



Proceedings of the State Environment Impact Assessment Authority Kerala

*Present: Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member and Sri. P. Mara Pandiyan, I.A.S.,
Member Secretary.*

Sub: Environmental Clearance -Application for environmental clearance for the quarry project in Sy. No. 511/6, 511/7, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-3, 510/1-2 at Vengoor West Village, Mudakuzha Panchayath, Kunnathunadu Taluk, Ernakulam District, Kerala by Sri. K. K. Issac, Kolliallil House, Vengola P. O., Meprathupady, Perumbavoor, Ernakulam- E.C- Granted

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 434/SEIAA/KL/2994/2014

dated, Thiruvananthapuram 05-01-2016

- Read:* - 1. Application dated 30.05.2014 from Sri. K. K. Kolliallil House, Vengola P. O., Ernakulam.
2. Minutes of the 43rd meeting of SEAC held on 15-07-2015.
3. Minutes of the 47th meeting of SEAC held on 13/14-10-2015.
4. Minutes of the 45th meeting of SEIAA held on 04-12-2015.

ENVIRONMENTAL CLEARANCE NO. 132/2015

Sri. K. K. Issac, Kolliallil House, Vengola P. O., Meprathupady, Perumbavoor, Ernakulam, Kerala vide his application received on 24.06.2014, sought Environmental Clearance under EIA Notification, 2006 for their building stone quarry in an area of 9.2843 hectares in Sy. Nos. 511/6, 511/7, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-3, 510/1-2 at Vengoor West Village, Mudakuzha Panchayath, Kunnathunadu Taluk, Ernakulam District, Kerala. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares). It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dtd. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

DETAILS OF THE PROJECT

File No.	434/SEIAA/KL/2994/2014
Brief description of the project	Quarry project with an area of 2.8805 ha. & production capacity of 60,000 MTA

<i>Category/Subcategory & Schedule</i>		Category B/B2 & Schedule 1 (a)	
<i>Location Sy. no./ District, Taluk/ Village etc.</i>		Survey Nos. 511/6, 511/7, 510/1-2, 510/2-4, 510/2-2, 510/2-3, 510/1-2, Vengoor West Village, Mudakuzha Panchayat, Kunnathunadu Taluk, Ernakulam District, Kerala.	
<i>GPS co-ordinates</i>		Latitude (N)	10° 10' 30.89" to 10° 10' 24.89"
		Longitude (E)	76° 32' 10.46" to 76° 32' 05.28"
<i>for Mining projects</i>	<i>Extent of area (in hectares)</i>	2.2198 ha.	
	<i>Minimum and maximum height of excavation (MSL)</i>	50 m. MSL and 85 m. MSL	
	<i>Life of mine proposed</i>	8 years	
	<i>Ultimate depth of mining (in MSL)</i>	50 m. MSL	
	<i>Distance from the adjacent quarry</i>	Chooramudi Granites, 2 km., SE	
	<i>Capacity of production</i>	60,000 MTA	
	<i>Details of project cost</i>	Rs.1.105 Crores	
	<i>Financial statement including funding source and details of insurance</i>	Source of fund :- Own source Insurance: - Insurance to the quarry workers provided through the insurance company.	
<i>Does it attract violation proceedings</i>		No	
<i>Env't Mgmt plan/ Eco restoration plan (brief details)</i>		At the end of life of mine, excavated pit will be backfilled and reclaimed & rehabilitated by plantation with native species so as to restore the natural eco-system.	
ABOUT THE PROJECT			
<i>Environmental parameters considered</i>		<i>Description</i>	
WATER			
Water requirement & sources		<p>The total water requirement is about 5 KLD in which 1 KLD is for domestic which would be sourced from open well, 2 KLD for dust suppression system and 2 KLD for plantation purposes and will be sourced from storm water pond.</p> <p>The source of water is from storm water pond / well.</p>	
RWH units proposed		Yes, Rain water collection pond	

Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses.
Water quality meeting requirements	Water quality to meet requirements after the treatment of water (filtration, disinfection & sedimentation).
LAND	
Proximity to forest lands	None within the area
Access road to the site –Width & Condition	7 m. tarred road, NE
Storage of explosives /hazardous substances	Yes, Explosives will be stored as per Explosives Act/Rules.
Facility for solid waste management	The municipal solid waste will be suitably disposed.
Topographic features/ slope	The topography of the lease area is hilly area covered with native trees, climbers, grass, shrubs, herbs etc. Sectional details are :- Section 'A – A' = 15° Highest level = 85 m MSL (SE side) Lowest level = 55 m MSL (NW side)
Proneness of the area for landslides	No
Significant land disturbance resulting in erosion, subsidence & instability	No
Top soil, overburden, etc.	Top soil – 11,099 cu.m. Overburden – 6,659 cu.m.
AIR	
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.
ENERGY	
Energy requirement	The total power requirement will be 75 kW for compressors, which will be drawn from diesel engine.
Energy sources	From diesel engine.

BIODIVERSITY																																			
Presence of any endangered species or red listed category			No																																
Loss of native species and genetic diversity			Yes, For the quarrying activity all of native tree species, shrubs, herbs, climber etc. existing at site will be cleared.																																
Likely displacement of fauna			No																																
Any introduction of alien / invasive species		Yes, Invasive species (shrubs) :- ➤ <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. ➤ <i>Lantana camara</i> L. Invasive species (herbs) :- ➤ <i>Senna tora</i> (L.) Roxb. Invasive species (climbers) :- ➤ <i>Mimosa diplotricha</i> var. <i>diplotricha</i> ➤ <i>Mikania micrantha</i> Kunth																																	
SOCIAL ASPECTS																																			
Proximity to nearest habitation		121 m., NE																																	
CSR related to the project / allocation / time frame (details mandatory)		A detailed study on social status of the project site surroundings & need base study on proposed CSR activities were carried out. The summary of the report are:- <table border="1"> <thead> <tr> <th>S l. N o</th> <th>Areas of Intervention</th> <th>No. of Intervention</th> <th>Recurring Expenses</th> <th>Non Recurring Expenses</th> </tr> <tr> <th colspan="5">(in Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Education</td> <td>05</td> <td>1,80,000</td> <td>2,37,000</td> </tr> <tr> <td>2</td> <td>Health</td> <td>04</td> <td>2,06,000</td> <td>4,00,000</td> </tr> <tr> <td>3</td> <td>Community Development</td> <td>02</td> <td>1,50,000</td> <td>1,05,000</td> </tr> <tr> <td colspan="2">Total</td> <td>11</td> <td>5,36,000</td> <td>7,42,000</td> </tr> </tbody> </table>				S l. N o	Areas of Intervention	No. of Intervention	Recurring Expenses	Non Recurring Expenses	(in Rs.)					1	Education	05	1,80,000	2,37,000	2	Health	04	2,06,000	4,00,000	3	Community Development	02	1,50,000	1,05,000	Total		11	5,36,000	7,42,000
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GENERAL																																			
Does it propose environment management plan			Yes																																
Does it have eco restoration programmes	Yes; The year wise programme of afforestation for the life of mine, about 2,000 trees will be planted. The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species.																																		

Biomedical waste management	Not applicable
E-waste management	Not applicable
Sufficiency of parking spaces/ traffic management	Yes
Litigation/court cases, if any, against the project (Provide details)	Nil
SEAC meetings/ ADDITIONAL CLARIFICATIONS	
Details of Authorized Signatory	Mr. K.K. ISSAC, Authorized Signatory Kollialil House Perumbavoor, Vengola P.O. Ernakulam – 686556. Tel. No. 0484-2526077, 2526577; Mob. No. 09446131077, Email: eldoissaeik@gmail.com
Details of NABET approved EIA consultant organization	M/s Enkay Enviro Services Pvt. Ltd., 24-B, Dadu Marg, Gopal Bari, Ajmer Road, Jaipur, Rajasthan-302001. QCI List at Sr. No. 43 as per NABET list of accredited consultant organizations, Rev. 21A on 19 th Aug., 2014.

2. As per the KMMC Rules 2015, the proponent has submitted the approved Mining Plan. The proposal was placed in 41st meeting of SEAC. The Committee decided to defer the item for site inspection. Based on an overall evaluation of the site carried out on 03.07.2015 by the sub-committee of SEAC, the quarry operation was recommended with following conditions:

1. Bench formation has been adopted recently. Main haulage is from the upper part on the eastern side.
2. Over burden is partly stored in the western side but not in a planned manner. It must be stored in the designated places and provided with protective support.
3. The drainage from the quarry is currently directed to the NW corner and let out

without any clarification/desiltation mechanism. It may be important to provide check dams at two levels in the channel to arrest all fine particles and to clarify water before it is let out. The deposited silt must also be cleaned periodically.

4. RWH pond must be provided at the lowest elevation in the NW corner and can be in conjunction with the desiltation mechanism.
5. Considering the topography, garland drains need not be insisted upon.
6. The approach road to the quarry from the main road is not maintained at all. This road must be maintained in good motorable condition by the proponent. Buffer distance from the road near the quarry may not be required as it ends at the quarry.
7. The blasting time must be displayed and strictly adhered to. The PPV values must be less than 10 mm/sec. Steps to be taken to limit fly rock to the quarry area.
8. Dust suppression mechanism must be in place.
9. In the absence of perennial streams in the vicinity, ultimate depth of mine will depend on the possible benches in the lease area.
10. Vegetation is seen all around the quarry but must be maintained till the entire life of quarry.

3. The 43rd meeting of SEAC held on 15-07-2015 appraised the proposal based on the Mining Plan, Prefeasibility Report, field inspection report and all other documents submitted and decided to grant EC only after the production of certificate from Village Officer, referred in rule 27 2(f) of KMMCR Rules ('certificate from the Village Officer concerned to the effect that the land applied for quarrying lease is not assigned for any special purpose by the department of Land Revenue'). 47th meeting of SEAC held on 13/14 Oct. 2015 has reappraised the proposal based on the field inspection report and all other documents submitted and decided to recommend for issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects.

1. Over burden must be stored in the designated places and provided with protective support.
2. Check dams shall be provided at two levels in the drainage channel to arrest the suspended particles. The deposited silt must also be cleaned periodically.
3. RWH pond must be provided at the lowest elevation in the NW corner and can be in conjunction with the desiltation mechanism.
4. The approach road to the quarry from the main road must be maintained in good motorable condition by the proponent. Buffer distance from the road near the quarry

may not be required as it ends at the quarry.

5. Dust suppression mechanism must be in place.
6. Reclamation and eco-restoration should be done by planting native species.
7. To the extent possible local biodiversity management committee should be involved in the environmental management/restoration activities.

4. The case was considered by SEIAA in its 45th meeting held on 04-12-2015 and noticed that the adjacent land is Govt. Poramboke. Authority decided to grant E.C subject to the above specific conditions and general conditions on mining projects and production of no cluster certificate and additional clarification that, **proper survey markings may be insisted to block encroachment.**

5. State Environmental Impact Assessment Authority, Kerala hereby accord environmental clearance for the quarry project of Sri. K.K. Issac, Kolliallil House, Vengola P. O., Ernakulam in Sy. No. 511/6, 511/7, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-4, 510/2-2, 510/1-2, 510/2-3, 510/1-2 at Vengoor West Village, Mudakuzha Panchayath, Kunnathunadu Taluk, Ernakulam District, under the EIA notification, 2006, subject to the specific conditions in para 3 and the general conditions stipulated for mining projects appended hereto.

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 Pre-Feasibility report (chapter 4) mining features, chapter 4 of mining plan on mining, chapter 5 (blasting), chapter 6 (drainage), chapter 7 (stacking of mineral rejects and disposal of waste) and environment management plan in 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 undertakings and affidavits will be deemed to be part of these 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 earlier review in the event of violation or non-compliance of any of the conditions stipulated herein.

8. Compliance of the conditions herein will be monitored by the Directorate of Environment and Climate Change or its agencies 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, Ernakulam to take legal action under the Environment (Protection) Act, 1986.

The given address for correspondence with the authorised signatory of the project is
Sri. K. K. Issac, Kollialil House, Vengola P. O., Meprathupady, Perumbavoor, Ernakulam, Kerala.

Sd/-

P. MARA PANDIYAN, I.A.S.,
Member Secretary, SEIAA

&

Addl. Chief Secretary
Environment & Forests Department
Government of Kerala.

To,

Sri. K. K. Issac,
Kollialil House,
Vengola P. O.,
Meprathupady, Perumbavoor
Ernakulam, Kerala

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Principal Secretary to Government, Environment Department, Government of Kerala
3. The District Collector, Ernakulam
4. Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm-24
5. Director, Mining & geology, Thiruvananthapuram- 4.
6. The Secretary, Mudakkuzha Panchayat, Pandikadu Mudaakkuzha panchayat road, Vengoor West, Ernakulam - 683545
7. Chairman, SEIAA, Kerala
8. Website
9. S/f, O/c



Forwarded/ By Order

G. Rajeev,
Administrator,
SEIAA.

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA
GENERAL CONDITIONS (for mining projects)

- (i) Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) 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.
- (iv) Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project. .
- (v) Sprinklers shall be installed and used in the project site to contain dust emissions.
- (vi) Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
- (vii) 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 dumpings and overburden and planted with indigenous plant species that are eco-friendly.
- (viii) Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
- (ix) ***The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mine.***
- (x) Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
- (xi) Control measures on noise and vibration prescribed by KSPCB should be implemented.
- (xii) Quarrying activities should be limited to day time as per KSPCB guidelines.
- (xiii) Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
- (xiv) A licensed person should supervise/ control the blasting operations.
- (xv) Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- (xvi) Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored.
- (xvii) Height of benches should not exceed 5 m and width should not be less than 5 m.
- (xviii) Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
- (xix) ***Maximum depth of mining from general ground level at site shall not exceed 10m***
- (xx) No mining operations should be carried out at places having a slope greater than 45°.
- (xxi) 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.
- (xxii) The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
- (xxiii) Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
- (xxiv) The transportation of minerals should be done in covered trucks to contain dust emissions.
- (xxv) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- (xxvi) Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
- (xxvii) Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
- (xxviii) ***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

- (xxix) 200 m buffer distance should be maintained from forest boundaries.
- (xxx) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.
- (xxxix) 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.
- (xxxii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xxxiii) 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.
- (xxxiv) 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.
- (xxxv) 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 Department of Environment and Climate Change, Govt. of Kerala 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.
- (xxxvi) 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.
- (xxxvii) 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 Directorate of Environment and Climate Change, Govt. of Kerala.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) 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



for Member Secretary, SEIAA Kerala

G. RAJEEV

Administrator

State Environment Impact Assessment Authority

Pallimukku, Pettah

Thiruvananthapuram-695024

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