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Validity expires on 15.08.2023



Proceedings of the District Environment Impact Assessment Authority Kozhikode

Present : Sri U.V. Jose. IAS, District collector & Chairman DEIAA,
Smt Vigneshwari. V.IAS, Sub Collector and Member Secretary DEIAA,
Sri Sunil Kumar DFO & Member

Sub : DEIAA-Environmental clearance for the quarry project in re survey No. 68, 71/1 and 71/2 of Mundakkara Desom, Kinaloor Village, Thamarassery Taluk, Kozhikode District, Kerala by Sri K Manoj Kumar, Kizhakkedath House, Moorikkara P.O., Kozhikode, Kerala - E C Granted- Orders issued.

District Environment Impact Assessment Authority, Kozhikode

No. 105/DEIAA /KL/MIN/14714/2018

Dated, Kozhikode: 16.08.2018.

- Ref :**
1. Application dated 23/04/2018 Sri. K Manoj Kumar, Kizhakkedath House, Moorikkara P.O., Kozhikode, Kerala
 2. Minutes of the 15th meeting of DEAC held on 27/04/2018
 3. Minutes of the 16th meeting of DEAC held on 22/05/2018
 4. Minutes of the 9th meeting of DEIAA held on 20/07/2018

ENVIRONMENTAL CLEARANCE NO. 105/2018

Sri. K Manoj Kumar, Kizhakkedath House, Moorikkara P.O., Kozhikode, Kerala, Kerala, vide his application received 23/04/2018, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in re survey No. 68, 71/1 and 71/2 of Mundakkara Desom, Kinaloor Village, Thamarassery Taluk, Kozhikode District, Kerala for an area of 1.0261 hectares. The project comes under Category B2, Activity 1(1), (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-11(M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dated 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 5 hectares.

The proposed project site falls within Latitude 11°27'13.43" N to 11°27'10.37" N and Longitude 75°51'25.61"E to 75°51'25.74"E. The land use classification as per revenue records is own land. The lease area consists of 1.0261 hectares. The current proposal is for the new building stone quarry project. The proposed project is of 12,640 MTA of building stone. The other details are as follows:

I. Project details		
1.	File No.	DEIAA /KL/MIN/14714/2018
2.	Name /Title of the project	Building Stone Quarry of Mr. Manoj Kumar .K
3.	Name and address of project proponent.	Mr. Manoj Kumar.K Kizhakkedath, N.V Road, Morikkara (P.O),Kakkodi, Kozhikode-673611
4.	Owners of the land	Own Land
5.	Survey No. District/Taluk/ and Village etc.	Re.survey No: 68,71/1,71/2, Mundakkara Desom Kinaloor Village, Thamarassery Taluk, Kozhikode District, Kerala State.
6.	Details of period of lease or permit with number including the beginning and expiry date of lease/permit period (Copy to be attached)	Quarry Lease
7.	Present Status of the project a. whether the quarry is working at present or not ? b. If stopped working since when?	Not Applicable
8.	Date of submission of Application	23/04/2018
9.	Brief description of the project.	The proposed building stone quarry project is situated at Re-sy. No. 68, 71/1, 71/2 in Kinaloor Village, Thamarassery Taluk, Kozhikode District, Kerala State. The Proposed lease and present land use is quarrying activities. It is a mining project for excavation of building stone. The targeted annual production of stone will be 12640MT.
10.	Details of Authorized Signatory and address for correspondence	Mr. Manoj Kumar.K Kizhakkedath, N.V Road, Morikkara (P.O),Kakkodi, Kozhikode-673611
II. Land Details		
11.	a) Extent of area in hectares	1.0261 Ha
12.	b) Is the property forest land/Govt. land/own land/patta land	Private owned Land
13.	c) Quantity of top soil/over burden produced and managed	A total quantity of 6719.25 tonne of top soil in the existing quarrying area. About 6319 cu.m of overburden will be generated throughout the mine life.

14.	d) Latitude and Longitude	Latitude (N)	11°27'13.43" N to 11°27'10.37"
		Longitude (E)	75°51'25.61"E to 75°51'25.74"
15.	e) Topography of land and elevation	The topography of the surrounding permit area is an elevated terrain with quarry land covered with native trees, shrubs, herbs, grass, climbers, bushes etc. The highest elevation of the permit area is 155m MSL and lowest is 100m MSL. As the proposed area is hill rock, the drainage of the permit area is towards west direction.	
16.	f) Slope analysis	Considering the stability of rocks the final slope or say Ultimate pit slope is proposed 45° from horizontal.	
17.	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	No	
18.	h) Access road to the site width and condition	The public road leading to the quarry has a width of about 8m.	
19.	i) Will there be any adverse impact on the aesthetics of the proposal site	No	
III. Mining details			
20.	a) Minimum and Maximum height of excavation.	100m MSL & 155m MSL	
21.	b) Life of mine proposed.	10 years	
22.	c) Underground mining if any proposed	No	
23.	d) Method of Mining	open cast semi-mechanized method of mining	
24.	e) Distance from the adjacent quarry	Nil	
25.	f) Cluster condition if any	No	
26.	g) Has "No cluster certificate" submitted?	No	
27.	h) Distance from nearby habitation	105m	
28.	i) Distance from nearby forest, if applicable	Nil	
29.	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	Nil	
30.	k) Distance from nearby streams/rivers/National Highway and Roads	River - 10km, NH -26 km ,SH -2km	
31.	l) Is ESA applicable? If so distance from ESA limit	No	

32.	m) Has approved mining plan, prepared by RQP submitted?	Yes																		
33.	n) Capacity of production	12,640 MT																		
34.	o) Details of mining process	<p>The proposed mining operations will be carried out by open cast semi-mechanized method. The height and width the bench will be maintained at 5 m respectively. The mining will be done from top to bottom by slicing of 2.5 m thick. Considering the stability of rocks .</p> <p>The final slope or say ultimate pit slope is proposed 45° from horizontal. Haul road will be developed up to point of loading. Transportation of the mineral from pit-mouth to destination will be by tippers/trucks (10T capacity).</p>																		
IV. Details of Project cost																				
35.	a) Land cost	As fixed by the Revenue Department																		
36.	b) Plant and Machinery	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Machine Type</th> <th>Required No. of M/c</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Excavator</td> <td>1(rent)</td> </tr> <tr> <td>2.</td> <td>Rock breaker</td> <td>1(rent)</td> </tr> <tr> <td>3.</td> <td>Tippers/Trucks</td> <td>2</td> </tr> <tr> <td>4.</td> <td>Compressor</td> <td>1(rent)</td> </tr> <tr> <td>5.</td> <td>Excavator</td> <td>1(rent)</td> </tr> </tbody> </table>	S. No.	Machine Type	Required No. of M/c	1.	Excavator	1(rent)	2.	Rock breaker	1(rent)	3.	Tippers/Trucks	2	4.	Compressor	1(rent)	5.	Excavator	1(rent)
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37.	c) Total Cost	35 lakhs																		
38.	V. Financial Statement including funding source and details of insurance etc.	Own fund																		
39.	Management Plan	<table border="1"> <tr> <td>Air Pollution</td> <td>The PM 10 and PM 2.5 will be controlled by Dust Suppression mechanism as specified by KSPCB</td> </tr> <tr> <td>Water Pollution</td> <td>Water quality meeting requirements after the treatment of water (filtration, disinfection & sedimentation).</td> </tr> <tr> <td>Noise</td> <td>Will be under control by KSPCB standards</td> </tr> <tr> <td>Solid Waste Management</td> <td>Will be under control by KSPCB standards</td> </tr> <tr> <td>Eco-restoration</td> <td>0.3372 Ha area embarked for safety barrier shall be used for green belt development by planting 550 local species</td> </tr> </table>	Air Pollution	The PM 10 and PM 2.5 will be controlled by Dust Suppression mechanism as specified by KSPCB	Water Pollution	Water quality meeting requirements after the treatment of water (filtration, disinfection & sedimentation).	Noise	Will be under control by KSPCB standards	Solid Waste Management	Will be under control by KSPCB standards	Eco-restoration	0.3372 Ha area embarked for safety barrier shall be used for green belt development by planting 550 local species								
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40.	VI. Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes
41.	VII. Does it suggest mitigation measures for each activity	Yes
42.	VIII. If Pre-Feasibility Report (PFR) satisfactory	Yes
43.	IX. Does it need public hearing	No
44.	X. Details of litigation and Court verdict if any	Not Applicable
45.	XI. Details of public complaint, if any	Not Applicable
46.	XII. Details of statutory sanction required	Not Applicable
47.	XIII. If CRZ recommendation applicable?	Not Applicable

PART B

Environment Impact Assessment and Mitigation Measures

Impact on water

48.	a) Details of water requirement per day in KLD	The total water requirement is about 6 KLD in which 1 KLD is for domestic uses, 4 KLD for dust suppression and 1 KLD for plantation purposes.
49.	b) Water source/sources.	The water required will be sourced from an open well water and Rain Water..
50.	c) Expected water use per day in KLD.	6 KLD
51.	d) Details of water requirements met from water harvesting.	Sufficient quantity will be maintained from RWH
52.	e) What are the impacts of the proposal on the ground water?	No impacts noticed
53.	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Proper recycling mechanism will be introduced for utilizing the treated waste water.
54.	g) What is the incremental pollution load from waste water generated from the proposed activities?	Not Applicable in the site
55.	h) How is the storm water from within the site managed?	With sedimentation tanks per the standard norms

Impact on Biodiversity and Eco restoration Programmes		
56.	a) Will the project involve extensive clearing or modification of vegetation (Provide details)	Not applicable
57.	b) What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	Planting of indigenous trees will be conducted as mitigative measures. the details are specified in the Mining closure plan
58.	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)	Not Applicable
Impact on Air Environment		
59.	a) What are the mitigation measures on generation of dust, smoke and air quality	Appropriate dust suppression mechanism including sprinklers will be introduced for the mitigative measure.
60.	b) Details of internal traffic management of the site.	Traffic will be managed without generating air pollution.
61.	c) Details of noise from traffic, machines and vibrator and mitigation measures	Noise will not be the problem as the mining has been proposed by semi- mechanized open cast method.
62.	d) Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	This will be as specified by the CPCB standards
63.	e) Air quality monitoring in detail	Particulate Matter (PM ¹⁰)- 43.6 µg/M ³ Particulate Matter (PM ^{2.5})- 19.7 µg/M ³ Sulphur dioxide (SO ₂) - <2.00µg/M ³ Nitrogen dioxide (NO ₂) - <2.00µg/M ³
Energy Conservation		
64.	a) Details of power requirement and source of supply.	No power is required for quarry operations.
65.	b) Details of renewable energy (non – conventional) used.	Not Applicable
Risk Management		
66.	a) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?	No disaster is expected in this small scale of quarrying; however as an emergency the assistance of the hospital, police station and fire brigade will be arranged I war-foot level

67.	<p>b) Are proposals for fencing around the quarry satisfactory?</p> <p>c) Storage of explosives/hazardous substance in detail</p> <p>d) Facility for solid waste management</p>	Yes, Explosives used is ANFO which will be kept in magazines under the stipulated conditions and standards depicted by the DGMS.
Socio Economic Impacts		
68.	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
69.	b) Will the proposal result in any changes to the demographic structure of local population. If so, provide details.	No
70.	c) Are the CSR proposals satisfactory. Give details	Yes , Total CSR proposal is for Rs. 1,70,000 . Recurring- Rs, 1,20,000 and Non-Recurring- Rs.50,000.
71.	d) What are the projects benefits in terms of employment potential?	The main occupation of the people is farming. There are no major industries in the area. The quarrying operation in such remote places would provide direct & indirect employment to local people. Hence quarrying operation will help in improving socio-economic status of the area.
PART C		
72.	Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details	NAZAR AHAMED K.V DMG/KERALA/RQP/7/2016 N Square Mining and Environmental Solutions. Xaitoon Plaza, Edappal Malappuram-679576.
Summary and Conclusion		
73.	a) Overall justification for implementation of the project.	The project infrastructures can be utilized for the benefit of the local people of the area. The revenue of the State Govt. will be definitely increasing due to the proposed activity by means of CRP as well as the processing fee for appropriate statutory clearances involved in the procedures. The entire project area is devoid of any endangered flora and fauna as specified in the IUCN records and the area is totally far from any other protected areas under the Wildlife Protection Act as well as the Forest Act. It is proposed to reclaim the land and develop green cover for eco-restoration with native species to a maximum extent as far as possible.

74.	b) Explanation of how adverse impacts have been mitigated.	<ul style="list-style-type: none"> a. The pit shall be fenced. b. Proper and adequate security at the entrance to the mine to prevent entry of unauthorized person with proper gates under lock. c. All the above will be examined by manager once in a week to ensure that they are in order.
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2. The proposal was considered in the 15th meeting of DEAC held on 27.04.2018. The minutes of the said meeting are as follows; Further to the intimation of DEAC, the proponent along with the RQP was present in the meeting and RQP made a power point presentation of the salient features of the project. The committee appraised the proposal based on the mining plan, pre-feasibility report and all other documents submitted along with the Form IM application and decided to defer the item for site visit.

Field visit to the quarry project site of Sri K Manoj Kumar, Kizhakkedath House, Moorikkara P.O., Kozhikode, Kerala in re survey No. 68, 71/1 and 71/2 of Mundakkara Desom, Kinaloor Village, Thamarassery Taluk, Kozhikode District, Kerala was carried out on 11.05.18 by Sri. T. Mohanan, District Geologist, District Officer PCB, Kozhikode and Sri, Sathyan Meppayur, Nominated Member & Asst. Conservator of Forests, Kozhikode. The proponent was present at the site at the time of site visit.

The project is located at about 700m NE of Vattoli Bazar. This quarrying permit area form part of a hillock exposing hard rock. The approach road is tarred. Boundary pillars of this plot are erected and numbered. In the area proposed for quarry is an elevated ridge with overall slope to NW. This is an uncultivated land that exposes hard rock with few patches of OB and top soil of variable thickness.

The quarry has been recommended for EC after considering the following points:-

1. *The entire area proposed for quarry should be fenced all around.*
 2. *The limited top soil and OB need proper storage area on the lower part and provided with protective walls.*
 3. *The approach road needs widening and surfacing*
 4. *The limited patch of natural vegetation seen adjacent to the proposed lease area should be preserved as such.*
 5. *The entire quarry should be provided with catch water drain all around. The storm water from the upper slopes to be channelized into the drain and clarified before it is let out.*
 6. *The required quantity of water for the project shall be collected by rain water harvesting*
 7. *A RWH structure should be created for the storage of rain water.*
 8. *Details of CSR to be provided as promised in the DEAC meeting.*
3. The proposal along with field visit report was again placed in the 16th DEAC meeting held on 22nd June 2018. The Committee after examining the mining plan, prefeasibility report, field inspection report by subcommittee and all other documents submitted, decided to recommend for issuance of EC subject to general conditions along with the following specific conditions.

1. Should be fenced all around.

2. The limited patch of natural vegetation seen adjacent to the proposed lease area should be preserved as such.
3. The entire quarry should be provided with catch water drain. The storm water from the upper slopes to be channelized into the drain and clarified before it is let out.
4. A RWH structure should be created for the storage of rain water.
5. The proponent agreed to set apart Rs. 1, 20,000 /- (recurring) and Rs. 50,000 /- (non-recurring) for the welfare of the local community. The proponent also agreed to spend this amount in consultation with the local Panchayath.
6. The proposal was considered by the Authority in its 9th meeting held on 20.07.2018

The authority resolved to issue Environmental Clearance on condition that quarrying should be started only after fulfilling the pre mining specific conditions No.1 to 4

4. 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 conditions and the undertakings subject to all the mining features, Environmental Management Plans as undertaken in the Mining Plan and EMP submitted to DEIAA will be deemed to be part of this proceedings as conditions as undertaken by the proponent as if incorporated herein.
 5. Validity of the Environmental Clearance will be five years from the date of this clearance, subject to inspection by DEIAA 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 the public.
 6. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorized offices and also by the regional office of the Ministry of Environment & Forests.
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.
- i. Instances of violation if any shall be reported to the District Collector, Kozhikode to take Legal action under the environment (Protection) Act 1986.
 - ii. The given address for correspondence with the authorised signatory of the project is Sri. . K Manoj Kumar, Kizhakkedath House, Moorikkara P.O., Kozhikode

To

Sri. . K Manoj Kumar,
Kizhakkedath House,
Moorikkara P.O.,
Kozhikode.


District Collector and Chairman (DEIAA)
Kozhikode

District Collector
Kozhikode
1/2



**DISTRICT ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KOZHIKODE,
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 F.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 4 ft 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 contains 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 6m and width should not be less than 5m if there is no mention in 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 45⁰
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 proponent 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 District Environment Impact Assessment Authority (DEIAA) office Kozhikode and may also be seen on the website of the Authority at www.environmentclearance.nic.in 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 Gramapanchayat/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 State Environment Impact Assessment Authority (SEIAA) office and also to the District Environment Impact Assessment Authority (DEIAA) 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 DEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the DEIAA, 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 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 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 de silted 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 activities should be kept in separate account and should not be diverted for other purposes. Year wise expenditure should be reported to the District Environment Impact Assessment Authority Kozhikode (DEIAA) office.
50. The Regional Office of SEIAA & 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
53. The SEIAA may revoke or suspend the order, for non-implementation
54. of any of the specific conditions or the implementation of any of the above conditions is not satisfactory. The DEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
55. 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.
56. This order is valid for a period of 5 years or the expiry date of quarrying lease period issued by the Government of Kerala, whichever is earlier.
57. 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.
58. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
59. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution testing centre. Washing of all vehicles shall be inside the lease area.
60. 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
61. 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 DEIAA.
62. Occupational health surveillance programme of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
63. The environmental clearance liable to be cancelled if the said land is found in porambokku, surplus land, etc



Chairman, DEIAA Kozhikode

**District Collector
Kozhikode**

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Copy to

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Additional Chief Secretary to government, Environment Department, Government of Kerala.
3. Director, Mining & Geology, Thiruvananthapuram-4
5. District Geologist, Mining & Geology, Kozhikode
6. Secretary, Panangad Grama Panchayath
7. S/F