



सत्यमेव जयते

Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub: Environmental Clearance - Application for Environmental clearance for quarry project in Sy. No. 1083/12, 1084/6.2.13, 1077/1A, 1084/6.2 and 1084/1 at Memury Village, Memury Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala, for Stone Quarry Mining (Quarry) project of Sri. Stephen Joseph – E.C- Granted

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 792/SEIAA/EC3/1711/2015

dated, Thiruvananthapuram 11-03-2016

- Read:-**
1. Application dated 05.05.2015 from Sri. Stephen Joseph, Managing Director, Aden, Mamalathazhath, Thrippunithura P.O., Ernakulam District, Kerala – 682301.
 2. Minutes of the 47th meeting of SEAC held on 13/14-10-2015.
 3. Minutes of the 45th meeting of SEIAA held on 04-12-2015.
 4. Minutes of the 48th meeting of SEIAA held on 23-01-2016.

ENVIRONMENTAL CLEARANCE NO. 36 /2016

Sri. Stephen Joseph, Managing Director, Aden, Mamalathazhath, Thrippunithura P.O., Ernakulam District, Kerala – 682301, vide his application dated 05.05.2015, has sought Environmental Clearance under EIA Notification, 2006 for the proposed Expansion of Building Stone Quarry in Survey Nos. 1083/12, 1084/6.2.13, 1077/1A, 1084/6.2 and 1084/1 at Memury Village, Memury Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala for an area of 1.0844 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.

The proposed project site falls within Latitudes - 9° 56' 38.25" N to 9° 56' 37.04" N to 9° 56' 36.07"N to 9° 56' 33.56"N to 9° 56' 36.97"N to 9° 56' 37.43" N Longitudes - 76° 31' 43.63" E to 76° 31' 47.69" E to 76° 31' 48.7" E to 76° 31' 47.36" E to 76° 31' 43.86" E to 76° 31' 43.05" The lease area consists of 1. 0844 hectares, which is totally private land and nature of land is rocky with rubber plantation. No other quarries fall within 500 m radius. Nearest human settlement is recorded as 50m. The proposed project is for quarrying of 10,000 TPA of building stone. It is stated that there is no water bodies near to site but cadastral map shows a stream very near to this site.

BASIC DETAILS OF THE PROJECT

Name of project		M/s Crystal Aggregates Pvt. Ltd.
Brief description of the project		M/s. Crystal Aggregates Pvt. Ltd. is a private limited company, doing mining and trading of stone, (Building/construction).
Category/Subcategory & Schedule		Schedule 1 (a), Category B2
Location Sy no/ district, Taluk/ village etc.		Survey No. 1083/12, 1084/6.2.13, 1077/1A, 1084/6.2 and 1084/1 Village: Memury Taluk: Muvattupuzha District: Ernakulam
GPS co-ordinates		Latitude (N)- 09.5634 to 09.5638
		Longitude (E) - 76.451 to 76.496
for Mining projects	Extent of area (in hectares)	1.0844 Ha
	Minimum and maximum height of excavation (MSL)	Min: 80 meters Max: 115 meters
	Life of mine proposed	17 years
	Ultimate depth of mining (in MSL)	75 meters
	Distance from the adjacent quarry	1.10 km
	Capacity of production	10000 MTA
	Details of Project Cost	Total Estimated Project Cost is Rs. 1,03,28,000/- Land Cost: Rs. 43,28,000/- Machinery Cost: Rs. 60,00,000/-
	Financial Statement including funding source and details of insurance	Self

About the project		
Environmental parameters considered		Description
WATER		
Water requirement & sources	Only 3.5 KLD water will be required for domestic purpose, green belt development and dust suppression. Source of water will be tanker supply.	
RWH units proposed	No	
Facilities for liquid waste treatment	Domestic sewage treated in septic tanks, will be discharged into soak pits. Other than that no effluent is generated.	
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?		No
LAND		
Is the land assigned for any other special purpose; Give details		No
Access road to the site – Width & Condition	Access road is provided to the site having a width of 7 meters	
Storage of explosives /hazardous substances	Explosives will be stored in duly licensed magazine and transported in explosive van. Explosives will be handled and used by authorized persons certified under “MMR 1961”.	
Facility for solid waste management	Domestic waste (solid waste, food waste and other PVC packets) will be generated, which shall be disposed into waste bins and disposed.	
Topographic features/slope	Part of the proposed land is already under, mining and there is no vegetation in that area. The remaining land in the proposed land is mostly covered with native trees, shrubs, herbs, grass, climbers, bushes etc. The highest elevation of the lease area is 115 m. MSL and lowest is 80 m MSL. As the proposed area is hill rock, the drainage of the lease area is towards N & S. No habitants are located in the lease area.	
Proneness of the area for landslides	The final pit slope will be kept at not steeper than 45° which is not likely to cause any problem in respect of slope stability. Thus there is no likelihood of any land slide at any stage in future.	
Significant land disturbance resulting in erosion, subsidence & instability	The final pit slope will be kept at not steeper than 45° which is not likely to cause any problem in respect of slope stability. Thus there is no likelihood of any land slide at any stage in future.	
Top soil, overburden etc.	A total quantity of 10888 cu. m. of topsoil is proposed to be removed during the mining operations. The topsoil excavated from the quarry will be dumped separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation. Precautions will be taken to limit the height of the topsoil dump to 5 to 6 meters in order to	

Top soil, overburden etc.	preserve its fertility and shelf life. It will be suitably protected from soil erosion and infertility by planting fodder grass and leguminous plants during temporary storage. 5444m ³ of overburden will be generated in three year (1814.67 m ³ yearly) during mining activity and will be used for backfilling the excavated pits and for plantation purpose.	
AIR		
Air quality meeting requirements	Mining operation is of small scale so air pollution due to dust will be negligible. Wet drilling has been proposed to minimize the dust. Water sprinklers were proposed on haul road once in a day especially during dry seasons	
Noise level meeting requirements	Due to semi-mechanized extraction and loading unloading of material, noise will be generated temporarily. Noise will be generated from blasting & from operation of drill machine & compressor only. However, earmuffs will be provided to the workers/operators at the time of blasting & drilling operation.	
Likely emissions affecting environment	Dust and fugitive emissions will be generated during activities such as blasting, screening, loading and transportation of minerals. Fuel gas emissions from vehicles are anticipated during transportation of mined out material.	
ENERGY		
Energy requirement	No electricity will be required as mining will be carried out during daytime by opencast semimechanized method. Minimal power required for office shall be taken from the general electric supply of the area.	
Energy Sources General electric supply of the area.	Energy Sources General electric supply of the area.	
Extent of usage of alternative energy resources	Fuel will be used for transportation purpose only.	
BIODIVERSITY		
Presence of any endangered species or red listed category		Nil
Loss of native species and genetic diversity	Part of the proposed land is already under mining and there is no vegetation in that area. The remaining land in the proposed land is mostly covered with native trees, shrubs, herbs, grass, climbers, bushes etc. During operational phase, plant species will be cleared from mine site and same will be planted during the process of afforestation.	

Likely displacement of fauna	There is no wild life in core zone, buffer zone and lease area. The barren and agricultural lands with urban activities all around the area do not provide favorable home land to wild fauna.	
Any introduction of alien / invasive species		Nil
SOCIAL ASPECTS		
Proximity to nearest habitation	There is no habitation/population in the mine lease area, displacement of population and hence Rehabilitation & resettlement is not involved.	
CSR components suggested		
Sl. No.	Description	Approx. Amount proposed
1	Kits supply to surrounding local inhabitants during Festivals like Onam, Christmas and Eid	Rs. 50,000/-
2	Release of 1% of annual profit to Biodiversity Management Committee, Memury Village	Rs. 25,000/-
3	Fund for various functions like marriage, funeral etc in financially backward families at Memury region	Rs. 50,000/-
4	Drinking water supply at Memury, Ooramana region	Rs. 25,000/-
5	Uniforms and study materials distribution for school children at nearest schools	Rs. 50,000/-
Total		Rs. 2,00,000/-
ADDITIONAL CLARIFICATIONS		
Details of Authorised Signatory	Stephen Joseph, Managing Director, M/s Crystal Aggregates Pvt. Ltd. Residential Address: Aden, Mamalathazhath, Thrippunithura P.O. District-Ernakulam, Kerala - 682301 Email: kottavathil.tpra@gmail.com Mob: +91- 9495221569	
Details of NABET approved EIA consultant organization	M/s Mantec Consultants Pvt. Ltd., D-36, Sector - 6, Noida - 201301 Registered Address 805, Vishal Bhawan, 95, Nehru Place, New Delhi - 110019	
2. The case was first considered in the 47 th meeting of SEAC. The Committee appraised the proposal based on Mining Plan, Prefeasibility Report and all other docum-		

ents submitted along with the Form I application and observations from the PowerPoint presentations viz. quarry is currently not working, no other quarries are situated within 500m radius and there are houses within 100m radius (in the proposal they agreed that there are settlements within 100m), decided to recommend for issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects.

1. Quarrying operation shall be carried out by leaving a buffer distance of 100 m from the nearest house.
2. To the extent possible local biodiversity management Committee shall be involved in the environmental management/restoration activities.
3. Reclamation and eco-restoration should be done by planting native species.

45th meeting of SEIAA held on 04.12.2015 decided to conduct a site inspection before deciding on grant of E.C. as there are some discrepancies found regarding human settlement and water body. The inspection report is as follows;

As per the decision in the 45th meeting of SEIAA, the Chairman, SEIAA together with the Administrator visited the quarry site of M/s Crystal Aggregates Pvt. Ltd., at Memury Village, Memury Panchayath, Muvattupuzha Taluk, Ernakulam. It is a permit quarry working for the last 9 years. There are three houses within 100m. Mining is proposed in the area opposite to where the houses are. According to the quarry operators, there are no inhabitants in one house and the other two are taken on rent by them for residential purpose of workers. All around there is rubber cultivation.

Deep pit has been formed. There is no outlet for the water collected. The mining done is in unscientific manner and large boulders are seen remaining on slopes posing danger to workers. Road to the quarry is also not well maintained. No bench has been formed so far. Scientific mining has to be exercised as per mining plan. Quarrying may be permitted;

1. provided the depth of mine pit maintained at the maximum level of 10m,
2. restoring the rest with topsoil/ overburden,
3. fencing off the entire mining area.
4. an affidavit may be submitted by the project proponent to the effect that the nearby dwelling units have no objection.

5. project proponent should give an affidavit agreeing to the above conditions with the time limit before the issuance of E.C.

On receipt of the IR, the case was reconsidered by SEIAA in its 48th meeting of SEIAA held on 23-01-2016 and decided to issue E.C subject to the recommendations of SEAC and the suggestions of the inspection team of SEIAA in addition to the general conditions stipulated for mining projects. State Environmental Impact Assessment Authority, Kerala hereby accord environmental clearance for the quarry project owned by Sri. Stephen Joseph, Managing Director, Aden, Mamalathazhath, Thrippunithura P.O., Ernakulam District, Kerala – 682301 in Survey Nos. 1083/12, 1084/6.2.13, 1077/1A, 1084/6.2 and 1084/1 at Memury Village, Memury Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala under the EIA notification 2006, with the following specific conditions, in addition to the general conditions stipulated for mining projects as appended hereto:

- (i) To the extent possible, local Biodiversity Management Committee shall be involved in the Environmental Management/ restoration activities.

- (ii) Reclamation and eco restoration should be done by planting native species.

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 2 to 8 of the Pre-Feasibility report mining features and environment management plan in chapters 2 to 12 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 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 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.

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. Stephen Joseph, Managing Director, Aden, Mamalathazhath, Thrippunithura P.O., Ernakulam District – 682301.

Sd/-

P. MARA PANDIYAN, I.A.S.

Member Secretary, SEIAA

&

Addl. Chief Secretary

Environment & Forests Department

Government of Kerala.

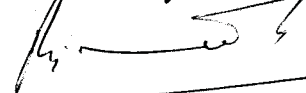
To,

Sri. Stephen Joseph,
Managing Director,
Aden, Mamalathazhath,
Thrippunithura P.O.,
Ernakulam – 682301

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, Ernakulam
4. Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm-24
5. Director, Mining & Geology, Thiruvananthapuram-4.
6. Member Secretary, KPCB, Pattom, Thiruvananthapuram-4
7. The Secretary, Memury Grama Panchayat, Ernakulam
8. Chairman, SEIAA, Kerala
9. Website, 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 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 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) 100m 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.
- (xxxii) 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.
- (xxxiii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xxxiv) 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.
- (xxxv) 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.
- (xxxvi) 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.
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) 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.



[Handwritten Signature]

for Member Secretary
G. RAJEEV
 Administrator
 State Environment Impact Assessment Authority
 Pallimukka, Pettah
 Thiruvananthapuram 695024
 Phone: 0471-2742264