



सत्यमेव जयते

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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 quarry project of Shri.Shaji.K.Mathew., VKL Infrastructure Facilities (P) Ltd in Sy. No. 363/9-2, 363/ 8, 363/4, 366/4, 363/6, 363/2, 363/9-1,366/3, 362/5-2, 362/11, 362/12. at Manickal Village, Nedumangad Taluk Tiruvananthapuram for an area of 4.32.11 Hectares & in Sy No. 367/3, 362/10, 366/1, 374/13,362/1,366/2-1, 362/5-2-1, 362/5-2-2, 362/5-2, 362/2 at Manickal Village for an area of 4.03.94 Hectares - EC granted – Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No.753(A)/(B)/ SEIAA/EC1/302/2015

Dated, Thiruvananthapuram 13/9/2017

- Ref:**
1. Application received on 20.01.2015 from Sri Shaji.K.Mathew., VKL Infrastructure Facilities (P) Ltd, Manickal Village, Nedumangad Taluk Tiruvananthapuram District, Kerala
 2. Minutes of the 58th meeting of SEAC held on 28/29th June 2016
 3. Minutes of the 59th meeting of SEAC held on 11th and 12th July, 2016
 4. Minutes of the 62nd meeting of SEAC, Kerala, held on 06th & 07th September, 2016
 5. Minutes of the 68th meeting of SEAC, Kerala, held on 20th & 21st February 2017.
 6. Minutes of the 71st meeting of SEAC held on 20th and 21st April 2017.
 7. Minutes of the 69th meeting of SEIAA held on 1st June 2017.
 8. The Affidavit vide dated 4th July 2017 submitted in the office on 21/07/2017

ENVIRONMENTAL CLEARANCE NO. 65 /2017

Sri. Shaji K. Mathew, Director, M/s VKL Infrastructure facilities (P) Ltd, 1st floor , Anjana Complex, Kundanoor, Maradu.(P.O), Kochi, Kerala-682304, vide his application received on 30.01.2015, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 363/9-2, 363/ 8, 363/4, 366/4, 363/6, 363/2, 363/9-1,366/3, 362/5-2,, 362/11, 362/12 in Manickal village, Nedumangad taluk, Thiruvananthapuram District. The proposed project site falls within N 8°39' 13.3" to N 8°39' 22.6" & E 76°57' 07.9" to E76° 57' 18.0". The lease area consists of 4.32.11 hectares which is mineral specific. The proposed project is for quarrying of 1,00,000 TPA of building stone. And ii) for quarry project in Sy. Nos. 367/3, 362/10, 366/1, 374/13,362/1,366/2-1, 362/5-2-1, 362/5-2-2, 362/5-2, 362/2 in Manickal village, Nedumangad Taluk, Thiruvananthapuram district. The proposed project site falls within N 8°39' 18.6" N to 8°39' 27.3", E76°57' 06.0" to E76° 57' 16.3". The lease area consists of 4.03.94 hectares

of private land, which is mineral specific- granite building stone. Hence no alternate site was examined. The proposed project is for quarrying of 1,00,000 TPA of building stone.

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

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

I. Project details		
1.	File No.	753(A&B) /SEIAA/KL/302/2015 . Mining Plan Submitted on : 19.10.2015. Composite Mining Plan submitted on 11.01.2017 as directed by SEIAA
2.	Name /Title of the project	1.M/s.VKL Infrastructures Facilities (P) &VKL Projects India (p) Limited Granite Building Stone Quarry.
3.	Name and address of project proponent.	Shri. Shaji .K. Mathew, Director, M/S .VKL . Infrastructure, facilities (P) Ltd.&.VKL Projects India (P) Ltd 1 st floor , Anjana Complex, Kundanoor, Maradu.(P.O) Kochi, Kerala-682304. Phone no: 09656320109, 09447662519 E Mail -vklgranites@yahoo.in
4.	Owner of the land	Company owned- patta land
5.	Survey No. District/Taluk/ and Village etc.	1.Survey No: 363/9-2, 363/ 8, 363/4, 366/4, 363/6, 363/2, 363/9-1,366/3, 362/5-2,, 362/11, 362/12. Extent:4.32.11Hectre 2. 367/3, 362/10, 366/1, 374/13,362/1,366/2-1, 362/5-2-1, 362/5-2-2, 362/5-2, 362/2 Extent :04.03.94 Hectre Village : Manickal Taluk : Nedumangad District : Thiruvananthapuram.
6.	Details of period of lease or permit with number including the beginning and expiry date of lease/permit period(Copy to be attached).	1.Lease Order No: 113/2011-12/3739/M3/2011 Dated 26.05.2011 issued by Director of Mining and Geology.(Copy attached) Beginning date :26.05.2011 Expiry date: 29.05.2021. 2. Lease order No.01/2012-13/1924/M3/2012 dated 03.04.2012 Beginning date :03.04.2012 Expiry date: 03.04.2022

7.	<p>Present Status of the project</p> <p>a. Date & Year of starting the work of the quarry project.</p> <p>b. whether the quarry is working at present or not ?</p> <p>c. If stopped working since when?</p>	<p>a. Not operational for want of renewal of Panchayat License in the absence of EC.</p> <p>b. Not working</p> <p>c. 31.03.2016</p>
8.	<p>Date of submission of Application</p>	<p>EC Application Submission on : 20.01.2015 Mining Plan Submitted on : 19.10.2015. Composite Mining Plan submitted on 11.01.2017 as directed by SEIAA.</p>
	<p>Brief description of the project.</p>	<p>753.A. V.K.L Infrastructure facilities(P)LTD has obtained quarry lease as per proceedings NO :113/2011-12/3739/M3/2011 Dated 26-05-2011 of Director of Mining and Geology ,for a period of 10 years ending on 29-05-2021 for the operation of granite building stone quarry in 4.32.11 Hectares in company's patta lands in Manickal village, Nedumangad Taluk Thiruvananthapuram – District. The company has obtained approval for mining plan to produce 1,00,000 metric tonnes of building stone per annum. And the mining plan in original was submitted on 19.01.2015 . As per the EIA Notification 2006, the company has applied for Environmental Clearances with relevant documents.</p> <p>753.B V.K.L Projects India (P)LTD has obtained quarry lease as per proceedings NO :01/2012-13/1924/M3/2012 Dated 03.04.2012 of Director of Mining and Geology ,for a period of 10 years ending on 03-04-2022 for the operation of granite building stone quarry in 4.03.94 Hectares in company's patta land in Manickal village, Nedumangad Taluk Thiruvananthapuram – District. The company has obtained approval for mining plan to produce 1,00,000 metric tonnes of building stone per annum. The mining plan in original was submitted on 19.01.2015 . Composite Mining Plan submitted on 11.01.2017 as directed by SEIAA Composite Mining plan was submitted on 11.01.2017 . As per the EIA Notification 2006, the company has applied for Environmental Clearances with relevant documents</p>
9.	<p>Details of Authorized</p>	<p>Shri. Shaji .K. MATHEW, Director,</p>

	Signatory and address for correspondence	M/S .VKL . Infrastructure, facilities (P) Ltd,& VKL Projects India (p) Limited 1 st floor , Anjana Complex, Kundanoor, Maradu.(P.O) Kochi, Kerala-682304. Phone no: 09656320109, 09447662519 E Mail - vkigranites@yahoo.in
II. Land Details		
10.	1. Extent of area in hectares	753 (A &B) /SEIAA/KL/302/2015 . 8.36.05 Hectre(4.03.94+4.32.11)
11.	2. Is the property forest land/Govt. land/own land/patta land	Patta land
12.	3. Quantity of top soil/over burden produced and managed	753.A The top soil is fine grained red in colour and occurring to a thickness of 1.5 m. The over burden is consisting of weathered gneiss to a thickness of 2.0 m. Top soil :30,580 metric tonnes Overburden : 1,12,895 metric tonnes 753.B The top soil is fine grained red in colour and occurring to a thickness of 1.5 m. The over burden is consisting of weathered gneiss to a thickness of 2.0 m. Top soil :76008 metric tonnes Overburden : 403444 metric tones
13.	4. Latitude and Longitude	753.A Latitude : 08°39' 13.3"N to 08°39' 22.6"N Longitude : 76°57' 07.9"E to 76° 57' 18.0"E 753 B. Latitude : 08°39'18.6"N To 08°39'27.3"N Longitude : 76°57'06.0"E To 76°57'16.3"E
14.	5. Topography of land and elevation	753.A The physiography of the lease area and its surrounding is a part of elevated and undulated terrain with trees , bushes and shrubs. The topography of the lease area is hilly , the highest elevation of the lease area MSL220 m and the lowest level 190 m (Average Depth: 30 m). Rain water is flowing through Eastern and Western slopes in the dentritic patter and joins in the seasonal nallah. 753.B.The Physiography of the lease area and its surrounding is a part of elevated and undulated terrain with trees , bushes and shrubs. The topography of the lease area is hilly, the highest elevation of the lease area MSL 220 m and the lowest level 195 m (Average Depth: 25 m). Rain water is flowing through Eastern and Western slopes in the dentritic patter and joins the seasonal nallah.
15.	6. Slope analysis	753 A &B The lease area is located on the hill slope. The slope area consists of top soil 1.5 m thickness and weathered gneiss overburden to a thickness of 2.0 m. The area is under quarry operations. The hard massive charnockites rock is existing below the overburden. Based

		charnockites rock is existing below the overburden. Based on the geological formations, granitic rock is extending to a deeper depth. since it is of plutonic origin.
16.	7. Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	Nil
17.	8. Access road to the site width and condition	Access Road is starting from Vembayam to Moonanakuzhi road at a distance of 50 m. The access road is being maintained 7.5 to 10 m width for the movement of trucks.
18.	9. Will there be any adverse impact on the aesthetics of the proposal site	The aesthetic of the hill slope will be changing during quarry operation to the mine safe benches. It will be subsequently rehabilitated with thick green belt formations. The creations of rain harvesting ponds and raising of Bio diversity plants required for human beings and animals habitations will bring the new aesthetic beauty to the surroundings.
III. Mining details		
19.	a) Minimum and Maximum height of excavation.	220.0 MSL maximum level , 145.0 MSL minimum level, Avg Depth 40 mtr.
20.	b) Life of mine proposed.	753 A 16 years 753 B 22years
21.	c) Underground mining if any proposed	No
22.	d) Method of Mining	Open Cast – Semi Mechanized Quarry
23.	e) Distance from the adjacent quarry	753 A .280mtrs-Covenant Stones Pvt .Ltd quarry 753 B 505 mtrs- Covenant Stones Pvt .Ltd quarry.
24.	f) Cluster condition if any	No
25.	g) Has "No cluster certificate" submitted?	Yes
26.	h) Distance from nearby habitation	Nearest house 105 m from lease area . Nearest village is Manickal 1 km .Thick habitation is in the village Vembayam-4 km from the quarry.
27.	i) Distance from nearby forest, if applicable	Nil. There is no forest land in the nearby areas.
28.	j) Distance from protected area, Wildlife Sanctuary,	Wild life sanctuary 25km Peppara wild life sanctuary Agasthyakoodm Reserve Forest- 33 km Biosphere –Peppara wild life sanctuary – 25 km

	National Park etc.	
29.	k) Distance from nearby streams/rivers/National Highway and Roads	Water body nil. Nearest SH road : SH-1 - 3.0 km (Trivndrum-Kottayam) NH road: NH -47 - (Kanyakumari- Mumbai)-6.0 km
30.	l) Is ESA applicable? If so distance from ESA limit	The quarry lease area is located in Non-ESA Zone. Located in WGEEP – ESZ3
31.	m) Has approved mining plan, prepared by RQP submitted?	Yes. Approved mining plan Prepared by RQP – Original submitted
32.	n) Capacity of production in TPA	753 A 1,00,000 metric tonnes 753 B 1,00,000 metric tones
33.	o) Details of mining process	The mining will be done open cast semi-mechanized method. The bench height and width will be maintained at 5 m and 6 m respectively. Drilling will be carried with diesel compressors. The diameter of the hole is 32mm and the depth of the hole would be 1.5 to 2.00m. Burden and spacing will be 3.00m each. Nitrate mixtures (Class-2), safety fuse; electric or ordinary detonators will be use for blasting. The blasting will be done by the qualified blaster under the supervision of mine manger.
IV. Details of Project cost		
34.	a) Land cost	Rs.50,00,000
35.	b) Plant and Machinery	Rs .1,50,00,000
36.	c) Total Cost	Rs.2.00 crores
37.	V. Financial Statement including funding source and details of insurance etc.	Financial status of the company is sound. The company is doing quarry operations and Building stone trading for the past ten years.
38.	Management Plan	Air Pollution Quarry operation will produce dust and will pollute the air. Dust will be arrested at the dust arising places itself with frequent water sprinkling.
		Water Pollution There will be no change in the existing drainage system; due to the proposed quarrying activities. No change in the existing status is envisaged. Necessary control measures like chlorination etc in the well will be made.
		Noise Drilling machines and vehicle movements will produce noise.

			<p>To keep the noise level under control within the limits, proper maintenance of these machines will be done and sound guard is provided for compressor and other machines.</p> <p>Creation of green belt of dense foliage between mine areas and residential areas will act as sound barrier and noise transmission will be arrested.</p>	
		Solid Waste Management	<p>Total quantity of Top soil 76008 Tons & quantity of Overburden 403444 metric tonnes will be handled during the life of the mine. Top soil will be used for plantation and the waste rock will be used for refilling, levelling of roads. It will be temporarily dumped in Southern side of the Lease Area.</p>	
		Eco-restoration	<p>To maintain Eco restoration, periodical afforestation and maintenance of the plantation will be made, rain harvesting and dust controlling will be done. Mining will be carried by Eco-friendly method.</p>	
39.	VI. Whether Environment Management Plan or Eco restoration Plan satisfactory?	<p>This being a small quarry operation, insignificant impact will arise under this project. Fugitive dust emissions from drilling movement of vehicles, emission will be controlled to insignificant levels by frequent water spraying on roads, black toppings of road where ever possible, good maintenance practices and forming of thick green belt. Monitoring and mitigate measures given in environment management plan will be strictly implemented. The Eco-restoration programme given in the approved mining plan will be implemented. The project environment plan and eco – restoration plan will set a precedence in the area for environmental preservation and socio economic improvement.</p>		
40.	VII. Does it suggest mitigation measures for each activity	<p>Yes. Entire quarry operation activity will be carried by taking suitable effective control measures to avoid any damage to the surrounding environments. During monsoon, the rain water will be diverted through the garland drainage channels, without entering into the quarry pit. Check dams are constructed in the drainage channel to control the storm water and to settle the</p>		

		turbidity and slushy materials in the rain water. EIA study have been carefully made and specific Environmental plan have been scheduled. All the mitigate measures in EMP for each environ will be respectively followed .
41.	VIII. If Pre-Feasibility Report (PFR) satisfactory	Yes. As per the guidelines given by the Dept of SEIAA, the Pre Feasibility have been made .Geological formation and topographic conditions have studied and given in the PFR. Geological reserves , mineable reserves quantity of top soil removal and the quantity waste rock handling have been estimated. Further to operate the quarry , with personal safety and environmental safety , all the measures and mitigate action have been planned and briefed in PFR. It is assured that this quarry project can be operated for 16 years based on the present rate of production.
42.	IX. Does it need public hearing	Not required. The quarry lease have already been granted. The lease area is less than 25 hectares. For the operation of quarry Environmental Clearance is applied.
43.	X. Details of litigation and Court verdict if any	Nil
44.	XI. Details of public complaint, if any	Nil
45.	XII. Details of statutory sanction required	Nil
46.	XIII. If CRZ recommendation applicable?	Nil
PART B		
Environment Impact Assessment and Mitigation Measures		
Impact on water		
47.	a) Details of water requirement per day in KLD	Daily requirement of water – 5.00 KLD Domestic – 1.00 KLD Dust control and plantation - 4.00 KLD Rain water collected in the quarry pit will be used. For domestic use water will be drawn from dug wells in the project site.
48.	b) Water source/sources.	Daily requirement of water – 5.00 KLD Domestic – 1.00 KLD Dust control and plantation - 4.00 KLD

		Rain water collected in the quarry pit will be used. For domestic use water will be drawn from dug wells in the project site.
49.	c) Expected water use per day in KLD.	5 KLD, 1.00 KLD DOMESTIC, 4.00 KLD Dust control Plantation, dug well and rain water.
50.	d) Details of water requirements met from water harvesting.	Rain water harvesting ponds proposed during post mining extending over an area of 0.05.07 Hectare in the bottom level of mining Pit and 0.45.00 Hectare inside the Lease area (Applicant's own land) Sy no. 363/4,8,9,6.
51.	e) What are the impact of the proposal on the ground water?	NIL. Quarrying will not intersect ground water table and will not disturb the drainage system.
52.	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	About 4.00 KLD – Rain water collected in the quarry pit, will be used for dust suppression and green belt.
53.	g) What is the incremental pollution load from waste water generated from the proposed activities?	Nil. Only solid stone waste will be generated in the quarry operation. It will be used for refilling of the quarry pit, road leveling etc.,
54.	h) How is the storm water from within the site managed?	Garland, drainage channel around the quarry pit and dumps and check dam will be constructed. Storm water will be diverted to join with natural drainage system.
Impact on Biodiversity and Eco restoration Programmes		
55.	a) Will the project involve extensive clearing or modification of vegetation (Provide details)	Part of the area is under the quarry operations. The area is covered mostly with bushes and shrubs. In the company's adjacent lands coconut, mango trees, thekku Plantations are existing, which will not be disturbed.
56.	b) What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	753 A The lease area is in rocky terrain. Plantation will be raised in the safety zone area, dump slopes and in company's own lands. Biodiversity species will be planted in about 1600 Nos. will be raised in 0.70.00 Hectares. 753 B The lease area is in rocky terrain. Plantation will be raised in the safety zone area, dump slopes and in company's own lands. Biodiversity species will be planted in about 1100 Nos. will be raised in 0.48.30 Hectares.

57.	<p>c) Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ?</p> <p>d) Presence of any endangered species or red listed category (in detail)</p>	<p>c) Due to this project, there will not be displacement of Faunas.</p> <p>d) No endangered species or red listed category</p>
Impact on Air Environment		
58.	a) What are the mitigation measures on generation of dust, smoke and air quality	<p>Mining activities like drilling, blasting, loading and transport vehicle will generate dust.</p> <p>Mitigate action ion</p> <ul style="list-style-type: none"> - Water spraying on haul roads, loading points will be done. - Provisions of dust filters / masks to worker working at the dust prone areas. - Thick green belt all along the periphery of the lease area will be made. - Periodical monitoring of Ambient Air Quality in and around the lease area will be done. Necessary measures will be taken immediately to arrest the pollution. - Drill machines will be equipped with dust collector. <p>Wet drilling methods will be adopted.</p>
59.	b) Details of internal traffic management of the site.	<p>Traffic – about 300 metric tonnes per day building smetrictonnes rubbles will be handled. For transportation 6Nos of 20 metric tonnes tipper will be used. In a regular shift 4 Nos of tipper will be used and making 2 to 3.trips.</p>
60.	c) Details of noise from traffic, machines and vibrator and mitigation measures	<p>During base line data collection, Ambient sound level study is conducted for 24 Hrs. In day time the values recorded is 50.7dBA to 55.4dBA and in the night it ranges 36.5dBA to 49.1dBA. in the Eco friendly quarry operations, Noise level will be controlled by proper maintenance of machinery, air compressors for drill shall have acoustically covered to control the noise.</p>
61.	d) Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	<p>Working machineries, drilling, blasting and plying vehicles will produce noise.</p> <p>Proper maintenance of machinery will control the noise.</p> <p>Use of earmuffs and ear plugs for workers, working in noise area.</p> <p>Creation of wide green belt of dense foliage between mine areas and residential areas will</p>

		reduce noise.
62.	e) Air quality monitoring in detail	<p>Mining activities like drilling, blasting, loading and transport vehicle will generate dust.</p> <p>Mitigate action</p> <ul style="list-style-type: none"> - Water spraying on haul roads, loading points will be done. - Provisions of dust filters / masks to worker working at the dust prone areas. - Thick green belt all along the periphery of the lease area will be made. - Periodical monitoring of Ambient Air Quality in and around the lease area will be done. Necessary measures will be taken immediately to arrest the pollution. - Drill machines will be equipped with dust collector <p>Wet drilling methods will be adopted.</p>
Energy Conservation		
63.	a) Details of power requirement and source of supply.	For quarry operation, no electricity is required as the drilling unit is operated by HSD. The power supply is required for office and work shop will be met through KSEB supply.
64.	b) Details of renewable energy (non – conventional) used.	No Electricity is required for quarry operation renewable energy is not studied.
Risk Management		
65.	a) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	<p>The risk of accident is envisaged during operation of transport vehicle. Accidents may arise by improper transport operations or improper storage or handling of fuel oil. However proper control measures are planned and will be put in place, besides giving training to the workers involved in the above mentioned activities.</p> <p>First aid trainers will be engaged and first aid room will be maintained with medicines as per practical norms.</p> <p>In order to handle disaster / emergency situations an organizational chart entrusting responsibility to various project Personnel will be prepared with their specific roles during emergency and will be made them ready to manage the situations.</p>
66.	b) Are proposals for fencing around the quarry satisfactory?	<p>b)The periphery of quarry lease area will be completely made with barbed wire fencing to prevent unauthorized entries of people and avoiding animals entering the quarry operational areas.</p> <p>c)The company has obtained explosive licences for</p>

	<p>c) Storage of explosives/hazardous substance in detail</p> <p>d) Facility for solid waste management</p>	<p>magazines. Explosives will be procured, stored, transported, handled and used in accordance with Indian Explosives Rules 2008 , Mines Act 1952 and regulations there under. Magazine Licence No: E/SC/KL/22/1477(E69202) dated 21.03 2017 Valid up to : 31.03.2022.</p> <p>d) Solid waste will be used for levelling , paving of roads , owner's construction works Solid waste will be stored temporarily on the southern side over an extent of 0.56.67 hectare . In Sy No : 363/4,8,9,6.</p>															
Socio Economic Impacts																	
67.	<p>1) Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?</p>	<p>The project will not cause adverse effects of local communities. It is predicted on the socio economic front, the impact due to this project will have positively increase more employment opportunities for local Inhabitants.</p> <p>The company will give vocational training to nearby village people. There are no resettlements and rehabilitation issue involved in this project. The infrastructure of the company will be of use to the people of the area. The company's CSR programs will uplift the local society for better standard of social living.</p>															
68.	<p>2) Will the proposal result in any changes to the demographic structure of local population. If so, provide details.</p>	<p>The company's CSR programs will uplift the local society for better standard of social living.</p>															
69.	<p>3) Are the CSR proposals satisfactory. Give details</p>	<table border="1"> <thead> <tr> <th colspan="3">Common CSR Activities already carried out</th></tr> <tr> <th>Sl.No</th><th>Particulars</th><th>Amount in Rs.in lakhs</th></tr> </thead> <tbody> <tr> <td>01.</td><td>Flood Relief (Mathrubhoomi -- Dec.15 , Chennai Flood Relief --Dec.15)</td><td>65.00Lakhs</td></tr> <tr> <td>02.</td><td>School & Education Trust (MSC LP School - Kannamcode -- Feb.16, YR Gaitonde Medical Trust -- Dec.15)</td><td>16.00 Lakhs</td></tr> <tr> <td>03.</td><td>MalayalaManoramaCharitable Trust --Dec.15</td><td>15.00</td></tr> </tbody> </table>	Common CSR Activities already carried out			Sl.No	Particulars	Amount in Rs.in lakhs	01.	Flood Relief (Mathrubhoomi -- Dec.15 , Chennai Flood Relief --Dec.15)	65.00Lakhs	02.	School & Education Trust (MSC LP School - Kannamcode -- Feb.16, YR Gaitonde Medical Trust -- Dec.15)	16.00 Lakhs	03.	MalayalaManoramaCharitable Trust --Dec.15	15.00
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03.	MalayalaManoramaCharitable Trust --Dec.15	15.00															

				Lakhs
		04.	Nallapadam (Manorama - Endosulfan victims) – Nov.15	25.00 Lakhs
		05.	Mar Gregorious Marriage Aid- Nov.15	25.00 Lakhs
		06.	Ravindran Nair (Housing assistance)	5.50 Lakhs
			Total	1.0Crore 51.5 Lakhs
70.	4) What are the projects benefits in terms of employment potential?	<ul style="list-style-type: none">• This project will give direct employment to 18 persons and indirectly about 100 persons.• The living condition and economic status of nearby village people and their education, social status will be considerably improved through Corporate Social Responsibility programs. Rs.4.00.lakhs per year will be distributed, with out fail.• The quarried stone will be supplied to local market for building constructions roads and bridges etc., thus contributing to infrastructure development of the region.• Our company is doing business and quarry operations in this area for the past 10 years• The company has brought improvement in physical and social infrastructure in this area. <p>There will be good social upliftment in this area along with visible biological improvement due to green belt creation etc</p> <p>The company will be doing Eco friendly method of quarrying .it is hereby rest assured that due to quarry operation there will not be any environmental disturbance to the surrounding area.</p>		
PART C				
71.	Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	<p>The company has engaged Sr.Geologist well versed in MoEF rules and notifications. The company has made a careful EIA study and EMP program is scheduled relatively. The company is directly submitting the application and EMP proposals.The Mine layout drawings are prepared by Mines Surveyor approved by Directoroate of Mines Safety.The Geologist RQP Ce rtificate is enclosed Approved Mining Plan for the project is enclosed.</p>		
Summary and Conclusion				
72.	a) Overall justification for implementation of the project.	<ul style="list-style-type: none">• Our company is doing business and quarry operations in this area for the past 10 years• The company has brought improvement in physical and social infrastructure in this area. <p>There will be good social upliftment in this area along with visible biological improvement due to</p>		

		<p>green belt creation etc</p> <ul style="list-style-type: none"> The company will be doing Eco friendly method of quarrying . <p>It is hereby assured that due to quarry operation there will not be any environmental disturbance to the surrounding area.</p>
73.	b) Explanation of how adverse impact have been mitigated.	No adverse impact in the area is anticipated .as the applicant will follow all the guidelines issued by the Committee.

2. The matter was first placed in 58th meeting of SEAC held on 28/29th June 2016 since the proponent has submitted the approved mining plan as per KMMC Rules-2015. The proposal involves two mining plans and two form 1 applications in a single application file. So the committee decided to request the Secretary to sort out the confusion and place before the committee as individual applications. Hence the item was deferred for considering in next meeting.
3. In the 59th meeting of SEAC held on 11th and 12th July, 2016 these two firms, VKL Infrastructure facilities (P) Ltd., and VKL Projects India (P) Ltd were assigned file numbers 753(A)/SEIAA/EC1/ 302/2015 and 753(B)/SEIAA/EC1/302/2015 as agenda item no. (59.06&59.07). While presenting the first item, 753(A)/SEIAA/EC1/302/2015 it was observed that mine closure cum conceptual plan is common to both proposals. Hence Committee decided to appraise both the proposals as single unit. On discussion the proponent revealed that the District Geologist vide its letter no. 2994/DOT/ML/2015 dated 14/10/2015 addressed to SEIAA recommended that the leases has to be worked together with approval for composite eco- friendly mining plan and same may be considered for EC. So, SEAC appraised both proposals as a single composite proposal. The proposal is deferred for field visit being near to Thampuran Para site and for the following clarifications.
 1. Site map showing how to reach the site.
 2. Cadastral Map showing total area and quarrying area.
 3. More realistic CSR.

Report of the field visit on 19.08.2016

Field visit to the Quarry project sites of *M/S VKL Infrastructure facilities (P) Ltd* and *M/s VKL Projects India (P) Ltd*, Manickal village, Nedumangad Taluk, Thiruvananthapuram district, Kerala was carried out on 19.08.2016 by the sub-committee of SEAC, Kerala, comprising Sri. P. Sreekumaran Nair and Sri. John Mathai. The Proponent along with his team was present at the site at the time of site visit. Considering the fact that the two projects

are adjacent to each other under the same management and with a common mining plan, a common report is given.

The project is located at about 3 km northeast of Vembayam on MC road. The proposed two quarry leases are in own land covering an area of 4.32 ha and 4.04 ha and occupy the eastern slopes an elevated hill ridge exposing hard rock. Though isolated old pits are seen, these two areas are yet to be developed as a quarry. Another working quarry, under the label Covenant Stone for which EC has been given, is seen further south of this area. The rock type in the lease area is banded gneiss. Boundary is partly fenced and corner pillars erected with GPS coordinates painted on them. On the lowest slope, crusher unit is being erected. The storm water from the entire area is presently not channelized. On the western side of the lease land is the highest point in this locality which is popularly known as Thampuran Para, a Govt poramboke rocky hill ridge. Close to this Thampuran para a DTPC building has also been constructed recently. The Thampuran para temple is located about 250 m further west on the west sloping face. Landuse in the lease area is mostly rubber and other shrubs. OB is thin and limited to pockets. Floral and faunal biodiversity is not observed as the area is mostly barren or disturbed. Dwelling units are not seen within 100 m of the lease area. On the extreme south-eastern corner, within the land recently acquired by the firm, a household deity is seen located. This appears to be in ruins and does not have any approach too. Based on an overall evaluation of the site, following aspects may be considered before it is recommended for EC

- *Map showing all lands in possession and the proposed quarry lease area within this land. The adjacent Govt. Poramboke land and the location of the DTPC building should also be marked.*
- *The certificate that the proposed quarry area is not assigned for any special purposes.*
- *A narrow belt of land of about 10 m width is left between the two lease areas as a no development zone. An explanation is needed why this zone is left out of the lease area.*
- *Considering the presence of a DTPC building and the intended use of this elevated hillock as a place of local tourism, a buffer distance of 100 m must be left as a no development zone from the line connecting the top points on two rocky knobs of Thampuran para and the eastern edge of DTPC building.*
- *Top soil and Over burden should be stored in a designated place on the lower slope away from the working area (on the eastern side) and provided with protective support walls.*

- *A catch water drain to be provided all along the lowest part and channelized into a pit that is supposed to function as a RWH structure. Water must be clarified before it is let out.*
- *Assurance that green belt will be provided around the periphery.*
- *Boundary pillars are to be permanently fixed on the ground. Fencing should be provided all around the quarry area.*
- *A small plot of say 0.5 ha may be identified within the land belonging to the proponent for replanting and nurturing rare plants that are seen in the locality*
- *An assurance that the location of the local deity (in ruins) is currently not a place of worship*
- *Statutory facilities like drinking water, canteen, place to rest etc. should be provided to the workers in the quarry.*
- *The quarry should have the Proponent for replanting and nurturing rare plants that are seen in the locality*
- *An assurance that the location sign boards displayed at appropriate places.*
- *The survey marks along the village boundary should be left intact.*
- *Providing solar panels on the roof of the crusher unit may also be considered.*

The CSR activities need to be specific. A revised CSR may be provided as suggested in the meeting.

4. The proposal was considered in the 62nd meeting of SEAC, Kerala, held on 06th & 07th September, 2016. The Committee appraised the proposal based on the mining plan, pre-feasibility report, field inspection report and all other documents submitted by the proponent. The Committee felt that since bits of land involved in two mining plans are contiguous and operated by the same proponents and there is a recommendation from the District Geologist for treating both the areas as a single unit, it is advisable to have a composite mining plan. Hence the Committee decided to defer the item for a composite mining plan.

Subsequently the proponent has submitted the Composite mining plan sought by the 62nd SEAC.

5. The proposal was again considered in the 68th meeting of SEAC, Kerala, held on 20th & 21st February 2017. The Committee verified the additional documents submitted by the proponent and deferred for asking further clarifications from the proponent regarding
 - Map showing all lands in possession and the proposed quarry lease area within this land. The adjacent Govt. Poramboke land and the location of the DTPC building should also be marked.
 - The certificate that the proposed quarry area is not assigned for any special purposes.

Subsequently, the proponent has submitted the documents sought by the 68th SEAC.

6. The proposal was again considered in the 69th meeting of SEAC held on 09th & 10th March 2017. The Committee appraised the proposal based on the revised composite Mining Plan, Pre-feasibility Report, field visit report, additional documents and all other documents submitted along with Form1. The Committee verified the additional documents submitted by the proponent and found that the certificate from Village Officer is not adequate. So, The Committee decided to defer the item for the submission of the copy of the certificate prescribed in Rule 27, 2(f) of KMMC Rules.

The proponent has submitted the Certificate from Village Officer.

7. The proposal was considered in the 71st meeting of SEAC held on 20th and 21st April 2017. The Committee verified the additional documents submitted by the proponent and decided to Recommend for issuance of EC subject to general conditions in addition to the following specific condition for mining.

1. *Considering the presence of a DTPC building and the intended use of this elevated hillock as a place of local tourism, a buffer distance of 100 m must be left as a no development zone from the path connecting the top points on two rocky knobs of Thampurampara and the eastern edge of DTPC building.*
2. *Top soil and over burden should be stored in a designated place on the lower slope away from the working area (on the eastern side) and provided with protective support walls.*
3. *A catch water drain to be provided all along the lowest part and channelized into a pit that is supposed to function as a RWH structure. Water must be clarified before it is let out.*
4. *Boundary pillars are to be permanently fixed on the ground. Fencing should be provided all around the quarry area.*
5. *Production of Certificate as prescribed in Rule 27.2 (f) in Kerala Minor Mineral Concession Rule, 2015. This Certificate may be submitted to SEIAA.*

A commitment may be obtained from the proponent to set apart Rs.16 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 Panchayat.

The proponent vide email dated 20th May 2017 submitted the Lease order Nos are 113/2011-12/3739/M3/2011 Dated 26.05.2011 and 01/2012-13/1924/M3/2012 dated 03.04.2012 and the expiry date of lease are 26.05.2021 and 03.04.2022 respectively. The proponent also stated that the quarry is not working now.

8. 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 following specific condition for mining.

1. *Considering the presence of a DTPC building and the intended use of this elevated hillock as a place of local tourism, a buffer distance of 100 m must be left as a no development zone from the path connecting the top points on two rocky knobs of Thampuranpara and the eastern edge of DTPC building.*
2. *Top soil and over burden should be stored in a designated place on the lower slope away from the working area (on the eastern side) and provided with protective support walls.*
3. *A catch water drain to be provided all along the lowest part and channelized into a pit that is supposed to function as a RWH structure. Water must be clarified before it is let out.*
4. *Boundary pillars are to be permanently fixed on the ground. Fencing should be provided all around the quarry area.*
5. *Production of Certificate as prescribed in Rule 27.2 (f) in Kerala Minor Mineral Concession Rule, 2015. This Certificate may be submitted to SEIAA.*

The conditions suggested by the inspection report should also be fulfilled. The premining conditions should be fulfilled before the mining is started. Rs.16 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. An affidavit that all the above conditions shall be fulfilled, should be submitted before the issuance of EC. Item No.(5) (Production of Certificate) should be submitted before the issue of EC. The proponent has submitted the affidavit fulfilling the specific conditions of SEIAA & SEAC. SEIAA may verify this in due course as part of post EC monitoring.

9. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed building stone quarry project in Sy.No.363/9-2, 363/8, 363/4,366/4,363/6,363/2, 363/9-1,366/3, 362/5-2, 362/11, 362/12. at Manickal Village, Nedumangad Taluk Tiruvananthapuram for an area of 4.32.11 Hectares & in Sy No. 367/3, 362/10, 366/1, 374/13,362/1,366/2-1, 362/5-2-1, 362/5-2-2, 362/5-2, 362/2 area of 4.03.94 Hectare of Manickal Village, subject to the specific conditions as recommended by SEAC in para 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.
10. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and the undertakings in

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 Mining(Chapter 4) Blasting(Chapter5), Mine Drainage (Chapter 6) EMP (Chapter 9) Progressive Mine Closure Plan (Chapter 11) of the Mining Plan as submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

11. Validity of the Environmental Clearance will be five years from the date of this clearance, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.
12. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.
 - i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
 - ii. Instances of violation if any shall be reported to the District Collector, 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 Shaji.K.Mathew, Director, M/s.VKL.Infrastructure, facilities(P) Ltd & VKL Projects India (P) Ltd, 1st Floor, Anjana Complex, Kundanoor, Maradu(P.O), Kochi, Kerala – 682 304.

Sd/-

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

To,

Sri Shaji.K.Mathew,
M/s VKL Projects India (Pvt) Ltd,
1st Floor, Anjana Complex, Kundannoor, Maradu (PO).,
Kochi – 682 304.
Kerala

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, Thiruvananthapuram
6. The District Geologist, Thiruvananthapuram
7. Tahasildar, Nedumangad Taluk, Thiruvananthapuram
8. Chairman, SEIAA.
9. Website.
10. S/f
11. O/c



Forwarded /By Order

Administrator (SEIAA)

SECRET

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

