

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: SEIAA- Environmental Clearance for the proposed building stone quarry project in Survey Nos. 276/2, 281/2 B/No. 45 at Anakayam Village, Anakayam Panchayath and Sy. No. 244 at Manjeri Village, Manjeri Muncipality, Eranadu Taluk,, Malappuram District by Sri. Abdul Azeez, Manuging Director, M/s. Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram-676122-Granted-Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY No. 537/SEIAA/EC1/3880/2015 dated, Thiruvananthapuram 11-02-2016

- Read: 1. Application dated 31.07.2014 submitted by Sri. Abdul Azeez, Managing Director, Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram-676122
 - 2. Minutes of the 45th meeting of SEAC held on 11/12-09-2015.
 - 3. Minutes of the 49th meeting of SEAC held on 07/08-12-2015.
 - 4. Minutes of the 48th meeting of SEIAA held on 23-01-2016.

Environmental Clearance No. 20/2016

Sri. Abdul Azeez, Managing Director, Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram (D) vide his application received on 13/08/2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 276/2, 281/2 B/No. 45 at Anakayam Village, Anakayam Panchayath and Sy. No. 244 at Manjeri Village, Manjeri Muncipality, Eranadu Taluk, Malappuram District, Kerala for an area of 2.8549 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50hectares) 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. Other details of the proposal are as follows:

2. BASIC INFORMATION OF THE PROJECT

Basic Details	
Name of the Project	Quarry project of M/s. Manjeri Bricks & Metals Pvt. Ltd.
Survey Numbers	Survey No. 276/2, 281/2, Block 45 of Anakayam Village & Panchayat and Survey No. 244 at Manjeri Village of Manjeri Municipality.
Village	Anakayam Village & Manjeri Village
Tehsil	Ernadu Taluk,
District	Malappuram District
Extent of land in hectors	2.8549 ha.
Is the property forest land/Govt. land/ own land	Private own land
Latitude	11°05'50.78" to 11°'05'42.30"
Longitude	76°08'21.70" to 76°08'15.00"
Distance from the adjacent quarry	 There is one quarry is operating within 500 m. radius. Granite Building Stone Quarry of Sri. Kaladi Muhammed, Kaladi (H), Kallaramandalam. Area: 40.68 ares. Lease No. /Permit No.: CRPS No. 2/2014-15/GR/DOM/M-448/2014.
Details of method of working with phasing of activities, height and width of benches	 The proposed mining operations will be carried out by open cast semi-mechanized method. The height and width of the bench will be maintained at 5.0 m. The mining will be done from top to bottom by slicing of 2.5 m thick. The exploitation of mineral is being done up to 90m MSL in conceptual phase.
Distance of mining area from nearest human settlement	Nearest House = 104 m., NE
Proposed production capacity	1,00,000 MTA
Expected life of mine	About 8 Years
Expected cost of the project	Rs. 2.25 Crores.
Interlinked project (if any)	The quarry is interlinked with a crusher unit existing within the complex. For crusher unit no Environment Clearance is required.
Whether CRZ is applicable	Not applicable
Status of litigation/complaint/cases	No
Permanent or temporary change on land use, land cover or topography	The project site is private owned land. There is expected to be change in the land use as mining area in the core zone. At the end of the mine, the excavated pit will be backfilled and reclaimed and rehabilitated by plantation leaving no void.
Topography of land and elevation	The highest elevation of the lease area is 145 m. MSL and lowest is 95 m MSL. As the proposed area is hilly, the drainage is towards SW & N side.

Vegetation	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 exposed rock with some native trees, climbers, grass, shrubs, herbs etc. However, some of these species will be planted at the end use for eco-restoration.
Nearest water body	Kadalundipuzha, I km., S
	Kadaiundipuzita, 1 km., 5
Change in water bodies	No
due to mining activities	
Proneness to natural hazards	As per BMTPC, Vulnerability Atlas Seismic Zone of India IS: 1893-2002, the proposed area comes under Zone-III, moderate damage risk zone. The proponent stated that the project area is not prone to carthquake, landslide and flooding. There are no incidents of cloudburst and landslide reported so far.
Environmental parameter	rs considered
WATER	Allera .
Total water requirement and 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 & crusher unit and 2 KLD for plantation purposes and will be sourced from storm water pond. The drinking water will be sourced from the open well which will be purified in mini RO plant. It is proposed to collect the storm water into the holding/Siltation Tank by constructing channels all around the foot of the hill.
	The channel will be constructed with intermediate check dams/silt traps to prevent soil erosion. The sizing of the channels will be 1mx 1m.
Facilities for liquid waste treatment	Mining activities may cause adverse impacts due to discharge of domestic wastewater, siltation and soil erosion due to runoff/storm water. Control measures includes: Construction of check dams and collecting channel all around the foot of the hill to prevent soil erosion during monsoon season and also to collect the storm water for various uses.
	The storm water will be used for dust suppression, green belt development etc. All measures will be taken not to disturb the existing drainage pattern adjacent to the other property.
Water conservation measures	 There exist storm water collection pond and desiltation unit of capacity of 4,000 KL in the lowest contour of the plot. The water requirement for sprinkling on sources of duct emission, roads, crusher and for landscaping purposes can be met from the stored rain water in the pond and thereby conserve the fresh.
Sources of generation and facilities for liquid waste treatment	The sewage to a tune of 0.8 KLD will be generated from the mine office will be diverted to the septic tank followed by soak pit.
Water quality meeting	Regular monitoring and analysis will be carried out to meet
requirements	the stipulated standards from time to time.
	1000
Water Regime	Pond & wells
LAND	11.344.244
Access road to the site – Width & Condition	• 7 m. wide, tarred road, NW
Land use change	There will be changes in land use pattern of the area due to mining activities. The following control measures are adopted to minimize the adverse effects:

	 Construction of check dams and collecting channel all around at the foot of the hill to prevent soil erosion during the monsoon season and also to collect the storm water for various use within the mine lease area. Green belt development along the boundary of the lease area. It is proposed to reclaim the pit area and this area will be suitably planted with local species for eco-restoration in all possible means. Proper barricading and monitoring of the water stored area will be taken up to prevent accidents.
Storm water management	 The following measures will be taken to manage the storm water Storm water drains with silt traps will be suitably constructed all along the south and west periphery of the pit area to collect the run-off from the lease area and divert into storm water pond existing within the complex. All measures will be taken not to disturb the existing drainage pattern adjacent to the other property. The storm water collected from the lease area will be utilizes for crusher unit as well as for dust suppression on haul roads, plantation within the premises etc.
Storage of explosives /hazardous substances	Explosive shall be procured by License vender and transported to the site at the time of blasting and used in accordance with Explosive Rules 2008, MSIHC Rules 1989 Mines Act 1952 and MMR 1961 and with necessary permission for blasting from DGMS. The magazines are located within the complex.
Hazardous waste management	Negligible in quantity like used oil which will be disposed to the local recyclers.
Facility for solid waste management	The municipal solid waste generated from the labour quarter will be suitably disposed along with reclamation or back filling.
Top soil, overburden etc.	 It is estimated that around 5,710 m³ of top soil will be generated from the proposed pit, which will be properly stacked and will be utilized for plantation over the reclaimed areas. It is estimated that around 19,984 m³ of overburden is generated which will be utilized in developing internal roads and at the end use the same will be used as soil base for reclamation.
NOISE	
From operation of equipment e.g. engines, ventilation plant, crushers	The major noise generating source from the proposed activity is working machinery, drilling, blasting and plying of vehicles.
Noise pollution control measures	 The following control measures are to be undertaken to bring down the noise levels:- Proper maintenance of machinery, equipments and improvement on design of machines. Use of personal protective devices i.e., earmuffs and earplugs by workers, working in high noise areas. Creation of wide green belt of dense foliage between mine areas and residential colonies. It is proposed that the proposed mine operates only ten hours a day. Conducting periodical medical checkup of all workers for any noise related health problems

	Proper training to personnel to create awareness about adverse noise level effects.
Noise level monitoring	 Periodic air quality monitoring will be carried out in suitable locations in the plant and outside to ensure ambient air quality with in permissible limits and otherwise effective remedial actions will be taken.
AIR	
Likely emissions affecting environment	Mining activities will generate certain quantities of dust during drilling, blasting, loading and transportation operations.
By deposition of	 The following measures will be taken to mitigate the fugitive dust from different operations. Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust. To avoid the dust generation from the drilling operations, wet drilling method will be adopted. Drill machines will be equipped with dust collectors. Use of appropriate explosives for blasting and avoiding overcharging of blast holes. Controlled blasting techniques will be adopted. Watering of haul road and other road at regular intervals.
pollutants emitted to air into the land or into water	 Provision of dust filters/ mask to workers working at highly dust prone and affected areas. Provision of green belt all along the periphery of the lease area. Periodical monitoring of ambient air quality in and around the lease area. The extracted mineral will be transported from the quarry to the end user by adopting following measures so as to minimize dust emissions.
	 In case of long transportation the trucks after loading will be covered with tarpaulin sheets. Speed of the vehicles will be maintained within the prescribed limits. Trucks will not be over loaded and will be maintained to the
	 body level. The unit is based on latest green technology and the entire unit is closed loop with proper control strategies. The unit is well equipped with dust extraction system like
Air pollution control measures in crusher unit	bag filters at all traverse points to control the duct emissions. Closed conveyor systems with water sprinkling arrangements are adopted.
	Sufficient water is used to maintain the moisture content to control the fluiting emissions throughout the system.
Air quality monitoring	control the fugitive emissions throughout the system. Planned air quality monitoring at suitable locations in the plant and outside location for proper effective remedial actions.
Blast vibrations and control measures	 Controlled blasting technique will be adopted Maximum charge/delay will not be more than 10 kg so as to limit the PPV values to 10mm/sec. Optimum delay sequence and stem to column ratio will be maintained to minimize the fly rock distance and ground vibration intensity. Blasting on the distance of the nearest sensitive areas from the epicentre of the blast, charge weight will be altered to

	 meet the stipulated standards. Design of optimum blast hole geometry considering bench height, diameter of whole, type of explosive nature of rock, level of fragmentation required etc. Divide total charge/ blast in several parts so as to keep minimum explosive/delay <i>i.e.</i>, use of millisecond delay detonators & relays. Avoid concentration of explosive by using deck charging Avoiding blasting in unfavourable weather conditions.
ENERGY	
Energy requirement	• The total power requirement will be 75 kW for compressions, which will be drawn from diesel engine.
BIODIVERSITY	
Presence of any endangered species or red listed category	 There is no endangered, endemic or scheduled flora species existing at proposed mine lease area. There is no schedule I species of animals observed within study area as per Wildlife Protection Act 1972 as well as no species is in vulnerable, endangered or threatened category as per IUCN.
Loss of native species and genetic diversity	There will not be loss of some native species and vegetation. However, some of these species will be planted at the end use for eco-restoration.
Eco restoration programmes	 An area equivalent to about 10% of the proposed area is reserved in the area owned by the project proponent outside the [proposed quarry for compensatory mass plantation. The area selected in such that there is enough depth of top soil and OB and the quarrying in this area is not proposed in future. The year wise programme of afforestation for the life of mine, about 2,500 trees will be planted in an area of 2.6949 ha. 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.
SOCIAL ASPECTS	
Proximity to nearest densely populated or build-up area	 Town – Manjeri, 4 km., NW Nearest house – 104 m., NE
CSR related to the project	As a part of corporate social responsibility, it is proposed to spent about Rs. 23,61,860/- (Recurring = Rs. 14,47,500/- + Non Recurring = Rs. 9,14,360/-) for various local development activities in consultation with local village authorities. About Rs. 9 lacs per annum is proposed to be spent for the environment protection programme / measures. The CSR activities for the following sectors: 1. Education 2. Public Health 3. Community Development and also as per Chapter 4.7.
GENERAL	
Details of Authorised Signatory & Address for correspondence)	Mr. Abdul Azeez, Managing Director, M/s Manjeri Bricks & Metals Pvt. Ltd. Vettakode, Pullanchery P.O., Manjeri, Malappuram District, Kerala-676122.

Details of NABET approved EIA consultant Organisation

M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 54 us per MoEF & CC list of Accredited Consultant Organization)

Head Office :-

A1-198, Janak Puri, New Delhi.

Branch Office:-

C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.

3. The proposal was appraised in the 45th meeting of SEAC held 11th and 12th September 2015 as Agenda Item No. 45.04. The Committee observed that the mining plan is not in accordance with KMMC Rules 2015. The Committee defer the item for revised mining plan as per the existing rule and for field inspection.

4. The sub-committee of SEAC visited the quarry project on 2 October 2015. The proponent was present at the site. The observations are:

1. The quarry site is well maintained with sign boards.

- 2. The rainwater is stored in a pond and is used for crushers and inhouse usage. The water collected in the pond is preserved satisfactorily.
- 3. Benches have been formed around the quarry
- 4. Another quarry exists at a distance of 500 m
- 5. No house or settlement is seen nearby

The proponent should be directed to submit revised mining plan as per the existing rule the mining activity can be recommended after stipulating the general conditions.

5. On submission of revised mining plan and Letter of Intent as per KMMC rule 2015 by the proponent as directed by 45th SEAC, the proposal was considered by 49th meeting held on 7th and 8th December 2015, the committee 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 *recommend* for issuance of Environmental Clearance for mining with the general conditions stipulated for mining projects.

6. The proposal was considered by SEIAA in its 48th meeting held on 23-01-2016. The Authority examined the recommendations of SEAC and decided to accept the recommendation and to issue E. C subject to production of no-cluster certificate from the Mining & Geology Department.

7. Validity may be five years subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry. Environmental Clearance is therefore granted to the quarry project Sri. Abdul Azeez, Managing Director, Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram District, Kerala subject to the general conditions annexed hereto.

8. 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 of the Environment Management Plan 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 3 of Mining plan (Mining), Chapter 2.6.4 (EMP) of the PFR, Chapter 2.6.6 of PFR (Blasting), Chapter 4.3.9 of PFR (Disaster Management), 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 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 or genuine complaints from residents within the security area of the quarry.

- 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.
 - Necessary assistance for entry and inspection should be provided by the i) project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
 - Instances of violation if any shall be reported to the District collector, ii) Malappuram to take legal action under the Environment (Protection) Act
- 11. The given address for correspondence with the authorised signatory of the project is Sri. Abdul Azeez, Managing Director, Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram- 676122.

P. Mara Pandiyan, I.A.S., Member Secretary (SEIAA)

Additional Chief Secretary to Government Environment & Forest Department Government of Kerala.

To.

Sri. Abdul Azeez, Managing Director, Manjeri Bricks and Metals Pvt. Ltd., Vettakode, Pullancherry P.O., Manjeri, Malappuram- 676122.

Copy to:

- 1. Molif Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E& F Wing, II block, Koramangala, Bangalore-560034.
- 2. Principal Secretary to Government, Environment Department.
- 3. The District Collector, Malappuram
- 4. The Director, Department of Environment & Climate Change.
- 5. The Director, Mining and Geology Department, Kesavadasapuram, Thiruvananthapuram-4
- 6. Village Officer, Manjeri Village Office, Manjeri, ErnaduTaluk, Malappuram-676122
- 7. The Secretary, Anakayam Grama Panchayat, Anakayam P.O., Ernadu Taluk, Malappuram, Kerala -676509.
- 8. Chairman, SEIAA
- 9. Website

10. Stock File

11. O/C.

Forwarded/ By Order

G. Rajeev, Administrator.

G. RAJEEV

Administrator

State Environment Impact Assessment Authority Pallimukku, Pettah Thiruvananthapuram-695024

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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.
- (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 on consent given by any other authority for the same project.

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Forwarded/ By order

Administrator,

Administrator

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