

Proceedings of the District Environment Impact Assessment Authority (DEIAA), Ernakulam  
(Present. Sri. Muhammed Y Safirulla. IAS, District Collector & Chairman DEIAA, Sri. Inbasekar K. IAS,  
Member Secretary, DEIAA & Sub Collector, FortKochi, Sri. A. Renjan I.F.S, DFO Malayattoor &  
Member DEIAA, Dr. P.S. Easa, Member National board for Wildlife & Member DEIAA.)

Environmental Clearance No. 02 /2018  
Building Stone Quarry (36)

No. P/6056/2017  
DIA/KL/MIN/8130/2017

Ernakulam.  
Dated. 23 /01/2018

Sub: - DEIAA Ernakulam – meeting held on 03/01/2018 – Environmental clearance for excavation of Granite Building Stone – Orders issued

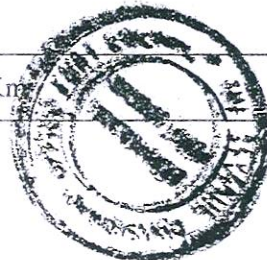
- Ref: - 1. Minutes of the meeting of 15<sup>th</sup> DEIAA held on 03/01/2018 at Chamber of District Collector, Ernakulam  
2. Minutes of the meeting of 13<sup>th</sup> DEAC held on 30/08/2017.  
3. Minutes of the meeting of 14<sup>th</sup> DEAC held on 28/09/2017.  
4. Application filed by Mr. P J Jose , Pothanikattu House, Nadukani P.O, Malayinkeezhu, Kothamangalam, Ernakulam District, Kerala.

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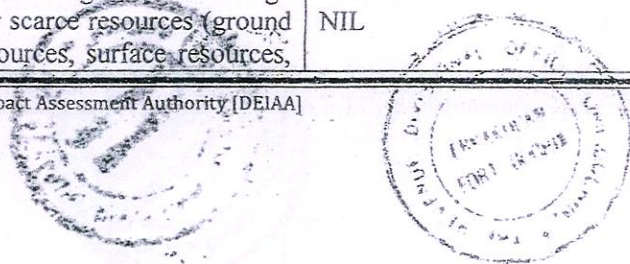
Mr. P J Jose , Pothanikattu House, Nadukani P.O, Malayinkeezhu, Kothamangalam, Ernakulam District, Kerala filed an application for an Environment Clearance for Mining of Granite Building Stone from the Survey Nos. 492/4/1, 574/1A/9/9 in Pindimana Village, Kothamangalam Taluk. The total area of land is 0.9990 hectares and the capacity of the Mining lease (TPA) is 18,277 TPA.

**THE DETAILS AS MENTIONED IN FORM 1M(APPENDIX VIII) OF THE APPLICATION.**

1	Proposal No.	DIA/KL/MIN/8130/2017		
2	Name of Mining Lease Site	Granite Building Stone Quarry of Mr. P J Jose		
3	Location / site (GPS Co-ordinates)	B.P.No	Latitude	Longitude
		01	N: 10°7'47.35"	E: 76°38'40.01"
		02	N: 10°7'48.69"	E: 76°38'42.10"
		03	N: 10°7'48.85"	E: 76°38'42.66"
		04	N: 10°7'49.24"	E: 76°38'42.67"
		05	N: 10°7'50.80"	E: 76°38'40.61"
		06	N: 10°7'47.20"	E: 76°38'37.80"
		07	N: 10°7'45.94"	E: 76°38'36.75"
08	N: 10°7'45.97"	E: 76°38'38.61"		
4	Size of the Mining Lease	0.9990 Hectares		
5	Capacity of Mining Lease (TPA)	18,277 TPA		
6	Period of Mining Period	2 Years		
7	Expected cost of the Project	Rs. 1.5 Crores		
Environmental Sensitivity				
8	Distance of Project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc	Periyar River ,2 Kms		
	Distance from Infrastructural facilities	Kothamangalam ,11 Km		



	Nearest Airport	Kochi International Airport, 35 Km	
	National Highway	NH-49, 8 Km	
	Major District Road	Aluva- Munnar Road, 11 Km	
	Any Other road	Chelad- Malippara- Vettampara- Kottickal Road, 280 m	
	Electric transmission line pole or tower	High Tension Power Line, 145 m	
	Canal or Check dam or reservoirs or lake or ponds	Dam- Bhoothathankettu, 2 Km	
	In-take for drinking water pump house	Open Well, 100 m	
	Intake for Irrigation canal pumps	Bhoothathankettu, 2 Km	
10	Areas protected under international conventions national or local legislation for their ecological landscape, cultural or other related value	None within Study area	
11	Area which are important or sensitive for ecological reasons – Wetlands water courses or other water bodies, coastal zone, biospheres, mountains forests	Periyar River, 2 Km	
12	Areas used by protected important or sensitive species of flora or fauna flora breeding, nesting foraging resting over wintering migration	None within Study area	
13	Inland, Coastal, Marine or underground waters	None within Study area	
14	State, National boundaries	None within Study area	
15	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	None within Study area	
16	Defence Installations	None within Study area	
17	Densely populated or built-up area, distance from nearest human habitation	Kothamangalam, 11 Km	
18	Areas occupied by sensitive man-made land uses (hospitals, schools, places or worship, community facilities)	Hospital:-	1. Dharmagiri Hospital, Kothamangalam, 11 Km 2. Mar Beselious Medical Mission Hospital , 11 Km 3. Govt. Hospital Kothamangalam, 12 Km
		School &	1. L P School, Malippara, 1 Km 2. St.Stephens HSS Boys School, Oonjappara, 3.5 Km.
		Church	1. St.Mary's Church, Malippara, 1 Km
		Temple	1. Bhoothathankettu, 2 Km
		Mosque	1. Kolangattukuzhy, 1.5 Km
19	Areas containing important high quality or scarce resources (ground water resources, surface resources,	NIL	



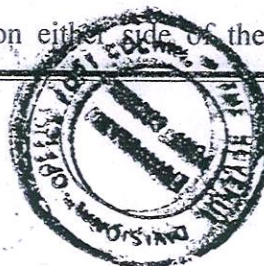
	forestry, agriculture, fisheries, tourism, minerals	
20	Area already subjected to pollution or environmental damage (those where existing legal environmental standards are exceeded)	Quarrying for building stone is being conducted since many years.
21	Area already subjected to natural hazard which could cause the project to present environmental problems	Earth quake Zone-III, Moderate damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS :1893-2002
22	Is proposed mining site located over or near fissure / fracture for ground water recharge	No
23	Whether the proposal involves approval or clearance under the following regulations or acts, namely (a) The Forest (Conservation) Act, 1980 (b) The Wildlife (Protection) Act, 1972 (c) The Coastal Regulation Zone Notification, 2011 If yes, details of the same and their status to be given	Not Applicable
24	Forest land involved (hectares)	Nil
25	Whether there is any litigation pending against the project and /or land in which the project is propose to be set up (a) Name of the court (b) Case No. (c) Orders or direction of the court, if any and its relevance with the proposed project.	As per FORM 1M applicant says that no litigation is pending against the Permit area/applicant of this area in any court of law to the best of knowledge.

**TECHNICAL SCRUTINY AND ENVIRONMENTAL IMPACT ASSESSMENT BY DEAC**

The proposal was placed in the 13<sup>th</sup> DEAC meeting held on 30/08/2017. (Reference 2).The committee appraised the proposal and decided to defer the item for field visit by the sub committee concerned. The DEAC sub committee visit to the Quarry project site of Mr. P J Jose, Pindimana Village, Kothamangalam Taluk and submitted the report to DEAC.

**The field inspection details as reported by DEAC (Reference 3).**

The proposed quarry site located between N-10° 7' 48.85" to E-76° 38' 42.66" forming the top summit of low lying hillock that in general, sloping on either side of the area exhibiting maximum



elevation of 120m AMSL and lowest elevation of 87m AMSL. Since the quarry is already under mining, the litho units are very clearly exposed. Central portion of the applied area is water logged and attained an average depth of 15 meters from the general ground surface. The ore body is massive in general, and at some locations, joint sets and other planes of structural weakness are observed. Mineable resource occurs mainly at southern side and the progressive heading is suggested over there. The ore body comprised complex associates of charnockite, quartz, feldspathic gneiss, biotite gneiss. This rock mass underwent repeated episodes of metamorphism resulting continuous sets of moderately spaced joints, vertical lineation, crushed and brecciated structures. (Reference 3).

There are no perennial water courses or streams within the applied area. The rain water passes as minor water courses through natural geographic slope and joins the local water bodies forming dendritic drainage pattern. During inspection the committee members assessed, the probability of environmental impacts cropping up during mining. The potential for natural hazards such as landslides, surface creep, erosion, flooding or any adverse environmental conditions etc. are also ruled out. The proposed site did not possess any high quality or valuable resources other than granite building stone. They also observed that the area is not under any legal environmental procedures. (Reference 3).

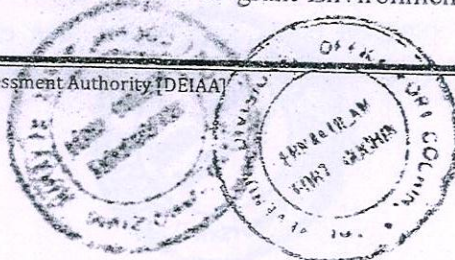
Since the quarry being in existence for more than 10 years the major share of the presently wide quarry is not having systematic bench cuttings. The committee opined that the eco friendly approved mine plan presented by the owner of the quarry is appreciative to incorporate the scientific and modern methods of mining. The ground water assessment could not be made as there is no open wells in the nearby area. (Reference 3).

Considering all the aspects the DEAC approved the mining project and recommended DEIAA to grant Environmental Clearance.

### DEIAA DECISIONS

As per DEAC recommendation, DEIAA considered the project proposal. The applicant submitted the detailed CSR and the applicant has remitted Rs. 75,000/- (Rupees Seventy five thousand only) as processing fee vide chalan no. KL004919316201718M dt.08/08/2017 of Sub Treasury, Mattancherry. Considering the CSR, the applicant submitted the plan of Rs. 2, 00,000/- (Rupees Two Lakh only) as recurring and non recurring expenses for CSR activities.

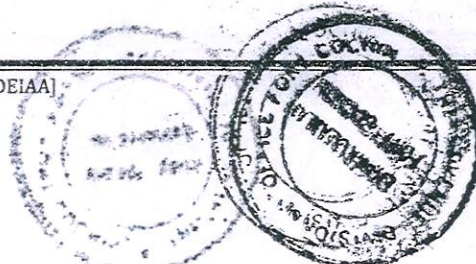
The proposal was considered in the 15<sup>th</sup> meeting of DEIAA (Reference 1). Considering all these aspects the DEIAA committee decided to grant Environmental Clearance to the quarry project of Mr. P J



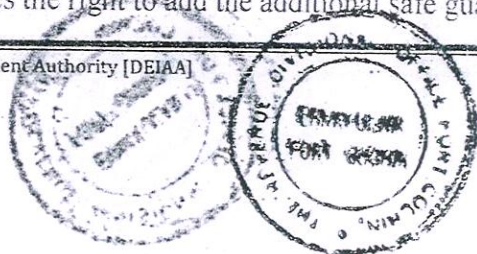
Jose , Pothanikattu House, Nadukani P.O, Malayinkeezhu, Kothamangalam, Ernakulam District, Kerala in strict compliance with the following General conditions and specific conditions recommended by DEAC.

### GENERAL CONDITIONS

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 including 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 should be implemented.
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.

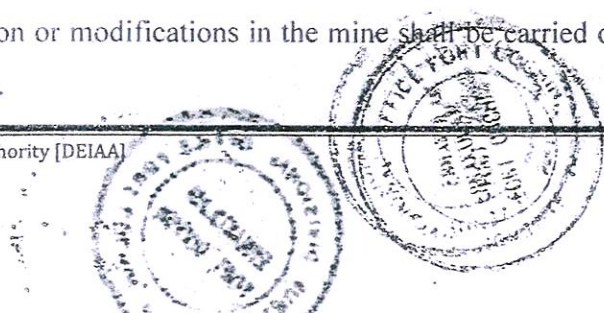


16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan/specific conditions.
17. Height of benches should not exceed 5m, and width should not be less than 5m, if there is no mention in the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10PPV 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 stores in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 50 m from the boundary of the quarry to the nearest dwelling unit or other structures not being any facility for mining shall be provided.
29. 50m buffer distance should be maintained from forest boundaries.
30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should 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 changes in the scope of the project, extent quality, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the EC 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 the additional safe guard 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, 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 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](http://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 the concerned Grama Panchayath/District Panchayath/Municipality /Corporation/Urban Local Body also to the 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/complaints of the stipulated EC conditions including results of monitored data (both in hard copies as well as by email) 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. Each 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 Environment Clearance should be prominently displayed in a metallic board of 3ft x 3ft 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.

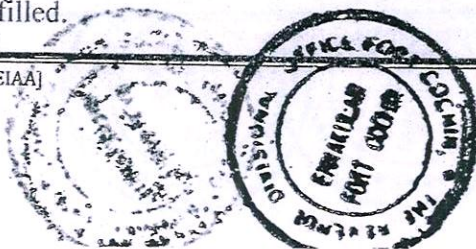


41. The project proponent shall ensure that no natural water course and / or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.
42. Monitoring of Ambient Air Quality 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(s) only. The maximum height of the dumps shall not exceed 8 meter and width 20 meter 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 or 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 desalted 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 PM2.5 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 kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the District Environment Impact Assessment Authority (DEIAA) 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 with 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 DEIAA 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 DEIAA 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 2 years or the expiry 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 interest 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 up stream and down stream 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.
61. 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.
62. Commitment of CSR should be fulfilled.

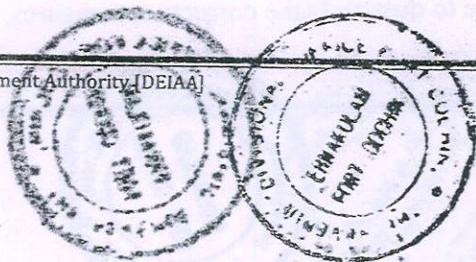


**SPECIFIC CONDITIONS PROPOSED BY DEAC**

1. The applicant should establish a permanent bench mark outside the mining area from which the relative depths of mining should be established and submitted in the calculations as well as in the drawings.
2. The relative levels from the established bench marks should be permanently marked in the boundary points.
3. The solid waste generated during the course of operation shall be utilized for formation of safety Bunds all along 7.5m safety zone, internal road maintenance and green belt works.
4. Sufficient number of suitable parapet walls shall be made all along quarries, haulage roads wherever necessary in order to maintain safe working conditions.
5. Proper blast design avoiding over charging and controlled blasting techniques shall be adopted.
6. Construction of garland drains to divert surface run off away from mining area shall be implemented.
7. Environmental auditing shall be done every year and same shall be reported to District Collector through District Geologist.
8. Quarrying area shall be under water sprinklers for dust control.
9. Ideal locations shall be identified in and around quarry site suitable for rain water harvesting.
10. Implementation of artificial geo-textiles shall be promoted along borders of buffer zone where chances of rock creep may exist during rainy season.
11. Future excavations shall be conducted by strictly forming systematic benches as per the norms of Mine Safety Departments and Kerala Minor Mineral Concession Rules 2015.
12. All quarry workers shall be allowed to enter the blasting area only with personal protective equipments (helmets, safety shoes, reflecting jackets...etc)

Validity of the environmental clearance will be for two years from the date of production of this clearance before the Geologist, subject to earlier review in the event of genuine complaint from anybody from the safety area or violation or non-compliance of any of the conditions stipulated herein.

**MONITORING AND ACTION AGAINST VIOLATION OF GENERAL & SPECIFIC CONDITIONS**



- 1) This environmental clearance is subject to the general and specific condition mentioned in this proceeding. This EC is liable to be cancelled if general and specific conditions are violated and also Penal action will be taken if DEIAA finds any false statement / information in the project proposal.
- 2) Compliance of the conditions here in will be monitored by the Authority or its agencies and also by the regional office of the Ministry of Environment & Forests, Government of India, Bangalore
- 3) 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.
- 4) Instances of violation if any shall be reported to the District Collector, Ernakulam to take legal action under the Environment (Protection) Act, 1986.
- 5) All the inventory records and other documents related to the operations and maintenance of the quarry should be maintained and produced to the monitory authorities whenever needed or directed to produce the same in the future.
- 6) The given address for correspondence with the authorized signatory of the project of Mr. P J Jose , Pothanikattu House, Nadukani P.O, Malayinkeezhu, Kothamangalam, Ernakulam District, Kerala.



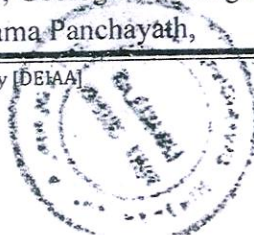
*Jubagat*  
22/11/2018  
Sri. Inbasekar K. IAS  
Member Secretary, DEIAA  
&  
Sub Collector, Fort Kochi

To

Mr. P J Jose , Pothanikattu House,  
Nadukani P.O, Malayinkeezhu, Kothamangalam,  
Ernakulam District, Kerala

Copy to:

1. The Additional Chief Secretary to Government, Environment Dept, Govt. Of Kerala
2. Director, Mining & Geology, Thiruvananthapuram - 4
3. Chairman DEIAA & District Collector, Ernakulam
4. Sri. A. Renjan I.F.S, DFO Malayattoor & Member DEIAA
5. Dr. P.S. Easa, Member, National Board of Wildlife & Member DEIAA
6. Shri. K.N Raman Namboothiri , Geologist, Mining & Geology, Kakkanad, Erna
7. The Secretary, Pindimana Grama Panchayath,



- 8. Tahsildar, Kothamangalam Taluk
- 9. Village Officer, Pindimana Village
- 10. Website
- 11. Stock File

