

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 quarry project in Sy. Nos. 223 pt, 223/2, 223/6 pt, 118/14 pt, & 118/15 of Vandazhi - I Village, Alathur Taluk, Palakkad District, Kerala application of Sri. Vinu Mani, Managing Partner, M/s. Paramount Granites, - EC granted - Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 664/SEIAA/EC1/5179/2014

Dated, Thiruvananthapuram, 18.08.2017

Ref: 1. Application received dated 29.10.2014 from Sri. Vinu Mani, Managing Partner, M/s. Paramount Granites, 11/780, Odukoor, Chittadi (PO), Palakkad District, Kerala-678706

- 2. Minutes of the 60th meeting of SEAC held on 28th & 29th July. 2016.
- 3. Minutes of the 71st Meeting of SEAC held on 20th & 21st April, 2017.
- 4. Minutes of the 69th Meeting of SEIAA held on 01st June, 2017.
- 5. Affidavit dated 11.07.2017 from Sri. Vinu Mani

ENVIRONMENTAL CLEARANCE NO. 61/2017

Sri. Vinu Mani, Managing Partner, M/s. Paramount Granites, 11/780, Odukoor, Chittadi (PO), Palakkad District, Kerala- 678706, vide his application received on 29.10.2014, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 223 pt, 223/2, 223/6 pt, 118/14 pt, & 118/15 of Vandazhi - I Village, Alathur Taluk, Palakkad District, Kerala State. 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 project site falls within Latitude: N: 10° 32′ 25.2″ to N: 10° 32′ 32.3″ and Longitude: E: 76° 31′ 56.3″ to E: 76° 32′ 09.1″. The land use classification as per revenue records is private own land with rubber plantation. The present land use is 3.8669 Ha the current proposal is for the existing quarry with pit / quarry area of 3.8669 Hectares and mineral specific. Hence no alternate site was examined. The project is for quarrying of 3,00,000 tone per annum of building stope from the proposed lease area. The total mineable area is 3.8669 Ha as per the recommendation made by the Geologist. In the Form I also it is mentioned as 3.8669 Ha. The area which the mining lease was taken is 4.8056. Hence approved area as 3.8669 Ha.

BASIC INFORMATION OF QUARRY PART A

			I. Projec	t de	tails		
1.	File No.				664/SEIAA/EC1/5179/2014		
2.	Name /Title of the project			Paramount Granites			
3.	Name and address of project proponent.			Managir Paramou 11/780,	NUMANI, ng Partner, int Granites, Odukoor, Chi d, Kerala - 67	Creative transfer and the second control of	
4.	Owner of the	land				efer the below	
5.	Survey No. D	istrict/Taluk	/ and Village etc	 			
					100000		
	Sy. No./s.	Extent (in Ha)	ownership	1	/illage	Taluk	District
	223/pt, 118/14 pt	1.4368 0.2650	Paramount Granites	Va	ndazhi — I	Alathur	Palakkad
į	118/14 pt 118/15 223/6 pt.	0.8094 0.8094 0.2168	E. J. Mani E. J. Mani E. J. Mani	Va	ndazhi – I	Alathur	Palakkad
	118/14 pt	0.3621	N. J. Philomina	Va	ndazhi – I	Alathur	Palakkad
	223/2	0.9061	E. J Mani & N. J Philomina	Va	ndazhi – I	Alathur	Palakkad
	Total Proposed area quarry plan D approved for a	MG has con	isidered the appr	ase i	is 4.8056 after leav	Ha, but whilling 7.5 mts sa	e approving the afety barrier and
6.	Details of per	iod of lease ding the beg	or permit with inning and expir	У	period of execution still E of granted.	of 10 years find of the lease is awaited	be given for a rom the date of . But as on date, so lease is not mit the EC letter ted.
	1						141
7.	Present Status of the project a. Date & Year of startingthe work of the quarry project. b. whether the quarryis working at present or not? c. If stopped working since when?		No.93/G Dated Departm over an	BS/DOP/3983 11/12/2013 ent of Minia area of 43.20	king with permit 3/2013/A1/CRPS issued by the ag and Geology Are (0.4320 Ha) 223/2 valid upto		

		10/12/2014
8.	Date of submission of Application	29/10/2014
9.	Brief description of the project.	Paramount Granites is a private company working on Crusher &Quarries of Granite building stone Now company is intending to dequarrying in large scale.
10.	Details of Authorized Signatory and address for correspondence	Mr. VINUMANI, Managing Partner, Paramount Granites, 11/780, Odukoor, Chittadi (Po), Palakkad, Kerala - 678706
11.	Topography of land and elevation	This quarry area occupies northern part of the chains of hillocks extending from north of Elavampadam to South of chittady. This hillock is trending NW – SE, the slopes on either side are moderate to gentle. The highest elevation of the lease area is 115 m above MSL towards northern part of the area and 95 m above MSL towards southern part of the quarry area. Part of the quarry area is broken up, the non broken area is covered by moderate to scanty vegetation. There are no perennial water course / water bodies / streams / nallahs within the quarry area.
12.	Slope analysis	Terracing is always accompanied with plantation for stabilization of terraced slopes. It is always ensured that the average height of the dump does not exceed 10.0 m in each phase of dumping.
13.	Will there be any significant land disturbance resulting in soil erosion, subsidence & natura drainage.	I
14.	Access road to the site width and condition	7 meter wide road proposed to be asphalted.

15.	Will there be any adverse impact on the aesthetics of the proposal site	No
	II. Land De	tails
16.	Extent of area in hectares	4.8056
17.	Is the property forest land/Govt. land/own land/patta land	Own land
18.	Quantity of top soil/over burden produced and managed	Top Soil - 12,500 tons Overburden - 13,800 TPA
19.	Latitude and Longitude	N: 10°32'25.2' to N: 10°32'32.3'' E: 76°31'56.3'' to E: 76°32'09.1''

III.Mining details			
20.	Minimum and Maximum height of	Highest - 115 MSL	
	excavation.	Lowest – 95 MSL	
21.	Life of mine proposed.	7-8 Years	
22.	Underground mining if any proposed	NA	
23.	Method of Mining	Opencast - Semi mechanized	
24.	Distance from the adjacent quarry	10Kms	
25.	Cluster condition if any	NA	
26.	Has "No cluster certificate" submitted?	NA	
27.	Distance from nearby habitation	108 mts towards NW of quarry	
28.	Distance from nearby forest, if applicable	The nearest Peechi reserves forest is	
28.	Distance from nearby forest, mappincable	at a distance of more than 10.0 kms.	
29.	Distance from protected area, Wildlife	NA	
29.	Sanctuary, National Park etc.	र् <i>व</i>	
30.	Distance from nearby streams/rivers/National	Mangalam Dam is at a distance of	
30.	Highway and Roads	2.50 kms towards south.	
31.	Is ESA applicable? If so distance from ESA	No	
J1.	limit	No	
32	Has approved mining plan, prepared by RQP	Yes	
32,	submitted?	1 65	
33,	Capacity of production in TPA	3,00,000 Tonnes per annum (max.)	
34.	Details of mining process	Given in EMP	

,	IV. Details of Project cost			
35.	a) Land cost	1.5 Crore		
36.	b) Plant and Machinery	2.0 Crore		
37.	c) Total Cost	4.0 Crores (Includes construction		
		cost)		
38.	V. Financial Statement including funding sourceand details of insurance etc.	The Project Proponent is financially sound		

	carried-out
Water	Regular monitoring will be
	Water Pollution

	T		Т		carried-out
				Noise	Regular
					monitoring will be
					carried-out
				Solid Waste	Will be stored and
			П	Management	utilized for
			$\ \ $		construction
					purpose.
				Eco-	Quarry pit will be
				restoration	converted as a
1.0			Ц		water pond.
40.	V.	Whether Environment Management	Ι`	Yes, Submitt e d	
ì		Plan or Eco restoration Plan			
		satisfactory?			
41.	VII.	Does it suggest mitigation measures	1	Yes, Details giv	ven in EMP
	for				
		each activity			
42.	VIII.	If Pre-Feasibility Report (PFR)		Yes	
	satisfa		L		
43.	IX.	Does it need public hearing	-	Vo	
44.	Χ.	Details of litigation and Court verdict	1	VÍL .	
	if any		ii.	· 	
45.	XI.	Details of public complaint, if any	1	NIL	
46.	XII.	Details of statutory sanction required	5	Submitted	
47.	XIII.li	CRZ recommendation applicable?	1	NΑ	

	PART B Environment Impact Assessment an	d Mitigation Measures
	Impact on water	er
48.	a) Details of water requirement per day in KLD	15 KLD
4 9.	b) Water source/sources.	Open Well and Bore well
50.	c) Expected water use per day in KLD.	15 KLD
51.	d) Details of water requirements met from water harvesting.	0.4500 ha will be converted as water pond
52.	e) What are the impact of the proposal on the ground water?	The mining activity will not to touch the ground water table.
53.	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Domestic effluent will be generated and will be disposed off to septic and soak pit constructed as per CPCB norms. The discharge point would be to ground.

54.	g) What is the incremental pollution load from waste water generated from the proposed activities?	NIL
55.	h) How is the storm water from within the site managed?	Before onset of monsoon, drains are cut along toe of the quarry faces to divert the surface run off. Garland drain is provided at the quarry top to regulate monsoon water and direct the same to the settling ponds / quarry pit to contain the quarry wash off and to avoid the same joining to the adjoining surface water bodies / water courses. It also helps to avert eventual collapses and damages to the quarry faces. The pit will be fenced, such that no habitats can enter the pit. And watch
		and ward is provided round the clock.

		Impact on Biodiversity and Eco rest	oration Programmes
•	a)	Will the project involve extensive	No.Part of the quarry area is broken
56.		clearing or modification of vegetation	up, the non broken area is covered
		(Provide defails)	by moderate to scanty vegetation
	b)	What ate the measures proposed to	Green belt development will be
		minimize the likely impact on vegetation	carried out in the safety zone all
57.		(details of proposal for tree plantation)	around the quarry.
		landscaping)	Rubber trees are planted all around.
	c)	Is there any displacement of fauna - both	
, 558 (7 8 1 1		terrestrial and aquatic If so what are	No
58.		the mitigation measures?	
	(d)	Presence of any endangered species or	
		red listed category (in detail)	

19.5	Impact on Air E	nvironment
59.	a) What are the mitigation measures on generation of dust, smoke and air quality	 Wet drilling will be followed so that the dust emission to atmosphere is minimized, Proper blasting pattern will be followed for effective rock fragmentation and generation of minimal fine dust to open atmosphere, Water spraying arrangement on haul road and other critical locations, Proper maintenance of transport vehicles including HEMMs so that

		
		their emission always within the RTO norms.
Ĺ		KTO norms.
		Approach road shall be maintained for dust free movement of transport trucks,
		Avenue plantation all along the approach road which will act as dust arrestors,
		 Shall ensure that the trucks are overloaded so that spillages on the public road is avoided, Regular ambient air quality monitoring shall be carried out to ensure the air
		pollutants are kept under permissible limits always.
60.	b) Details of internal traffic management of the site.	Existing road is catering to average density of traffic and that expected incremental increase in road traffic due to the proposed activities would not
	of the site.	exceed has 13 trucks per day and would make no significant changes on the traffic load situation at quarry site.
		Personnel who are exposed to critical locations in the quarry will be provided with PPEs,
		• Fitness of all the transport and HEMMs will be ensured,
61.	c) Details of noise from traffic, machines and vibrator and mitigation	Acoustic enclosures will be provided for DG sets,
	measures	Corrective & preventive maintenance will be carried for all
\$ 15. Let 1		HEMMs so that they operate effectively,
		Greenbelt will be developed, which will act as an acoustic barrier for noise transmission
	d) Impact of DC sets and attent	- A counties1
1	d) Impact of DG sets and other equipments on noise and vibration	• Acoustic enclosures will be provided for DG sets,
62.	and ambient air quality around the	• Fitness of all the transport and
	project site and mitigation measures	HEMMs will be ensured.
63.	e) Air quality monitoring in detail	Analysis reports are submitted
	Energy Conse	rvation
		Since there is no any electrical

Energy Conservation				
64.	a) Details of power requirement and source of supply.	Since there is no any electrical operations, so electricity is not required but for office. 2 Nos. of DG. Sets are		

		kept on standby.
65.	b) Details of renewable energy (non -	0.5 KVA used from solar energy for
	conventional) used.	Lighting

Risk Management			
66.	(a) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	Sufficient measures are taken like First Aid Box etc	
67.	(b) Are proposals for fencing around the quarry satisfactory?(c) Storage of explosives/hazardous substance in detail(d) Facility for solid waste management	b)YES c) Designated storage area for explosives/hazardous substance d) Solid waste are mainly topsoil and overburden which are stacked separately	

	<i>v,</i> :	
	Socio Economic Impacts	
68.	a) Will the project cause adverse effects	
	on local communities disturbance to No.	
	on local communities disturbance to No. sacred sites or other cultural values. Fencing around quarry is done.	-
	What are the safe guards proposed?	
69.	b) Will the proposal result in any	
	changes to the demographic structure	
	of local population. If so, provide	
	details.	

70.		the CSR proposals satisfactory.		
	Sr.	Description	Amount in INR	Remarks
	1.	Construction / renovation of bus shelter at Chittadi and Odukurwith local panchayat permission.	4,00,000.00	2018-19
	2.	Distribution of School books to Primary school at Mangalam and Vandazhi - I village	50,000.00	Yearly
ı.	3.	Financial assistance to poor people of Odukur and chittadi village for marriages and festivals.	50,000.00	Yearly
	4	Repair and maintenance of road connecting Odukar to Chittadi	2,00,000.00	Yearly
	5	Construction of Toilets at mangalam&Vandazhi Government Schools	1,00,000.00	
	6	Supply of Drinking water by tankers to Chittady&Odukar villages	2,00,000.00	Yearly
		Total	10,00,000.00	

	Additionally, 1 percent of the annual Panchayath for Biodiversity Managemen	l profit shall be given to the concerned at Committee towards eco-restoration.
71.	d) What are the projects benefits in terms of employment potential?	About 40 people get employment directly and indirectly.

PART C

72.	Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details		
	Summary and Conclusion		
73.	a) Overall justification for implementation of the project.	 There will be no environmental impact from the project since the scale of operation is very minimum. There will be no major environmental impact due to proposed building stone quarrying. This operation doesn't need relocation of any habitats. The project provides employment opportunities to the people of surrounding area, in turn helps in improving the economic status of the present population. Provides raw material for the construction activities and other related activities. Also there are many similar quarry operations working in the vicinity. Considering the overwhelming aspects we requested to accord Environmental Clearance for this project. 	
74	b) Explanation of how adverse impact		

2. The proposal was considered in the 60th meeting of SEAC, Kerala, held on 28th and 29th July, 2016. The Committee appraised the proposal based on the mining plan, prefeasibility report and all other documents submitted along with the Form I application. The item is deferred for site inspection. The proponent agreed to revise the CSR by 10

have been mitigated.

lakhs/annum for 5 years in consultation with local panchayath and proper upkeep of approach road.

The 60th meeting of SEAC deferred the proposal for site visit. Subsequently, field visit to the Quarry project site of M/s Paramount Granites located in Survey Nos. Nos. 223 pt, 223/2, 223/6 pt, 118/14 pt, & 118/15 of Vandazhi - I Village, Alathur Taluk, Palakkad District, Kerala application of Sri. Vinu Mani, Managing Partner, M/s. Paramount Granites (File No. 664/SEIAA/EC1/5179/2014) was carried out on 04.03.2017 by the Sub-Committee of SEAC, Kerala, comprising Dr. Jayson E.A and Dr. K.G. Padmakumar. The representatives of the Proponent were also present at the site.

Sri. Vinu Mani, Managing Partner of M/s. Paramount Granites, 11/780, Odukoor, Chittadi (PO), Palakkad District, Kerala- 678706, vide his application received on 27.11.2015, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 223 pt, 223/2, 223/6 pt, 118/14 pt, & 118/15 of Vandazhi - I Village, Alathur Taluk, Palakkad District, Kerala State. The project site falls within Latitude: N: 10° 32'25.2" to N: 10° 32'32.3" and Longitude: E: 76° 31'56.3" to E: 76° 32'09.1". The land use classification as per revenue records is private own land with rubber plantation. The present land use is 3.8669 the current proposal is for the existing quarry with pit / quarry area of 3.8669 Hectares and mineral specific. Hence no alternate site was examined. The project is for quarrying of 3,00,000 tone per annum of building stone from the proposed lease area.

Mangalam Dam is at 2.5 km South and Pothundi Dam at 9.8 km East and Peechi Reservoir and sanctuary is at more than 10 km. Quarrying is being conducted since many years. This is an existing quarry was in operation with a short term quarrying permit issued by Mining & Geology Department, Govt of Kerala. The mining activity will have localized impact and create physical change in the existing environment due to the change in the land use. The method of operation is reported as through controlled blasting. The working faces are presently modified by the formation of benches. This quarry area falling in own land is moderately sloping to northwest, exposing hard rock, mostly fractured charnockite suite of rocks. Being an elevated land, streams are not seen in the site. The entire drainage from the quarry is channelized to a pond inside the quarry. Dwelling units are not seen in the immediate vicinity of 100 m. The water demand of the quarry is met from the bore well in the premises. The workers are provided with accommodation and canteen facilities.

Based on an overall evaluation of the site, following points may be considered:

- 1. Bench formation has been adopted recently. Main haulage is from the upper part on the eastern side.
- 2. Over burden is partly stored in a planned manner. It must be provided with protective support.
- 3. The approach road to the quarry from the main road is not maintained at all. This

- road must be maintained in good motorable condition by the proponent. Buffer distance from the road near the quarry may not be required as it ends at the quarry.
- 4. Dust suppression mechanism must be in place.
- 5. Vegetation is seen all around the quarry but must be maintained till the entire life of quarry.

Other items from general conditions and CSR may be added recommended for approval.

- 3. 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 quarry was not in operation while the Sub Committee members visited the site. The Committee decided to Recommend for issuance of EC subject to general conditions in addition to the following specific condition for mining.
 - 1. Over burden is partly stored in a planned manner. It must be provided with protective support.
 - 2. The approach road to the quarry from the main road is not maintained at all. This road must be maintained in good motorable condition by the proponent. Buffer distance from the road near the quarry may not be required as it ends at the quarry.
 - 3. 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.10 lakh (non-recurring) and Rs.10 lakh per annum (recurring) for CSR activities for the welfare of the local community in consultation with the local Panchayath.

4. The proposal was considered in the 69th meeting of SEIAA held on 1st June 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 above specific condition for mining as suggested by SEAC.

The conditions suggested by the inspection report should also be fulfilled. The premining conditions should be fulfilled before the mining is started. Rs.10 lakh (non-recurring) and Rs.10 lakh per annum (recurring) should be set apart for CSR activities for the welfare of the local community in consultation with the local Panchayath. As agreed by the proponent, 1 percent of the annual profit should be given to the concerned Panchayath for Biodiversity Management Committee towards eco-restoration. A notarised 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 5th cited, satisfying all the above conditions.

- 5. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed building stone quarry project in Sy. Nos. 223 pt, 223/2, 223/6 pt, 118/14 pt, & 118/15 of Vandazhi I Village, Alathur Taluk, Palakkad District, Kerala by Sri. Vinu Mani, Managing Partner of M/s. Paramount Granites, 11/780, Odukoor, Chittadi (PO), Palakkad District, Kerala- 678706 for an area of 3.8669 hectares, subject to the specific conditions as recommended by SEAC in para 3 above, all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I, EMP, PFR and Mining plan submitted to SEIAA. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining (items 1 to 61), appended hereto will be applicable and have to be strictly adhered to.
- 6. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and the undertakings in Chapter 4 (Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (Stacking of Mineral rejects and Disposal of waste) 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.
- 7. Validity of the Environmental Clearance will be five years from the date of this clearance, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.
- 8. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.
 - i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
 - ii. Instances of violation if any shall be reported to the District Collector, Palakkad 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. Vinu Mani, Managing Partner of M/s. Paramount Granites, 11/780, Odukoor, Chittadi (PO), Palakkad District, Kerala- 678706

Sd/-

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

To,

Sri. Vinu Mani,
Managing Partner
M/s. Paramount Granites,
11/780, Odukoor, Chittadi (PO),
Palakkad – 678706

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, Palakkad
- 6. The District Geologist, Palakkad
- 7. The Tahasildar, Alathur Taluk, Palakkad District, Kerala
- 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.
- 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 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.
- 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.
- 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.
- 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 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.
- All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'
- 59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
- 60. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.
- Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

For Member Secretary, SEIAA Kerala

