

Proceedings of the State Environmental Impact Assessment Authority Kerala-

(Present Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member, Dr. Nivedita P. Haran IAS, Member
Secretary & Additional Chief Secretary to Government (Environment Department))

**Sub: SEIAA Kerala - Proposed Quarry project by M/s. Karimala Granites & Aggregates Pvt. Ltd.
Kangazha Village & Panchayath, Chengannassery Taluk, Kottayam District, Kerala -
Environmental Clearance - Accorded**

Environmental Clearance

No. 222/SEIAA/KL/349/2014

dated, Thiruvananthapuram 29.11.2014

Ref:- 1. Application dated 09.12.2013 submitted by the Managing Director of Karimala Granites & Aggregates Pvt. Ltd., Kangazha P.O., Pathanad, Chengannassery, Kottayam District - 686541
Village & Panchayath, Chengannassery Taluk, Kottayam District, Kerala

2. Minutes of 25th meeting of SEAC held on 14th & 15th February 2014
3. Minutes of 32nd meeting of SEAC held on 12th & 13th August 2014
4. Minutes of the 34th meeting of SEIAA held on 24th October 2014

ORDER

1. Sri. K.J. Thomas Kutty Managing Director, M/s Karimala Granites & Aggregates Pvt. Ltd., Pathanad, Kangazha P.O., Chengannassery, Kottayam District - 686541, vide his application dated 22.01.2014, has sought Environmental Clearance under EIA Notification, 2006 for the building stone-quarry project in Sy. Nos. 286/10 (P), 286/1(P), 286/3(P), 286/4, 282/10, 278/4-1, 278/4-2, 278/4-3, 278/4-5, 278/4-4, 286/7(P), 286/2(P), 286/8(P), 286/6(P), 286/9(P), 278/6, 278/3(P), 278/2-1, 278/2, 278/7, 277/1(P), 277/9 and 286/5(P) at Kangazha Village & Panchayath, Chengannassery Taluk, Kottayam District, Kerala for an area 9.61.18 hectares. The project comes under Category B, 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. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

Name of project		Building Stone Quarry of Karimala Granites & Aggregates Pvt. Ltd.
Brief description of the project		Open Cast mining
Category/Subcategory & Schedule		Category B/B2 & Schedule 1 (a)
Location Sy no/district, Taluk/ village etc.		Sy. Nos. 286/10 (P), 286/1(P), 286/3(P), 286/4, 282/10, 278/4-1, 278/4-2, 278/4-3, 278/4-5, 278/4-4, 286/7(P), 286/2(P), 286/8(P), 286/6(P), 286/9(P), 278/6, 278/3(P), 278/2-1, 278/2, 278/7, 277/1(P), 277/9 and 286/5(P) at Kangazha Village & Panchayath, Chengannassery Taluk, Kottayam District, Kerala
GPS co-ordinates		Longitude: 76° 41' 16.51" E to 76° 41' 22.44" E. Latitude: 9° 30' 30.57" N to 9° 30' 37.59" N
for Mining projects	Extent of area (in hectares)	9.6118 hectares
	Minimum and maximum height of excavation (MSL)	Highest 160m MSL and Lowest 95m MSL
	Life of mine proposed	12 years

Ultimate depth of mining (in MSL)	80m MSL
Distance from the adjacent quarry	OP Baburaj Quarry - 150 mts- N MM Granites Pandiyankuzhi - 1 km - N
Capacity of production	1500 TPD
Details of Project Cost	Rs. 7.96 Crores
CRZ recommendations	Not Applicable
Forest clearances	Not Applicable

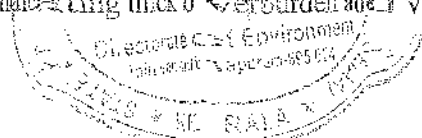
ABOUT THE PROJECT

Environmental parameters	Mitigation Measures
WATER	
Water requirement & sources	The total water requirement for the project is about 16.5 KLD with the following break up: 1. Domestic & Sanitary needs - 1.5 KLD 2. Dust suppression, Plantation, etc. - 15.0 KLD The entire water requirement is met from well & pond located inside lease area.
RWH units proposed	Yes, Rain water collection pond
Facilities for liquid waste treatment	Liquid domestic effluents are minimal and let out into septic tank and soak pits.
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	Not applicable
Does it have provisions for use of recycled water	Not applicable
LAND	
Proximity to forest lands	No
Access road to the site - Width & Condition	4 m. wide road to Changanassery - Vazhoor road (SH - N- 3 kms)
Storage of explosives /hazardous substances	Yes, Explosives will be stored as per Explosives Act/Rules.
Facility for solid waste mgmt	The municipal solid waste will be suitably disposed.
Topographic features/ slope	The topography of the lease area is rock area. The Influence of the lease area in m are :- Section 'A - A' = 65 Section 'B - B' = 75 Section 'C - C' = 75 Section 'D - D' = 75 Section 'E - E' = 75 Section 'F - F' = 75 Section 'G - G' = 70 Highest level = 160 m MSL, middle of the area Lowest level = 95 m MSL, S side

Top soil, Overburden etc.	Top soil - 0.46 lakh tonnes Overburden - 4.19 lakh tonnes
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AIR	
Air quality meeting requirements	Yes
Noise level meeting requirements	Yes
Likely emissions affecting environment	Only minor quantities of gaseous pollutants due to operation of diesel operated machineries like hydraulic excavators, hydraulic rock breakers, compressors, transport vehicles, etc.
ENERGY	
Energy requirement	No electricity is needed for Quarry operations as only diesel operated mining machinery including jack hammer are used for quarrying.
Energy Sources	From diesel engine.
BIODIVERSITY	
Presence of any endangered species or red listed category	No
Loss of native species and genetic diversity	No
SOCIAL ASPECTS	
Proximity to nearest habitation	106 m.
CSR components suggested	Bio-diversity fund - As part of Access and Benefit Share (ABS), 1 percent of annual profit of the firm would be given to Biodiversity Management Committee of the Panchayath through the concerned Grama Panchayath towards the restoration of biodiversity loss due to quarrying activities.
GENERAL	
Does it propose environment management plan	Yes
Does it have eco restoration programmes	Yes, Development of Greenbelt. Area all around the lease is owned by the proponent and in this area excellent rubber plantation is already developed. This acts as a good barrier preventing propagation of dust and noise outside the lease area.
Litigation/court cases, if any, against the project (provide details)	No
Details of Authorised Signatory	Sri. K.J. Thomas Kutty, Managing Director Karimala Granites Pvt.Ltd., Pathanad, Kangazha P.O., Kottayam District -686541. (Signature)
Details of NABET approved EIA consultant organisation	M/s Creative Engineers & Consultants Pvt. Ltd., 9 B/4, Bharatwajar Street, East Tambaram, Chennai -600 059. NABET/EIA/SA052/0413

2. The proposal was placed as agenda item No. 25.20 before the 25th SEAC meeting held on 14th and 15th February 2014. The project proponent made a brief presentation of the project. In the application and as stated by the consultant, the nearest house to the project site is located at a distance of 106 m but the proponent stated that the same is at a distance of 200 m from the project site. The Committee decided to ascertain the same during site visit. The Committee found from the geo. image that the project site is having dense vegetation predominated by rubber plantation indicating thick overburden and very fertile top soil.



Considering the details provided in the application, the information provided by the proponent and the documents submitted by the proponent, the item was deferred for site visit to assess the proximity of human settlements to the project site & overburden thickness in the site and directing the proponent to submit the following for further consideration of the proposal:


1. Map clearly demarcating the total area owned by the proponent and the proposed mining area with serial numbers.
2. Details on green belt development.
3. Perspective plan of 500 m radius clearly marking human settlements with density of population, facilities and other land uses.
4. Cadastral map duly certified by Village Officer.
5. Land use map/conceptual plan including all facilities marking distances from each facility.
6. Photographs of the existing quarry.
7. Revised mine closure plan after removing the pond proposed in the present plan.
8. Revised site specific biodiversity listing of flora and fauna duly authenticated by concerned expert.
9. Environmental quality analysis reports of four different locations of the project site.
- ~~10. Detailed split up of the proposed CSR activities specifically mentioning the various institutions to which the same shall be extended, with documentary evidence of the already done CSR activities.~~
- ~~3. As per the decision taken by the committee, a site visit was conducted by the expert~~

member Member of SEAC on 3rd March 2014 and made the following observations:

This working quarry is about 300 m North east of Pathanad centre. Undulating terrain with a central ridge with few old quarries in the vicinity of the present area. The slope is to North and South. Rock is generally foliated Charnockite. Top soil and overburden is seen in patches. Rubber is the dominant land use. The area has relatively dense settlement though not within 100 m of the quarry. The present method of quarrying in bits and pieces is to be discouraged. Steep cuttings are seen in old working faces a part of which is again planned to be quarried.

The following recommendations are made:

1. Steep cutting (>10 m on the S side) is seen on either side of the main haulage road posing hazardous condition. It needs to be filled and vegetated. Fencing is also necessary.
 2. The pond presently used as RWH structure need to be repaired for holding water.
 3. Top soil and overburden need to be stacked in designated places. Presently no such plan is apparent.
 4. Formation of benches are not in practice.
 5. Storm water management on either side of the sloping quarry faces is required. Storm water channels, desilting and clarification structures etc are necessary.
 6. Superimpose the cadastral map of the quarry area on the google image so that the boundaries of the quarry are clearly visible and assessment of the area can be done with greater precision.
 7. Care must be taken to mitigate the dangers on account of fly rocks in the settlement area and towards the main road and side road with dense traffic.
 8. A temple is seen within 250 m of the quarry. Quarry operations should not affect the normal functioning of centres of worship.
4. On submission of the additional clarifications called for the proponent, the application was placed for reconsideration in the 32nd SEAC meeting as agenda item no. 32.17. SEAC recommended the proposal subject to the following specific conditions in addition to the general conditions stipulated for mining Projects:



K. S. Srinivasulu

Deep cutting (>10 m on the south side) on either side of the main haulage road posing hazardous conditions should be filled and vegetated.

The pond presently used as RWH structure should be repaired for holding water.

The application, feasibility report and minutes of SEIAA were placed for consideration in the 34th SEIAA meeting as agenda item no. KLA/34.41. The Authority approved the proposal for issue of environmental clearance subject to the general and eight special conditions as per the recommendations of SEAC. EC will be for a period of five years only.

5. Environmental Clearance under EIA notification 2006 is accorded for the proposed quarry project of Sri. K.J. Thomas Kutty, Managing Director, M/s Karimala Granites & Aggregates Pvt. Ltd., subject to all the mining features, Environmental Management Plans as undertaken in the EMP (Pages 106 to 129 of Report) submitted to SEIAA which will form part of this proceedings as if incorporated herein and the following additional specific conditions, and the general conditions on mining of minor mineral appended hereto:

a) The following specific conditions in addition to the general conditions stipulated for mining projects; would also apply:

1. Steep cutting (>10 m on the south side) on either side of the main haulage road posing hazardous conditions should be filled and vegetated.
2. The pond presently used as RWH structure should be repaired for holding water.

6. Validity of this Environmental clearance will be 5 years and it will be subject to review at any stage earlier, if any of the conditions is the E.C. is violated, or not duly complied with.

- I. 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 and Forests, Govt. of India, Bangalore.
- II. 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.


For Member Secretary (SEIAA)

To,

Sri. K.J. Thomas Kutty,
M/s Karimala Granites & Aggregates Pvt. Ltd.,
Kangazha P.O., Pathanad,
Changanassery Taluk
Kottayam - 686541.

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore - 560034
2. The Addl. Chief Secretary to Government, Environment Dept., Government of Kerala
3. The District Collector, Kottayam
4. The Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tri vandrum - 24
5. The Director, Mining and Geology Department, Government of Kerala
6. The Secretary, Kangazha Grama Panchayath, Changanassery Taluk, Kottayam District
7. Website
8. Stock file
9. O/c

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

GENERAL CONDITIONS (for mining projects)

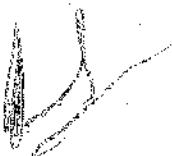
- (i) Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) Suitable avenue trees should be planted 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 and 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.

initiating activity.

- (xxx) 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 or consent given by any other authority for the same project.




Member Secretary, SEIAA Kerala


K. Z. Mousabiy