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Validity expires on 22.06.2022

Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: SEIAA- Environmental clearance for the quarry project in Sy. No. 126/2/1, 119/1/1, 119/1, 119/1/2, 120/4, 120/2, 120/5pt., at Veliyannoor Village, Veliyannoor Panchayat, Meenachil Taluk, Kottayam District, Kerala by Sri. Jose J. Kappan, M/s Kappan Granites - EC granted – Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No.875/SEIAA/EC4/3106/2015 ***Dated,Thiruvananthapuram, 23.06.2017***

Ref:
1. Application dated 05/08/2015 from Sri Jose J. Kappan Managing Partner M/s Kappan Granites, Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via.,Kottayam, District Kerala-686662
2. Minutes of the 64th meeting of SEAC held on 16th & 17th November, 2016.
3. Minutes of the 67th Meeting of SEAC held on 27th January 2017.
4. Minutes of the 65th Meeting of SEIAA held on 22nd March 2017
5. Affidavit dated.17.04.2017 from Sri Jose J. Kappan, M/s Kappen Granites

ENVIRONMENTAL CLEARANCE NO.43/2017

Sri Jose J. Kappan Managing Partner M/s Kappan Granites, Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via., Kottayam, District Kerala-686662 vide his application received on 05/08/2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 126/2/1, 119/1/1, 119/1, 119/1/2, 120/4, 120/2, 120/5pt., at Veliyannoor Village, Veliyannoor Panchayat Meenachil Taluk, Kottayam District, Kerala-686662 for an area of 2.3815 hectares. The project comes under Category B/B2, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of Ministry of Environment and Forests.

The proposed project site falls within Latitude N 09° 50′ 44.16″ to 09° 50′ 49.86″ and Longitude E 76° 37′ 36.38″ to E 76° 37′ 44.65″. The current proposal is for the existing quarry and mineral specific hence no alternate site was examined. The proposed quarry project is interlinked with Crusher Unit existing within the complex. The project site is private owned land. There is expected to be change in the land use as mining area in the core zone. The highest elevation of the lease area is 145 m. MSL and lowest is 110 m MSL. As the proposed area is hilly, the drainage is towards south-east. However, any other significant impact will be confined within the lease area. The total quantity of 5,239 cu. m of topsoil and 3,572 cu. m.

of over burden will be removed during the mining operations. The sewage to a tune of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The water to a tune of 1 KLD will be drawn from the wells for domestic purpose. The total power requirement will be 75 kW, which will be drawn from diesel engine. Fuel Quantity – 16 to 20 lt/hr. About 5,239 cu. m of top soil and 3,572 cu. m of overburden will be generated from the proposed mine.

BASIC INFORMATION OF QUARRY PROJECT

PART A

Project details		
1.	File No.	875/SEIAA/EC4/3106/2015
2.	Name /Title of the project	Environment Clearance for Quarry project of M/s Kappen Granites
3.	Name and address of project proponent.	Mr. Jose J. Kappan, Managing Partner, M/S KAPPEN GRANITES Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via., Kottayam District, Kerala-686662.
4.	Owner of the land	M/s Kappen Granites
5.	Survey No. District/Taluk/ and Village etc.	Survey Nos. 126/2/1, 119/1/1, 119/1, 119/1/2, 120/4, 120/2, 120/5 pt of Veliyannoor Village & Panchayat, Meenachil Taluk, Kottayam District, Kerala
6.	Nature of the proposal – lease or permit with evidence.	Proposed quarry proposal for an area of 2.3815 ha.
7.	Date of submission of Application	31-07-2015
8.	Brief description of the project.	Quarry project with an area of 2.3815 ha. & proposed production capacity of 60,000 MTA
9.	Details of Authorized Signatory and address for correspondence	Mr. Jose J. Kappan, Managing Partner, M/S KAPPEN GRANITES, Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via., Kottayam District, Kerala-686662.
Land Details		
10.	a) Extent of area in hectares	2.3815 ha.
11.	b) Is the property forest land/Govt. land/own land/patta land	Private own land
12.	c) Quantity of top soil/over burden	A total quantity of 5,239 cu. m. of topsoil and 3,572 cu. m of over burden will be removed during the mining

	produced and managed	operations. The topsoil excavated from the quarry will be dumped separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation. OB will be utilized for laying internal haul road and will form base in reclamation / plantation.
13.	d) Latitude and Longitude	Latitude (N): 09^0 50' 44.16" to 09^0 50' 49.86"N Longitude (E): 76^0 37' 36.38" to 76^0 37' 44.65"E
14.	e) Topography of land and elevation	Part of the proposed area is an existing quarry and there is no any vegetation. The remaining area for proposed quarry has native trees, climbers, grass, shrubs, herbs etc. The highest elevation of the lease area is 145 m MSL and lowest is 110 m MSL.
15.	f) Slope analysis	As the proposed area is hilly, the slope is towards south-east
16	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	Due care will be taken to provide channel all around the foot of the hill to collect run off and also to avoid soil erosion. There is no danger of flood or inundation as the proposed working is above the normal ground level. The area is not susceptible to floods.
17	h) Access road to the site width and condition	7 m. wide tarred road
18	i) Will there be any adverse impact on the aesthetics of the proposal site	The land used will be fully reclaimed and rehabilitated by backfilling the pits and plantation. Plantation and afforestation will add to the improvement in environment and aesthetic beauty of the area.
	Mining details	
19	a) Minimum and Maximum height of excavation.	Minimum – 105 m MSL Maximum – 145 m. MSL
20	b) Life of mine proposed.	About 20 Years
21	c) Underground mining if any proposed	Not applicable
22	d) Method of Mining	The mining will be done by open cast semi-mechanized method of mining.
23	e) Distance from the adjacent quarry	There is no quarry in operation within 500 m. of the proposed quarry.
24	f) Cluster condition if any	Nil
25	g) Has "No cluster certificate" submitted?	Cluster certificate submitted along with the application.

26	h) Distance from nearby habitation	Nearest house - about 100 m. (SE)
27	i) Distance from nearby forest, if applicable	None within the study area
28	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	None within the study area
29	k) Distance from nearby streams/rivers/National Highway and Roads	Seasonal rain water channel – within 500 m. Poovakulam Pond – about 600 m. W Kotthattukulam M.C. Road – about 6 km., NW
30	l) Is ESA applicable? If so distance from ESA limit	Not falling in ESA
31	m) Has approved mining plan, prepared by RQP submitted?	Yes, submitted along with the application
32	n) Capacity of production in TPA	60,000 TPA
33	o) Details of mining process	The applied area is having building stone throughout the area. As per detailed estimation the geological reserves is about 17,08,918 MT. After deducting the minerals locked in mines safety slope of 5,30,088 MT, the mineable reserves arrived to be 11,78,830 MT. The annual production is estimated to be 60,000 MTA. At the end of life of mine, the ultimate floor (bottom) level will reach 105m MSL. Under reclamation it is anticipated to undertake plantation in the applied area.
	Details of Project cost	
34	a) Land cost	About Rs. 2.62 Crores (included land, plant & machinery)
35	b) Plant and Machinery	About Rs. 2.62 Crores (included land, plant & machinery)
36	c) Total Cost	About Rs. 2.62 Crores (included land, plant & machinery)
37	**V.** Financial Statement including funding source and details of insurance etc.	Funding = Own source & bank loan Insurance = Insurance to the quarry workers would provide through insurance company.
38	Management Plan	Air Pollution: Mining activities will generate certain quantities of dust during drilling, blasting, loading and transportation operations. The following measures will be taken

			to mitigate the fugitive dust from different operations. • Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust. • To avoid the dust generation from the drilling operations, wet drilling method will be adopted. • Drill machines will be equipped with dust collectors. • Use of appropriate explosives for blasting and avoiding overcharging of blast holes. • Controlled blasting techniques will be adopted. • Watering of haul road and other road at regular intervals. • Provision of dust filters/ mask to workers working at highly dust prone and affected areas. • Provision of green belt all along the periphery of the lease area. • Periodical monitoring of ambient air quality in and around the lease area. **The extracted mineral will be transported from the quarry to the end user by adopting following measures so as to minimize dust emissions.** • In case of long transportation the trucks after loading will be covered with tarpaulin sheets. • Speed of the vehicles will be maintained within the prescribed limits. Trucks will not be over loaded and will be maintained to the body level. The following measures are being taken to control the dust emissions:- ➢ The unit is based on latest green technology and the entire unit is

		closed loop with proper control strategies ➢ The unit is well equipped with dust extraction system like bag filters at all traverse points to control the dust emissions. ➢ Closed conveyor system with water sprinkling arrangements are adopted in this unit ➢ Sufficient water is used to maintain the moisture content to control the fugitive emissions throughout the system
	Water Pollution	Provision of storm water collection pond with an appropriate capacity. The water requirement for sprinkling on sources of dust emission, on roads, landscaping etc. Can be met from the stored rainwater in the pond.
	Noise	The major noise generating source from the proposed activity is working machinery, drilling, blasting and plying of vehicles. The following control measures are to be undertaken to bring down the noise levels:- • Proper maintenance of machinery, equipments and improvement on design of machines. • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. • Creation of wide green belt of dense foliage between mine areas and human habitation. • Proper training to personnel to create awareness about adverse noise level effects. Planned noise monitoring at suitable locations in the plant and outside location for proper effective remedial actions.
	Solid Waste Management	**Topsoil Management** A total quantity of about 5,239 cu. m. of topsoil is proposed to be

			removed during the mining operations. The topsoil excavated from the quarry will be dumped / stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. Precautions will be taken to limit the height of the topsoil dump / stacked to 5 to 5 meters in order to preserve its fertility and shelf life. It will be suitably protected from soil erosion and infertility by planting fodder grass and leguminous plants during temporary storage. **Overburden Management** About 3,572 cu. m of overburden (OB) will be generated throughout the mine life. This waste will be utilized within the pit for lying of haul roads. At the end use, OB can be reutilized as soil base for plantation.
		Eco-restoration	The year wise programme of eco-restoration for the life of mine will be made and about 2,300 trees will be planted.
39	**VI.** Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes	
40	**VII.** Does it suggest mitigation measures for each activity	Yes	
41	**VIII.** If Pre-Feasibility Report (PFR) satisfactory	Detailed Pre-Feasibility Report (PFR) is already submitted with E.C. Application at Page No. 105-171	
41	**IX.** Does it need public hearing	Not applicable	
42	**X.** Details of litigation and Court verdict if any	No	
43	**XI.** Details of public complaint, if any	Nil	
44	**XII.** Details of	a. Environment Clearance from SEIAA	

	statutory sanction required	b. Consents from KSPCB c. Approval from Explosive Department d. Approval from Mining & Geology Department etc.
45	**XIII.** If CRZ recommendation applicable?	Not applicable
PART B **Environment Impact Assessment and Mitigation Measures**		
Impact on water		
46	a) Details of water requirement per day in KLD	About 15 KLD
47	b) Water source/sources.	The total water requirement is about 15 KLD in which 1 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine & in Ancillary Unit and 2 KLD for plantation purposes and will be sourced from storm water pond.
48	c) Expected water use per day in KLD.	About 15 KLD
49	d) Details of water requirements met from water harvesting.	About 14 KLD
50	e) What are the impact of the proposal on the ground water?	No. The mines working have been proposed quite above the ground water table
51	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	No
52	g) What is the incremental pollution load from waste water generated from the proposed activities?	The sewage to a tune of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit.
53	h) How is the storm water from within the site managed?	➢ Storm water drains with silt traps will be suitably constructed all along the periphery of the pit area to collect the run-off from the lease area and divert into the storm water pond/tanks proposed within the complex. ➢ All measures will be taken not to disturb the existing drainage pattern adjacent to the other property. ➢ De-siltation traps and storm water collection pond proposed for silt removal. ➢ The storm water collected from the lease

		area will be utilized for dust suppression on haul roads, plantation within the premises etc.
Impact on Biodiversity and Eco restoration Programmes		
54	a) Will the project involve extensive clearing or modification of vegetation (Provide details)	Part of the proposed area is an existing quarry and this area is devoid of any vegetation. The remaining area for proposed quarry has native trees, climbers, grass, shrubs, herbs etc.
55	b) What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	The year wise programme of eco-restoration for the life of mine will be made and about 2,300 trees will be planted. Ecological restoration for the mined area by plantation of the species as per the time schedule suggested below: - First Six months -- Herbs & grass Next Six months -- Shrubs Next Six months onwards -- Trees Selection of species is based on High Dust Capturing, Soil Holding Capacity, ground water recharge capacity etc. More focus is given for medicinal plants.
56	c) Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? d) Presence of any endangered species or red listed category (in detail)	No No endangered species found at site.
Impact on Air Environment		
57	a) What are the mitigation measures on generation of dust, smoke and air quality	Details already provided at EMP section at Sr. No. 38 above.
58	b) Details of internal traffic management of the site.	Designated space will be provided for parking of truck/tipper within the site. For the purposes of mining activities, existing roads are sufficient. However, haul road will be suitably developed within the proposed area.
59	c) Details of noise from traffic, machines and vibrator and mitigation measures	Details already provided at EMP section at Sr. No. 38 above.
60	d) Impact of DG sets and other equipments on noise and vibration and ambient air quality	Details already provided at EMP section at Sr. No. 38 above.

	around the project site and mitigation measures	
61	e) Air quality monitoring in detail	Details already provided at EMP section at Sr. No. 38 above.
	Energy Conservation	
62	a) Details of power requirement and source of supply.	The total power requirement will be 75 kW for compressors which will be operated by Diesel Engine.
63	b) Details of renewable energy (non – conventional) used.	We will promoted renewable energy resources.
	Risk Management	
64	1) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	Detailed Environment Management Plan is already submitted with E.C. Application at Page No. 71-81.
65	2) Are proposals for fencing around the quarry satisfactory? 3) Storage of explosives/hazardous substance in detail 4) Facility for solid waste management	Barbed wire fencing will be done all around the quarry site. Detailed Environment Management Plan is already submitted with E.C. Application at Page No. 71-81. Topsoil and over burden will be removed during the mining operations. The topsoil excavated from the quarry will be dumped separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation. OB will be utilized for laying internal haul road and will form base in reclamation / plantation. The municipal solid waste will be suitable disposed.
	Socio Economic Impacts	
66	a) Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?	No.
67	b) Will the proposal result in any changes to the demographic	The proposed project will directly / indirectly develop the area by providing employment opportunities. With the proposed development in and around the area there will be many supporting facilities/ infrastructure

	structure of local population. If so, provide details.	eventually leading to the development of the area.
68	*c)* Are the CSR proposals satisfactory. Give details	*The proponent should spent Rs.6 lakh for recurring activities and 7 lakh for non-recurring activities in consultation with local panchayat for the welfare of the local community towards CSR activities.*
69	d) What are the projects benefits in terms of employment potential?	Due to the mining activity and due to the attached ancillary unit, there will be workers attracted to the project area. It is proposed to employ 25 persons in the project.
	PART C	
70	Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	M/s Environmental Engineers & Consultants Pvt. Ltd. (NABET Accredited Consultant Organization) Head Office :- A1-198, Janak Puri, New Delhi. Branch Office:- C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.
	Summary and Conclusion	
71	a) Overall justification for implementation of the project.	It is predicted that socio-economic impact due to this project will positively increase the chance of more employment opportunities for local inhabitants. There are no Resettlement and Rehabilitation issues involved in this project. The project infrastructures will be of use to people of the area. The revenue of the State Govt. will be definitely increasing due to the proposed activity. The entire project area is devoid of any endangered flora and fauna. It is proposed to reclaim the land and develop green cover for eco-restoration with native species to a maximum possible extent. Additionally, an area is earmarked outside the proposed mining area for compensatory mass plantation. Also, a storm water pond is proposed outside the mining area for storage of rain water and for its subsequent use so as to conserve fresh water consumption. Thus the proposed project is not likely to affect the environment or adjacent ecosystem adversely.
72	b) Explanation of how adverse impact have been mitigated.	Detailed Pre-Feasibility Report (PFR) with Environment Management Plan (EMP) is already submitted with E.C. Application at Page No. 67-81.

The proponent has submitted the Mining Plan as per Kerala Miner Mineral Concession Rule, 2015 on 21/01/2016.

2. The proposal was placed in the 64th meeting of SEAC, Kerala, held on 16th& 17th November, 2016. The Committee appraised the proposal based on the Mining Plan, Pre-feasibility Report and all other documents submitted along with Fom.1.

The quarry unit is not working for the last 3 years due to the expiry of lease. The crusher unit associated with the quarry is working, by taking raw material from other quarries. The proposed area is a patta land. The life of mine proposed is 20 years. The committee is of the opinion that the CSR is to be modified for an amount of 6 lakh for recurring activities and 7 lakh as non-recurring activities. The committee decided to defer the item for field inspection.

Accordingly, the Subcommittee of SEAC conducted the field visit and field visit report is given below.

Field visit to the Quarry project site of **M/s Kappan Granites, Veliyannoor village, Kottayam district**, was carried out on 03.12.2016 by the sub-committee of SEAC, Kerala, comprising Dr.Keshav Mohan and Sri. John Mathai. Sri. Jose J. Kappan, Managing Partner with another partner was present at the site at the time of site visit.

The project is located at Poovakulam about 5 km southeast of Koothattukulam. This smaller sized quarry, not in operation for few years and falling in own land occupy the upper slopes of a mount exposing hard rock. Boundary pillars of the plot are erected temporarily and numbered as given in the surface plan. The rock type is mostly foliated Charnockite. In the old worked out area steep faces are seen. Storm water is channelized into a pit on the eastern part that functions as RWH structure, clarified and overflow let out through a defined channel in to the valley on the south that is owned by the proponent. Fencing is seen along the upper northern boundary but not in the southern part. St Marys church at Poovakulam is 200 m away. Dwelling units, other than the proponents house, are beyond 100 m from quarry. The quarry has a crusher unit. Floral and faunal biodiversity is not observed as the area is mostly rocky and quarried. Based on an overall evaluation of the site, issuance of EC can be recommended subject to the following:

- *All the boundary pillars are to be fixed permanently on the ground and their respective coordinates to be marked on them*
- *Fencing to be completed around the lease area.*
- *A pond like structure to be given in the valley portion on the south to receive the overflow from the quarry pit.*
- *Commitment of CSR to be verified.*

3. The proposal was considered in the 67th Meeting of SEAC held on 27/01/2017. The Committee appraised the proposal based on Form I, Pre-feasibility Report, Mining Plan, field inspection report of the Sub Committee and all other documents submitted with the proposal. The Committee decided to Recommend for issuance of EC subject to general conditions in addition to the following specific conditions for mining.

1. *All the boundary pillars are to be fixed permanently on the ground and their respective coordinates to be marked on them.*
2. *Fencing to be completed around the lease area.*
3. *A pond like structure to be given in the valley portion on the south to receive the overflow from the quarry pit.*

4. *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.*
5. *The CSR is to be modified for an amount of Rs.6 lakh for recurring activities and 7 lakh for non-recurring activities.*

4. **The proposal was considered by the Authority in its 65th meeting held on 22.03.2017. The Authority decided to grant EC subject to the strict implementation of the above specific conditions in addition to the general conditions. It is also directed that the proponent's dwelling unit should be demolished if it is within 100m from the quarry. EC shall be issued only after submitting an affidavit that the dwelling unit has been demolished and all the premining conditions have been implemented.**

5. The proponent has submitted an affidavit vide reference 5th cited, satisfying all the above conditions. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed building stone quarry project in Sy. No. 126/2/1, 119/1/1, 119/1, 119/1/2, 120/4, 120/2, 120/5pt., at Veliyannoor Village, Veliyannoor Panchayat, Meenachil Taluk, Kottayam District, Kerala by Sri Jose J. Kappan Managing Partner M/s Kappan Granites, Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via., Kottayam District Kerala - 686662 for an area of 2.3815 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, Kottayam 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 Jose J. Kappan Managing Partner M/s Kappan Granites, Kappil House, Poovakkulam, Karamala P.O., Koothattukulam via., Kottayam District Kerala-686662.

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

To,

Sri Jose J. Kappan Managing Partner
M/s Kappan Granites, Kappil House,
Poovakkulam, Karamala P.O.,
Koothattukulam via.,
Kottayam District Kerala-686662

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, Kottayam
6. The District Geologist, Kottayam
7. Secretary, Veliyannoor Grama Panchayat, Veliyannoor P.O, Meenachil, Kottayam – 686 521
8. Chairman, SEIAA.
9. Website.
10. S/f
11. O/c

Forwarded/By Order

Administrator, SEIAA

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

GENERAL CONDITIONS (for mining projects)

1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly, if no other specific condition on reclamation of pit is stipulated in the E.C.
8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
9. The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.
10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/ control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m
20. No mining operations should be carried out at places having a slope greater than 45°.
21. Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
29. 100 m buffer distance should be maintained from forest boundaries.

30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.

31. All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.

32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponentshall apply and get the approval of this Authority.

33. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.

36. A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

37. The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.

38. The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public

39. The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.

40. No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.

41. The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.

42. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.

43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45^0. 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 PM_{10} 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.

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