



Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: Environmental Clearance - Application for environmental clearance for the quarry project in Survey Nos. 283/4-2-1-1 pt., 284/3 pt., 284/4 pt., 284/3-2pt., 284/4-2 pt., 284/5-3, 285/3-2 pt., 285/4-2 pt., 285/5-1pt., 285/5-2 pt., 285/6-2, 285/10-1 pt., 285/11 pt., 387/1-1pt., 387/1-2 pt., Chithara Village & Panchayat, Kottarakkara Taluk, Kollam District, Kerala for M/s Masonry Stone Mine (Quarry) project of Sri. Sunil Kumar, S. -E.C-Granted

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 813/SEIAA/EC3/2484/2015

dated, Thiruvananthapuram 11-02-2016

- Read:-**
1. Application dated 24.06.2015 from Sri. Sunil Kumar, S., Sreelekshmi, Reghunathapuram, Varkala P. O., Thiruvananthapuram Dist. – 695141.
 2. Minutes of the 49th meeting of SEAC held on 7/8-12-2015.
 3. Minutes of the 48th meeting of SEIAA held on 23-01-2016.

ENVIRONMENTAL CLEARANCE NO.16/2015

Sri. Sunil Kumar, S. Sreelekshmi, Reghunathapuram, Varkala P. O., Thiruvananthapuram Dist. – 695141, vide his application dated 24.06.2015, has sought Environmental Clearance under EIA Notification, 2006 for the proposed Expansion of Building Stone Quarry in Survey Nos. 283/4-2-1-1 pt., 284/3 pt., 284/4 pt., 284/3-2pt., 284/4-2 pt., 284/5-3, 285/3-2 pt., 285/4-2 pt., 285/5-1pt., 285/5-2 pt., 285/6-2, 285/10-1 pt., 285/11 pt., 387/1-1pt., 387/1-2 pt., Chithara Village & Panchayat, Kottarakkara Taluk, Kollam District, Kerala for an area of 3.3394 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) dtd. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

DETAILS OF THE PROJECT

Name of project		Quarry project of Sri. Sunil Kumar, S.	
Brief description of the project		Quarry project with an area of 3.3394 ha. & production capacity of 1,25,000 MTA	
Category/Subcategory & Schedule		Category B/B ₂ & Schedule 1 (a)	
Location Sy no/ district, Taluk/ village etc.		Survey Nos. 283/4-2-1-1 pt., 284/3 pt., 284/4 pt., 284/3-2pt., 284/4-2 pt., 284/5-3, 285/3-2 pt., 285/4-2 pt., 285/5-1pt., 285/5-2 pt., 285/6-2, 285/10-1 pt., 285/11 pt., 387/1-1pt., 387/1-2 pt., Chithara Village & Panchayat, Kottarakkara Taluk, Kollam District, Kerala	
GPS co-ordinates	Latitude (N)	8 ⁰ 47'00.85" to 8 ⁰ 46'53.45"	
	Longitude (E)	77 ⁰ 00'20.01" to 7 ⁰ 00'11.30"	
for Mining projects	Extent of area (in hectares)		3.3394 ha.
	Minimum and maximum height of excavation (MSL)		257 m MSL and 197 m. MSL
	Life of mine proposed		17.5 Years
	Ultimate depth of mining (in MSL)		192 m MSL
	Distance from the adjacent quarry		There is no quarry in operation within 500m.
	Capacity of production		1,25,000 MTA
	Details of Project Cost		Rs. 4.37 Crores.
	Financial Statement including funding source		Source of funding = Own source & loan from bank.
ABOUT THE PROJECT			
Environmental parameters considered		Description	
WATER			
Water requirement & sources		The total water requirement is about 15 KLD in which 1 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary unit and 2 KLD for plantation purposes and will be sourced from storm water pond.	
RWH units proposed		Rain water collection pond.	

Facilities for liquid waste treatment	Not applicable
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 study area
Access road to the site –Width & Condition	6 m. wide, tarred road, NE
Storage of explosives /hazardous substances	Explosives will be stored as per Explosive 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 & exposed rock small part of area covered with native tree, climbers, grass, shrubs, herbs etc. Slope = towards north-east side.
Proneness of the area for landslides	No
Top soil, overburden etc.	Top soil = 26,715 cu.m. Overburden = 10,018 cu.m.
AIR	
Air quality meeting requirements	As per rules
Noise level meeting requirements	As per rules
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 compressions, which will be drawn from diesel engine.
Energy Sources	From diesel engine.
Extent of usage of alternative energy resources	No

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, climbers etc. existing at project site will be cleared.	
Likely displacement of fauna		No	
Any introduction of alien / invasive species		No	
SOCIAL ASPECTS			
Proximity to nearest habitation		173 m, W	
CSR components suggested			
Sl. No	Description	Approx. Amount proposed	Remarks
1.	Development of school	Recurring = Rs. 12.00 lakhs Non-recurring = Rs. 8.00 lakhs	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 is provided.
2.	Promotion of education		
3.	Health care		
4.	Development of basic infrastructure facilities		
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 3,000 trees will be planted. The main aim of the green belt development is to restore the eco-system to its original form to a maximum extent by designing the green cover with the same native species.	
Litigation/court cases, if any, against the project (provide details)			Nil
ADDITIONAL CLARIFICATIONS			
Details of Authorised Signatory		Quarry project of Sri. Sunil Kumar, S.	
Details of NABET approved EIA consultant organization		M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 54 as per MoEF & CC list of Accredited Consultant Organization) Head Office: - A1-198, Janak Puri, New Delhi.	

2. The case was first considered in the 47th meeting of SEAC. The Committee deferred the item for field visit by the subcommittee concerned. Site visit which was carried out on 22.10.2015 by Prof. Oommen V. Oommen and Sri. John Mathai. Report is as follows;

‘The quarry project site that yet to be developed is located at about 5.5 km southeast of Chithara on the Challimukku-Chakkamala road. This quarry lease in own land covers an area 3.3394 ha out of 5.9434 ha. The lands occupy the moderate to steep north easterly slopes of a prominent hillock exposing hard rock. The elevation of the lease area ranges from 260m in the summit to 200m in the north eastern part. The rock type is mostly massive Charnockite with Augen Gneiss like appearance on weathered surface. Pockets of weathered rock with more than 1 m thick over burden (OB) and top soil is seen interspersed with rock out crops. The entire drainage from the elevated land and the sloping part flows as sheet flow without any channelisation. Prominent streams are not in the vicinity as this hillock is located in the water divide region of two major tributaries of Vamanapuram river. Rubber is the dominant land-use in the patches with soil cover while the rocky areas are barren with grass cover. Floral biodiversity is not observed as it is considerably disturbed. Dwelling units are not seen in the immediate vicinity of 100m. An old quarry pit is seen to the south. The main haulage road is yet to be developed.

Based on an overall evaluation of the site, the quarry operations may be recommended with following conditions:

1. Fencing should be provided all around the lease area.
2. Storm water drainage from the upper part must be channelised properly and let out through well-defined channels. Considering the topography catch water drain should also be provided on the lower part for the safety of crusher unit and other facilities.
3. The RWH structure and water clarification mechanism planned should be in place. Periodic desiltation is mandatory.
4. Ultimate depth of mine which will depend on the possible benches of 5m width and 5m height in the lease area as no prominent streams are seen in the vicinity.

5. The road leading to the quarry and the haulage lines should be kept in kept in pristine condition with sufficient width.
6. Other items from general conditions like a) appropriate sign boards should be displayed b) the blasting time must be displayed and strictly adhered to c) the PPV values must be less than 10 mm/sec d) steps to be taken to limit fly rock to within the lease area. rock fragments should not fall anywhere outside the lease area e) dust suppression mechanism must be in place f) a belt of trees (vegetation belt) should be maintained all around the quarry but must be maintained till the entire life of quarry g) a separate small plot to be maintained in the premise to preserve rare and endemic species, if any, listed in the biodiversity assessment etc.'

3. On receipt of the IR, the 49th meeting of SEAC held on 7/8th Dec. 2015 appraised the proposal based on the Mining Plan, Prefeasibility Report, field inspection report and all other documents submitted along with the Form-I application and recommended for issuance of Environmental Clearance for mining with following specific conditions, in addition to the general conditions stipulated for mining projects appended hereto.

1. Fencing should be provided all around the lease area.
2. Storm water drainage from the upper part must be channelised through well-defined channels. Considering the topography catch water drain should also be provided on the lower part for the safety of crusher unit and other facilities.
3. The RWH structure and water clarification mechanism planned should be in place. Periodic desiltation is mandatory.
4. The road leading to the quarry and the haulage lines should be kept in pristine condition with sufficient width.

The above recommendations were considered by SEIAA in its 48th meeting of SEIAA held on 23-01-2016 and decided to grant E.C. subject to the usual conditions for mining projects and the conditions proposed by the Subcommittee which were omitted by SEAC (4 and 6) in para 4 above. The Authority decided to accord environmental clearance for the quarry project of Sri. Sunil Kumar, S. Sreelekshmi, Reghunathapuram, Varkala P. O., Thiruvananthapuram District, Kerala – 695141 in Survey Nos. 283/4-2-1-1

pt., 284/3 pt., 284/4 pt., 284/3-2pt., 284/4-2 pt., 284/5-3, 285/3-2 pt., 285/4-2 pt., 285/5-1pt., 285/5-2 pt., 285/6-2, 285/10-1 pt., 285/11 pt., 387/1-1pt., 387/1-2 pt., Chithara Village & Panchayat, Kottarakkara Taluk, Kollam District, Kerala under the EIA notification 2006, with the specific conditions referred to in items 1 to 6 of para2 above, in addition to the general conditions stipulated for mining projects as appended hereto:

4. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in Chapter 4 and Environment Management Plan in Chapter 5 and 6 of the Pre-Feasibility report mining features; chapter 4 (Mining) chapter 5 (Blasting) chapter 6 (Mines Drainage) chapter 7 (Stacking of mineral rejects and disposal of wastes) chapter 11 (EMP) including the entire progressive mine closure plan, chapter 12 as the approved mining plan and relied on for grant of this clearance. The above undertakings and the conditions and undertakings in the above chapters will be deemed to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.

5. Validity of the environmental clearance will be five years form the date of this clearance, subject to earlier review in the event of violation or non- compliance of any of the conditions stipulated herein.

6. 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.

7. The given address for correspondence with the authorised signatory of the project is Sri. Sunil Kumar, S., Sreelekshmi, Reghunathapuram, Varkala P. O., Thiruvananthapuram, Kerala – 695141.

Sd/-
P. MARA PANDIYAN, I.A.S.
Member Secretary, SEIAA
&
Addl. Chief Secretary
Environment & Forests Department
Government of Kerala.

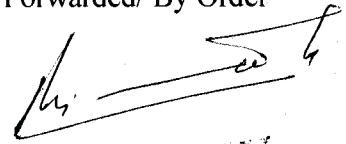
To,

Sri. Sunil Kumar, S., Sreelekshmi,
Reghunathapuram, Varkala P. O.,
Thiruvananthapuram, Kerala – 695141

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The District Collector, Kollam
4. Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm-24
5. Director, Mining & Geology, Thiruvananthapuram-4.
6. The Secretary, Chithara Grama Panchayat, Kollam- 691559
7. Chairman, SEIAA, Kerala
8. Website
9. S/f, O/c

Forwarded/ By Order



G. Rajeev,
Administrator



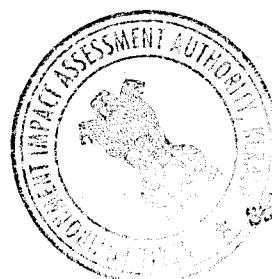
State Environment Impact Assessment Authority
Pellissery, Pettah
Thiruvananthapuram-695024
Phone: 0471-2742264

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 5m and width should not be less than 5m.
- (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

- (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 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 '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.
- (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.

Forwarded/ By order



Administrator,
SEIAA.

State Environment Impact Assessment Authority
Thiruvananthapuram
Phone: 0471 2312144