



सत्यमेव जयते

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Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: SEIAA- Environmental Clearance for the proposed quarry project in Sy. Nos. 313/1 (P), 313/4 (P), 312/3 (P), 313/2 (P), 315/1 (P), 311/4 (P), 311/6 (P), 315/6 (P), 315/5 (P), 315/4 (P) & 315/3 (P) at Vellavoor Village, Changanassery Taluk, Kottayam District, by M/s G.K. Granites Limited- Granted. Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 524/SEIAA/EC4/3828/2014

dated, Thiruvananthapuram 09-11-2015

- Read:* 1. Application dated 7-8-2014 submitted by Sri. George Antony, Managing Director, Kureekkal House, Kizhakkambalam village, Kunnathunadu Taluk, Ernakulam District
2. Minutes of the 41st meeting of SEAC held on 16/17-6-2015.
3. Minutes of the 43rd meeting of SEAC held on 15-7-2015.
4. Minutes of the 41st meeting of SEIAA held on 2-9-2015.

Environmental Clearance No. 94/2015

Sri. George Antony, Managing Director, M/s G.K. Granites Limited, Kureekkal House, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District-683562 vide his application received on 12-08-2014, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 313/1 (P), 313/4 (P), 312/3 (P), 313/2 (P), 315/1 (P), 311/4 (P), 311/6 (P), 315/6 (P), 315/5 (P), 315/4 (P) & 315/3 (P) at Vellavoor Village, Changanassery Taluk, Kottayam District, Kerala for an area of 3.2522 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-LA-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-LA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. The proposed project site falls within N 9° 28' 18.63" - 9° 28' 32.58" E - 76° 43' 10.97" - 76° 43' 17.12 ". The present land use is rocky land with quarrying activities. The proposed production capacity is 650 Tonnes per Day. The expected life of mine will be 4 years. The current proposal is for the existing quarry. Hence no alternate site was examined. The quarry is not interlinked with a crusher unit located within the complex. The proponent stated in

Form I that in the mine closure stage, part of the northern pit will be backfilled and reclaimed with native species. In both the pits there will be some water body up to the general RL of +35m MSL above which the benches will be reclaimed with bench plantation. Out of 2.0713 Ha of mined out area, 0.5271 Ha will be left as water body and the remaining 1.5442 Ha of land will be reclaimed back with bench plantation. The mined area will be properly fenced all around. The project does not require approval/clearance under forest conservation act or Wild life protection act or CRZ notification, since there is no declared biosphere reserve, wild life sanctuaries, or tiger sanctuary or migrating corridor, coastal zone etc. in the core zone and 10 km buffer zone. There is no Government order relating to the proposed site. The proposed site falls in the Moderate category of Seismic Zone i.e., Zone-III. Manimala River (SE) flows about 1.3 km away from the lease area and drainage channel is passing in the eastern side at a distance of more than 50 m from the mine boundary. As per the biodiversity listing provided by the proponent, there is no endemic or endangered species which are in the red listed category or Schedule-I species occurring in the proposed area. Other details of the case are as under:

BASIC INFORMATION OF THE PROJECT

Details of project cost	Not mentioned
Environmental parameters considered	
WATER	
Water requirement & sources	The total water requirement is about 9.5KLD (Domestic – 2 KLD, Dust suppression & Green belt – 7.5 KLD). The source of water is from rain water harvested in the mine sump and bore wells
RWH units proposed	Rain water harvested in the mine sump
Facilities for liquid waste treatment	About 1.2KLD domestic effluent will be generated and it will be disposed into septic tanks with soak pit.
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	Not applicable
Does it have provisions for use of recycled water	No
LAND	
Proximity to forest lands	No
Access road to the site -	7 m

Width & Condition	
Storage of explosives /hazardous substances	Explosives will be stored as per Explosives Act/Rules.
Facility for solid waste management	The generated top soil will be stacked separately and used for reclamation purpose
Proneness of the area for landslides	No
Significant land disturbance resulting in erosion, subsidence & instability	No
Top soil, overburden etc.	Top soil – 2500 cu.m. Overburden – 30,000 cu.m.
AIR	
Likely emissions affecting environment	Only minor quantities of gaseous pollutants due to operation of diesel operated machineries like hydraulic excavators, compressors, transport vehicles, etc. These will be controlled through proper effective remedial measures and proper Environmental Management Plan.
ENERGY	
Energy requirement	No electricity is needed for quarry operations as only diesel operated mining machinery including jack hammer are used for quarrying. Hence the negligible power requirement of the administrative buildings etc., are met from state grid. The peak power demand is expected to be about 700 KVA only and that is mainly for the adjacent crusher. Stand by Generators 1 x 725 KVA, 1 x 320 KVA is provided in the crusher area.
Extent of usage of alternative energy resources	Nil
BIODIVERSITY	
Presence of any endangered species or red listed category	No
Loss of native species and genetic diversity	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	No
SOCIAL ASPECTS	
Proximity to nearest habitation	100 m
CSR related to the project / allocation / time frame (details mandatory)	For CSR activities, Rs.10 Lakhs will be allocated for community development, education, charitable activities, maintenance of Panchayath road
GENERAL	
Litigation/court cases, if any, against the project (Provide details)	No
Right & nature of ownership of land	Patta land
Is the property forest land/govt. land/own land	Own land
Details of Authorised Signatory	Sri. George Antony Managing Director Kureekkal House, Kizhakkambalam village, Kunnathunadu Taluk, Ernakulam District. Mobile: 09496080008 Email- gkgranitesltd@gmail.com
Details of NABET approved EIA consultant organisation	Creative Engineers & Consultants, 9/4b, Barathwajar Street, East Tambaram, Chennai – 600 059. Ph – 044 – 22395170 Mobile : 9444133619 Email – cecgiri@yahoo.com

3. As per the KMMC Rules 2015, the proponent has submitted the approved mining plan. The proposal was placed in the 41th meeting of SEAC held on 16th and 17th June 2015 and the Committee decided to defer the item for site visit. As per the decision taken by 41st SEAC, filed visit was carried out on 04.07.2015 by the sub-committee of SEAC, Kerala and made the following observations:

The project is an active quarry, located at about 4 km southwest of Manimala. The proposed quarry area falling in own land lies on a hill ridge with moderate to steep slopes to the east. The outer boundaries of the lease area are delineated with pillars and the GPS reading of the pillar is provided in a painted board. Steep cuttings of older working faces are being altered to form benches. The rock type is massive to weakly foliated charnockite with widely spaced fractures. Major faults are not observed. The lease area can be divided into three segments viz. a) northern block where quarry is currently active, b) central part which houses the crusher unit and c) the southern block where rock has been exploited and currently being used for storing OB and the products from the crusher mainly aggregates. It is planned to fully exploit the northern part and then exploit the southern part. The upper slopes of the southern block exposes hard rock where quarrying has not been initiated. The

storage of OB and washed fine dust from the crusher in the upper levels without any vegetation cover has resulted in a steeply sloping surface that is likely to fail. Rubber plantation is the dominant land use in the area. The storm water from the slopes flows down as overland flow without any channelisation. Dwelling units are not seen within 100 m. However, buildings and a temple are seen within 200m to the south. A major road is seen flowing on the eastern side of the quarry with significant flow at the time of inspection. The proponent has provided limited accommodation and full-fledged canteen facilities. Blasting is done three times a day. The certificate from the Revenue officials that this land has not been assigned for any other purposes has not been verified.

Based on an overall evaluation of the site, following recommendations were made:

1. Over burden is to be stored in a designated place in the lower part to avoid slope failure or mud flow and provided with protective support walls.
 2. The drainage from the quarry must be channelised to the eastern part with proper desiltation and clarification mechanism. RWH structure must be created for the collection of part of the rainwater.
 3. It is necessary to provide catch water drains at the lower levels of the lease area to safely dispose the storm water. Only clarified water is to be let out of the area.
 4. The approach road to the quarry is a narrow public road which must be and maintained in good motorable condition by the proponent.
 5. The blasting time must be displayed and strictly adhered to. Considering the proximity to a public road it is better to limit blasting to two times a day when the traffic density is least. The PPV values must be less than 10 mm/sec. Steps to be taken to limit fly rock to the quarry area.
 6. Considering the importance of the stream with a length of more than 10 km and a catchment of more than 20 sq. Km, a buffer distance of 10 m be provided on either side as a no development zone. Native species presently seen in its banks must be promoted through a planned afforestation scheme.
 7. Other types of tree cover seen all around the quarry must be maintained till the entire life of quarry.
 8. Other items from general condition and CSR may be added.
4. The proposal was again placed in the 43rd meeting of SEAC held on 15th July 2015 as agenda item no.43.08. The Committee appraised the proposal based on the Mining Plan, Prefeasibility Report, field investigation report and all other documents submitted along with the Form I application 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 is to be stored in a designated place in the lower part to avoid slope failure or mud flow and provided with protective support walls.
 2. The drainage from the quarry must be channelised to the eastern part with proper desiltation and clarification mechanism. RWH structure must be created for the collection of part of the rainwater.
 3. It is necessary to provide catch water drains at the lower levels of the lease area to

safely dispose the storm water.

4. The approach road to the quarry is a narrow public road which must be widened and maintained in good motorable condition by the proponent.
5. The blasting time must be displayed and strictly adhered to. Considering the proximity to a public road it is better to limit blasting to two times a day when the traffic density is least. Steps to be taken to limit fly rock to the quarry area.
6. Considering the importance of the stream with a length of more than 10 km and a catchment of more than 20 sq. Km, a buffer distance of 10 m be provided on either side as a no development zone.
7. Native species presently seen in its banks must be promoted through a planned afforestation scheme.
8. Other types of tree cover seen all around the quarry must be maintained till the entire life of quarry. Reclamation and eco-restoration should be done by planting native species.
9. To the extent possible local Biodiversity Management Committee should be involved in the environmental management/restoration activities.

5. The proposal was placed in the 41st meeting of SEIAA held on 2nd September 2015. The Authority considered the proposal as appraised and decided to grant E.C subject to the specific conditions mentioned in the para 4 above, on production of certificate of accreditation by NABET for the consultant. The documents called for having been submitted and on being satisfied that there are no other quarry in operation within 500 meters of this quarry, and there is no notified protected areas, wild Life sanctuaries, or Ecologically Sensitive Areas within 200 meters from the periphery of the mining area and there is proper undertaking that the committed CSR activities will be implemented the State Environmental Impact Assessment Authority, Kerala hereby accord environmental clearance under the EIA notification 2006, for the quarry project of Sri. George Antony, Managing Director, M/s G.K. Granites Limited, Kurekkal House, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District-683562 from 3.2522 ha of private land in Sy. Nos. 313/1 (P), 313/4 (P), 312/3 (P), 313/2 (P), 315/1 (P), 311/4 (P), 311/6 (P), 315/6 (P), 315/5 (P), 315/4 (P) & 315/3 (P) at Vellavoor Village, Changanassery Taluk, Kottayam District.

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 Enclosure-6 the Environment Management Plan, (pages 101 to 121) and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and undertakings in chapter 4(Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (stacking of mineral rejects and disposal of wastes) Chapter 11 (EMP) of the Mining Plan and the entire Progressive Mine Closure Plan as submitted will be deemed to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.

9. 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.

10. 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, Kottayam to take legal action under the Environment (Protection) Act 1986.

iii) The given address for correspondence with the authorised signatory of the project is Sri. George Antony, Managing Director, M/s G.K. Granites Limited, Kureekkal House, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District-683562.

Sd/-

P. MARA PANDIYAN, I.A.S.,
Member Secretary (SEIAA)
&
Principal Secretary
Environment & Forests Department.
Government of Kerala.

To,

Sri. George Antony,
Managing Director,
M/s G.K. Granites Limited,
Kureekkal House,
Kizhakkambalam Village,
Kunnathunadu Taluk,
Ernakulam District-683562

Copy to:

MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E& F Wing,
II block, Koramangala, Bangalore-560034.
Principal Secretary to Government, Environment Department

The District Collector, Kottayam

The Director, Department of Environment & Climate Change

The Director, Mining and Geology Department, Govt. of Kerala

The Secretary, Vellavoor Grama Panchayat, Kottayam

Chairman, SEIAA

Website

Stock File

O/C.

Forwarded / By Order

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 dumping 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.
- (xxxi) 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 the 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 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.
- (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

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