · · · ·	739/EC3/61/SEIAA/2015		
2.	Name /Title of the project	Environmental Clearance for the Proposed of		
		Building Stone Quarry Project by Mr. M.		
		Abraham.		
3.	Name and address of project	Mr. M. Abraham		
	proponent.	CharuvilaPuthenveed,		
		Neerayicodu,		
1		Ayoor Post,		
		Kollam – 691 533		
4.	Owner of the land	Mr. Abraham, Mr. Sabu, Mr. Biju, Mr. Baiju		
5.	Survey No. District/Taluk/ and	Sy. Nos. 153/2-2, 152/1-3, 151/4-2, 151/2-3,		
	Village etc.	151/2-4, 151/4-3, 152/1-2, 163/1-1 & 163/1-2		
6.	Details of period of lease or	Quarry Lease No:		
	permit with number including	806/2010-11/1687/M3/2011 dated 07.03.2011		
	the beginning and expiry date of	Validity: 6 years		
	lease/permit period			
7.	Present Status of the project			
İ	a. Date & Year of starting the	Works started on 07.03 2011		
	work of the quarry project.			
	b. whether the quarry is	No		
	working at present or not?			
	c. If stopped working since	December 2016		
	when?			
8.	Date of submission of	07.01,2015		
	Application			
9.	Brief description of the project.	Building stone quarry in an area of 4.1485		
		Hectares at Valakom Village, Kottarakkara Taluk,		
		Kollam District, Kerala with maximum rate of		
		production 56647 m³/ annum.		
10.	Details of Authorized Signatory	Mr. M. Abraham		
	and address for correspondence	CharuvilaPuthenveed,		
ľ	Sambumas () (sam.)	NeeraYicodu,		
		Ayoor Post,		
	4.	Kollam – 691 533		
		. Land Details		
11.	Extent of area in hectares	4.1485 Ha		
12.	Is the property forest land/Govt.	Private Own Land		
<u> </u>	land/own land/patta land			
13.	Quantity of top soil/over burden	Top soil - 30980 m ³		
	produced and managed	Over burden - 17851 m ³		
14.	Latitude and Longitude	08°55'26.58"N & 76°50'42.30"E		
15.	Topography of land and	Topography of the lease area is hilly terrain. The		
	elevation	highest elevation of the lease area is 138 m. MSL		
		and lowest is 105 m. MSL.		
16.	Slope analysis	Slope: towards South - West		

No No No No No No No No			NT.
erosion, subsidence & natural drainage. 18. Access road to the site width and condition 19. Will there be any adverse impact on the aesthetics of the proposal site 10. a) Minimum and Maximum height of excavation. 21. b) Life of mine proposed. 22. c) Underground mining if any proposed 23. d) Method of Mining operation operation in the adjacent quarry submitted? 25. f) Cluster condition if any 26. g) Has "No cluster certificate" submitted? 27. h) Distance from nearby habitation 28. i) Distance from nearby forest, if applicable 29. j) Distance from nearby streams/rivers/National Highway and Roads Highway and Roads Highway and Roads Highway and Roads The Details of mining propered by RQP submitted? 31. l) Is ESA applicable? If so distance from ESA limit TPA 32. m) Has approved mining plan, prepared by RQP submitted? 33. n) Capacity of production in TPA 34. o) Details of mining process 35. a) Land cost 36. b) Plant and Machinery 27. c) Total Cost 37. c) Total Cost 38. V. Financial Statement including funding sourceand is represented to the access road to site is 8m Width of the access road to site is 8m No Width of the access road to site is 8m No Width of the access road to site is 8m No No Width of the access road to site is 8m No No Side the proposal site III. Mining details 105 m – 138 m MSL 105	17.	Will there be any significant	No
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		details of insurance etc.	be provided through the insurance company.

39.	Management Plan	Air	Water enriabling will be done
J7.	Management Plan	pollution	Water sprinkling will be done by water tanker fitted with
		Ponucion	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
			1
		Water	pollution. No waste water generation is
	·		322
		pollution	envisaged during the mining process. The domestic effluent
			generated from the mine
			office, will be disposed off in
			soak pits via septic tanks.
	asid:		> 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	➤ Green belt will be developed
		110150	around the mine lease
			boundary in order to reduce
.:(\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			noise pollution in the
14 21			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.
٠	:	Solid Waste	
	and the second	Management	utilized for filling excavated
	·	2.2	areas, road construction and
			artificial soil for greenhouse
			pot trails for grass & tree
			growth at mining area.
		Eco	> Green belt will be developed
		restoration	around the mine lease
	<u> </u>	Tentoramon	THE STATE STATE STATES

		boundary, around mine office, haul road, etc to restore the ecology and aesthetics of the mine site.
40.	VI. Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes.
41.	VII. Does it suggest mitigation measures for each activity	Yes.
42.	VIII. If Pre-Feasibility Report (PFR) satisfactory	Yes.
43.	IX. Does it need public hearing	Not Required
44.	X. Details of litigation and Court verdict if any	No court case is pending against this project.
45.	XI. Details of public complaint, if any	No Complaints against this project
46.	XII. Details of statutory sanction required	a. Mine Lease b. NOC from Pollution Control board c. Environmental Clearance from SEIAA. d. NOC from Explosive Dept.
47.	XIII.If CRZ recommendation applicable?	Not Applicable
	Im	PART B sessment and Mitigation Measures pact on water
48.	a) Details of water requirement per day in KLD	17.0 KLD Domestic purposes – 2.0 KLD Dust Suppression / Water sprinkling – 12.0 KLD Green Belt / Plantation – 3.0 KLD
49.	770000	Open well& Rain water reservoir
50.	c) Expected water use per day in KLD.	17.0 KLD
51.	d) Details of water requirements met from water harvesting.	It is proposed to construct a Rain water reservoir 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 reservoir and thereby conserve the fresh water.
52.	e) What are the impact of the proposal on the ground water?	The source of water for the project is Rain water reservoir & 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.
53.	f) How much of the water requirement can be met from the recycling of treated	Not applicable as the project is quarry project.

54.		waste water? (Facilities for liquid waste treatment)	
54.	-	iiquid waste treatment)	
54.			
1	(g)	What is the incremental	Not applicable as the project is quarry project.
ĺ		pollution load from waste	
		water generated from the	
	ļ.,	proposed activities?	
55.	h)	How is the storm water from	It is proposed to construct a storm water collection
		within the site managed?	reservoir and de-siltation unit in the lowest contour
			of the plot.
		Impact on Biodiversity	and Eco restoration Programmes
56.	a)	Will the project involve	Yes. The proposed quarry has native trees,
	ĺ	extensive clearing or	climbers, grass, shrubs, herbsetc. which will be
		modification of vegetation	clear from the site.
		(Provide details)	
57.	(b)	What are the measures	Due to this project, small amount of vegetation
		proposed to minimize the	loss will occur. Silver Oak, Thengu, Pala,
		likely impact on vegetation	Kodampuli, Mavutrees will be proposed to plant in
		(details of proposal for tree	the greenbelt area.
		plantation/landscaping)	
58.	c)	Is there any displacement of	No. The proposed activity is neither displacing any
		fauna – both terrestrial and	terrestrial or aquatic fauna.
		aquatic If so what are the	
		mitigation measures?	There is no endangered species found in the study
}	d)	Presence of any endangered	area.
		species or red listed category	
		(in detail)	
		Impact o	n Air Environment
59.	a)	What are the mitigation	Control measures like suppression of dust by water
i	á.	measures on generation of	sprinkling and developing green belt along the
		dust, smoke and air quality	periphery of the pit will be carried out for
			controlling the dust.
60.	b)	Details of internal traffic	Haul road will be developed at the point of
		management of the site.	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
61.	c)	Details of noise from traffic,	Quarrying of Rough Stone will be carried out by
		machines and vibrator and	drilling and blasting by using low power
		mitigation measures	explosives, and hence, noise will be minimum.
62.	d)	Impact of DG sets and other	
		equipments on noise and	
• .		vibration and ambient air	
!		quality around the project	
		site and mitigation measures	
		_	the quarry site.
63.	e)	Air quality monitoring in	Periodic air quality survey will be carried out to
-		detail	monitor the quality and for timely corrective I
		uctail	monitor the quality and for timely corrective actions. The environmental monitoring plan is
62.	d)	machines and vibrator and mitigation measures Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	and hence will not be any impact after the closure of mine Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be minimum. Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site.

	Energy Conservation			
64.	a)	Details of power		
٠٠. ا	4)	requirement and source of	50 KW & DG Set.	
		supply.		
65.	h)	Details of renewable energy		
05.	U)	(non – conventional) used.	-	
			Management	
66.	a)	Are there sufficient	First aid facility will be provided at the site and	
00.	a)	measures proposed for risk	emergency vehicle will be provided in case	
		hazards in case of	emergency.	
		emergency such as accident	omorgeney.	
		at the site?		
	1.5		Yes	
67.	b)	Are proposals for fencing		
		around the quarry	Explosives will be stored as per the Indian	
		satisfactory?	Explosive Act 1958 & explosive rules 1983.	
	c)	Storage of	Explosive fiet 1550 to explosive	
		explosives/hazardous substance in detail	Solid waste will be proposed to stack initially	
	1		along the lease boundary and will be backfilled	
	(d)	₹	finally within the mine lease area	
	L	management	Conomic Impacts	
	1 4		The proposed project will not cause any	
68.	1)		disturbance to the local communities. There are no	
		adverse effects on local	sacred sites or cultural values nearby.	
		communities disturbance to	Sacred sites of cultural various ficulty.	
		sacred sites or other cultural		
		values. What are the safe		
		guards proposed?	There is no change in demographic structure due	
69.	2)		to this project. Only the local people will be	
	§:	any changes to the		
	l. iii	demographic structure of	employed for this quarry.	
,	1	local population. If so,		
\$127		provide details.	THE COD - Highly proposed for 33 lakhs for a	
70.	3)	. 14 Hillian	The CSR activity proposed for 33 lakhs for a	
		satisfactory. Give details	period of next six years for the welfare of local	
			community.	
	<u> </u>		3 Lakhs (non-recurring) & 5 Lakhs (recurring).	
71.	4)		About 15 nos of local people will get employment	
ļ		benefits in terms of	due to this project implementation.	
		employment potential?		
			PART C	
72.		Details of NABET approved	Certificate No.:NABET/EIA/1316/RA001	
		EIA Consultant engaged-Their	ABC Techno Labs India Pvt. Ltd,	
		name, address and	No. 400, 13th Street,	
	8	ccreditation details	SIDCO Industrial Estate,	
			North Phase, Ambattur,	
	1		Chennai - 600098	
Ph: +91 -422 -2453737				
	Summary and Conclusion			
73.	a)	Overall justification for	Proposed Expansion of Building Stone Quarry in	

	implementation of the project.	an area of 4.1485 Hectares with maximum rate of production 56647 m³/ annum. Adequate resources are available in the project site &infrastructures are adequate. Currently market value of the building stone is good in the surrounding area.
74.	b) Explanation of how adverse	No. There will be no adverse impacts envisaged on
	impact has been mitigated.	the aesthetics of the project site.

- 2. The proponent has submitted the revised mining plan as per KMMC Rules-2015 and revised Form I. The proposal was considered in the 68th meeting of SEAC held on 20th and 21st February 2017. As the proponent did not turn up, the Committee decided to defer the item for the next meeting.
- 3. The proposal was again considered in the 69th meeting of SEAC, Kerala, held on 09th & 10th March, 2017. Further to the intimation the Proponent and the RQP attended the meeting and RQP made a power point presentation about the salient features of the project. The Committee appraised the proposal based on the Mining Plan, Pre-feasibility Report and all other documents submitted along with Form1. The Committee decided to defer the item for field inspection.

Subsequently, field visit to the Quarry project site of Shri. M. Abraham, Valakom Village, Kottarakkara Taluk, Kollam District was carried out on 18.04.2017 by the subcommittee of SEAC, Kerala, comprising Dr. Harikrishnan and Sri. John Mathai.

Based on an overall evaluation of the site and perusal of other records, the Sub Committee decided to recommend as follows:

- I The certificate that the land is not assigned for any specific purpose must be produced.
- 2 The cadastral map of the site is to be produced. The total area in possession and the proposed quarry land must be indicated in it.
- 3 The quarry pit on the western side must be maintained as RWH structure with storm water from the proposed quarry directed to the pit.
- 4 A separate plot to be set apart for conserving rare trees and plants observed in the area.
- 4. The proposal was considered in the 71st meeting of SEAC held on 20th and 21st April 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. The quarry pit on the western side must be maintained as RWH structure with storm water from the proposed quarry directed to the pit.
 - 2. If any plant species endemic to Western Ghats are noticed in the area they shall be properly protected in situ or by transplanting to an appropriate location inside the lease area.

A commitment may be obtained from the proponent to set apart Rs.3 lakh (non-recurring) and Rs.5 lakh per annum (recurring) for CSR activities for the welfare of the local community in consultation with the local Panchayat.

- 5. The proposal was finally considered by the Authority in its 69th meeting held on 01.06.2017. The Authority accepted the recommendation of SEAC in its 71st meeting held on 20th and 21st April 2017 and decided to issue EC subject to general conditions in addition to the following specific condition for mining.
 - 1. The quarry pit on the western side must be maintained as RWH structure with storm water from the proposed quarry directed to the pit.
 - 2. If any plant species endemic to Western Ghats are noticed in the area they shall be properly protected in situ or by transplanting to an appropriate location inside the lease area.

The conditions suggested by the inspection report should also be fulfilled. Rs.3 lakh (non-recurring) and Rs.5 lakh per annum (recurring) should be set apart for CSR activities for the welfare of the local community in consultation with the local Panchayath. An affidavit that all the above conditions shall be fulfilled, should be submitted before the issuance of EC. The proponent has submitted an affidavit vide reference 6th cited satisfying all the above conditions.

- 6. Environmental Clearance as per the EIA notification 2006 is hereby accorded for the proposed quarry project of Sri. M. Abraham, Charuvila Puthenveed, Neerayicodu, Ayoor, Kollam District, Kerala 691 533 in Sy. No. 153/2-2, 152/1-3, 151/4-2, 151/2-3, 151/2-4, 151/4-3, 152/1-2, 163/1-1 & 163/1-2 of Block 26 at Valakom Village, Kottarakkara Taluk, Kollam District, Kerala for an area of 4.1485 hectares, subject to the specific conditions as in para 5 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.
- 7. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and the undertakings in Chapter 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.
- 8. Validity of the Environmental Clearance will be five years from the date of this clearance, subject to inspection by SEIAA on annual basis and compliance of the conditions,

subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.

- 9. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.
 - i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
 - ii. Instances of violation if any shall be reported to the District Collector, Kollam 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. M. Abraham, Charuvila Puthenveed, Neerayicodu, Ayoor, Kollam District, Kerala 691 533.

Sd/-

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

To,

Sri. M. Abraham, Charuvila Puthenveed, Neerayicodu, Ayoor, Kollam District, Kerala – 691 533

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. District Collector, Kollam
- 4. Director, Mining & Geology, Thiruvananthapuram -4.
- 5. The Member Secretary, Kerala State Pollution Control Board
- 6. District Geologist, Kollam
- 7. Tahsildhar, Kottarakkara Taluk, Kollam
- 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.
- 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.
- 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.
- Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- 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°.
- 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.
- 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.
- Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.
- 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 proponentshall 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.
- 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 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 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.
- 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

