



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 Pandiyan, I.A.S., Member Secretary.

Sub: SEIAA- Environmental clearance for the quarry project in Sy.No. 97/1(p), 97/2(p) & 97/4(p) at Malayattoor Village, Malayattoor Neeleswaram Grama Panchayath, Aluva Taluk, Ernakulam District, Kerala by Sri. Manoj Antony for M/s. Surya Rock Product by - Sri. Manoj Antony -Granted- Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**No. 821/SEIAA/EC3/3881/2014****Dated, Thiruvananthapuram 01.06-2016**

- Read:-**
1. Application dated 08.07.2015 submitted by Sri. Manoj Antony, Managing Partner of M/s. Surya Rock Products, Puthen House, Neeleswaram Post., Kalady Village, Aluva Taluk, Ernakulam
 2. Minutes of the 48th meeting of SEAC held on 06/07 -11-2015.
 3. Minutes of the 53rd meeting of SEAC held on 25/26-02-2016.
 4. Minutes of the 52nd meeting of SEIAA held on 29-04-2016.

Environmental Clearance No 92 /2016.

Sri. Manoj Antony, Managing Partner of M/s. Surya Rock Products, Puthen House, Neeleswaram Post., Kalady Village, Aluva Taluk, Ernakulam vide his application received on 03.07.2015, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 97/1(p), 97/2(p) & 97/4(p) at Malayattoor Village, Malayattoor Neeleswaram Grama Panchayath, Aluva Taluk, Ernakulam District, Kerala for an area of 1.8814 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

Basic information

Name of project		Granite Building Stone Quarry of M/s. Surya Rock Products
Category/Subcategory & Schedule		Schedule No. – 1(a) Category – B, Sub-category – B2
Location Sy no/ district, Taluk/ village etc.		Survey No's: 97/1(P), 97/2(P) & 97/4(P) Malayattoor village Aluva Taluk Ernakulam District Kerala state
GPS co-ordinates		N - 10°12'17.331" to 10°12'24.036" E - 76°31'17.786" to 76°31'24.431"
Mining project	Extent of area (in hectares)	1.8814 Ha
	Minimum and maximum height of excavation (MSL)	+55m AMSL to +85m AMSL sloping from North East to South West.

<i>Life of mine proposed</i>	5 years	
<i>Ultimate depth of mining (in MSL)</i>	Upto +15m AMSL (Minimum & Maximum depth is 40m & 70m respectively)	
<i>Distance from the adjacent quarry</i>	More than 30 m	
<i>Capacity of production</i>	375 Tonne per day (TPD)	
<i>Details of project cost</i>	This is an existing project and necessary funding is already made	
<i>Financial statement including funding source and details of insurance</i>	Necessary funding already made	
<i>CRZ recommendations</i>	The proposed project does not require approval or clearances under CRZ Notification (1991), The Forest Conservation Act (1980) and Wild Life Protection Act (1972). since there is no declared Biosphere, Wild Life Sanctuaries, or Tiger sanctuary or migrating corridor or Coastal zone etc.	
<i>Forest clearances</i>		
<i>Does it attract violation proceedings</i>	Action initiated for obtaining EC	
<i>Env't Mgmt plan/ Eco restoration plan (brief details)</i>	AIR POLLUTION	MANAGEMENT PLAN: <ul style="list-style-type: none"> ➤ Regular wetting of transport road using water tanker ➤ Avoiding overloading of tippers ➤ Covering of loaded tippers with tarpaulins during transportation ➤ Development of green belt / barriers wherever possible
	WATER POLLUTION	<ul style="list-style-type: none"> ➤ Sewage generated will be properly discharged into septic tanks with soak pits. ➤ The rain water falling in the quarry will be harvested up to +55m AMSL. This pit will act as a settling pond to prevent solids escaping along with discharge, before outlet etc. ➤ It is suggested to construct a settling pond in the southern corner of the lease area around +55m AMSL so that water can be diverted into this pond. ➤ Clear supernatant water after settling can be let out of this pond after passing through settling traps.
	NOISE	<ul style="list-style-type: none"> ➤ Noise levels should be abated through good preventive maintenance of machineries, green belt creation, provision of ear muffs to workers, etc., ➤ Sound proof operator's cabin for equipments like dumpers, shovel, tippers, etc., ➤ Ground vibration to be controlled through optimum design for burden & spacing, inclined drilling practice, using ordinary electric milli second delay detonators, in combination with detonating fuse etc.,

	Solid waste Management	<ul style="list-style-type: none"> ➤ The total waste to be generated from the mining area is expected to be 2660m³ (6649Tonnes) comprising about 469m³ of top soil and 2190 m³ over burden / waste. ➤ The top soil will be used for reclamation and afforestation purpose. Remaining waste will be used for road formation, filling of low lying areas and creation of bund around the mine periphery. The other waste if any can be dumped in proponents own land nearby or can be utilized for filling of low lying areas.
	Eco restoration	<ul style="list-style-type: none"> ➤ In the mine closure stage, water body will be formed up to +55m in the mined void till the floor level of +15m AMSL. Ultimately, out of 1.3957 Ha of mined out area, 1.1673 ha will be remain as water body whereas the remaining 0.2284Ha above this level will be reclaimed with bench plantation. The mined area will be properly fenced all around.

ABOUT THE PROJECT

WATER

Water requirement & sources	<p>The water requirement for the mining operation is as follows:</p> <p>For domestic & sanitary needs 1.0 KLD</p> <p>For dust suppression and Plantation etc. } - 5.0 KLD</p> <p>Total -6.0 KLD</p> <p>The entire water requirement for industrial activities such as Dust suppression and greenbelt development can be met from the rain water harvested in the mine sump pond and for drinking will be from bore well.</p>
RWH units proposed	<p>The rain water falling in the quarry will be harvested up to +55m AMSL. This pit will act as a settling pond to prevent solids escaping along with discharge, before outlet, etc.</p> <p>Besides, it is also suggested to construct settling pond in southern corner of the lease area around +55m AMSL so that water can be diverted into this pond. Supernatant clear water will be let out of the area after passing through silt traps. Most of the mine water will be used for green belt, dust suppression, etc.</p>
Facilities for liquid waste treatment	<p>The only effluent arising from project is domestic waste to the maximum of about 0.4 KLD. This is disposed into septic tanks with soak pits.</p>
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	Not Applicable
Water quality meeting requirements	<p>The rain water falling in the quarry will be harvested up to +55 m AMSL. This pit will act as a settling pond on the South side of the lease area to prevent solids escaping along with discharge, before outlet etc. Supernatant clear water will be let out of the</p>

	area after passing through silt traps.
Does it have provisions for use of recycled water	Other than using of mine sump water no other recycling envisaged.
LAND	
Proximity to forest lands	NIL stated as proponent
Is the land assigned for any other special purpose; Give details	NIL
Access road to the site –Width & Condition	The project site is approachable from Malayattoor on Malayattoor-Angamali Road. The nearest railway station is Angamali Railway Station which is about 20 km on the South west of the lease area and the nearest airport is Cochin International airport at about 24 km - SW away.
Storage of explosives /hazardous substances	License to store and use Explosive obtained from Jt. Chief Controller of Explosives, Chennai vide License No: E/SC/KL/22/557(E23069) dated on 19.02.2013, valid up to 31.03.2017.
Facility for solid waste mgmt	The total waste to be generated from the mine area is expected to be 2660 m ³ comprising 469m ³ of top soil and 2190 m ³ of overburden / waste. Topsoil shall be used for afforestation purpose. Remaining waste will be used for road formation, filling of low lying areas and creation of bund around the mine periphery. The other waste if any can be dumped in proponents own land nearby or can be utilized for filling of low lying areas or other commercial purpose outside the lease as per norms. Liquid domestic effluents are minimal and let out into septic tank and soak pits.
Topographic features/ slope	In the proposed lease area the granite deposits occur in a sloping terrain with the RL in the range of +55m AMSL to +85m AMSL sloping from North East to South West.
Proneness of the area for landslides	Granite occur here as a hard massive rock which can withstand steep slopes. Hence not prone to landslides.
Significant land disturbance resulting in erosion, subsidence & instability	This is an opencast mine hence there will not be any subsidence. The bench slopes will be maintained as per DGMS rules and requirement and hence there cannot be any instable slopes. There will be land disturbance due to mining activity.
Top soil, overburden etc.	Total quantity – 2660 m ³ Top soil – 469 m ³ Overburden – 2190 m ³
AIR	
Air quality meeting requirements	To conform to rules
Noise level meeting requirements	To conform to rules
Likely emissions affecting environment	There will be some dust emission due to mining and allied activities which will be controlled by following measures like: <ul style="list-style-type: none"> • Proper maintenance of HEMM • Frequent water sprinkling • Development of greenbelt • Covering of transport material with tarpaulin cover etc.,
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 and will be met from state grid. The power connection for office use is available near to the site.

Energy sources	KSEB
Extent of usage of alternative energy resources	Not applicable
BIODIVERSITY	
Presence of any endangered species or red listed category	Nil as stated by proponent
Loss of native species and genetic diversity	Eco-restoration of native species and genetic biodiversity should be ensured.
Likely displacement of fauna	No as stated by proponent.
Any introduction of alien / invasive species	Nil as stated by proponent
SOCIAL ASPECTS	
Proximity to nearest habitation	More than 101 m away
CSR components suggested For future CSR activities, need based assessment for the local community to the tune of Rs. 15 lakhs is made. Every year budgetary provision of Rs. 3.0 lakhs per year is provided.	
GENERAL	
Biomedical waste management	Not Applicable
E-waste management	Not Applicable
Sufficiency of parking spaces/ traffic management	The entire quarried stone from this lease is directly despatched to own crusher unit located in Naduvattom.
Litigation/ court cases, if any, against the project (Provide details)	No litigation is pending against the project as reported
SEAC meetings/ ADDITIONAL CLARIFICATIONS	
Details of Authorised Signatory	Sri. Manoj Antony Managing Partner of M/s. Surya Rock Products, Puthen House, Neeleswaram Post., Kalady Village, Aluva Taluk, Ernakulam District, Kerala - 683574. Mobile: 9847032454
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

2. The proposal was considered in the 48th SEAC meeting held on 6th and 7th November 2015. The committee defer the item for Field Inspection to assess the ultimate depth of quarrying and the production of following documents/details;

1. The detailed route map.
2. A more realistic need based CSR proposal.

Field visit to the quarry site was carried out on 02.12.2015 by the sub-committee of SEAC comprising Dr. E.A. Jayson, Dr. K.G. Padmakumar and Shri. P. Sreekumaran Nair. The Proponent was also present at the site.

The details of the Field Inspection Report are given below:

"The project is an active quarry, located in MalayattoorNeeleswaramGramaPanchayath and the approach is through Karakkad Forest check post. The proposed quarry area falling in own land lies on a hill ridge with moderate to steep slopes to the south. The outer boundaries of the lease must be delineated with pillars and the GPS reading of the pillar should be provided in a painted board. Steep cuttings of older working faces are being altered to form benches. The storm water from the slopes flows down as overland flow without any channelisation. Dwelling units are not seen within 100 m. The proponent has provided limited accommodation and canteen facilities. Blasting must be restricted to two times a day and protective fencing must be provided along the borders of the quarry. Mine manager was not present at the time of visit to the quarry and magazine is reported to be 6 km away from the quarry.

Based on an overall evaluation of the site, following points may be considered:

- 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 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 condition by the proponent.*
- 5. The blasting time must be displayed and strictly adhered to. 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. Tree cover seen all around the quarry must be maintained till the entire life of quarry.*

Other items from general condition and CSR may be added".

3. On the receipt of the details called for as submitted by proponent. The proposal was placed before 53rd SEAC for appraisal. The Committee after examining the mining plan, prefeasibility report, field inspection report and all other documents submitted the Committee found that the quarry has been in operation illegally as observed in the Field Inspection Report. Hence, the Committee decided to recommend for issuance of EC with the following specific conditions put forward by subcommittee in field inspection report.

- 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 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 condition by the proponent.*
- 5. The blasting time must be displayed and strictly adhered to. 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. Tree cover seen all around the quarry must be maintained till the entire life of quarry.*

4. The SEIAA considered the recommendation 1 in its 52 nd meeting held on 29-04-2016 and decided to grant E.C subject to specific condition recommended by 53rd SEAC in para 3 and general conditions for mining projects.

5. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Quarry project in survey No. 97/1(p), 97/2(p) & 97/4(p) at Malayattoor Village, Malayattoor Neeleswaram Grama Panchayath, Aluva Taluk, Ernakulam District for an area of 1.8814 hectares, subject to the specific conditions stipulated in para 3, all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I and other documents submitted to SEIAA , the mitigation measures proposed in the table in para 1 above. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining, appended hereto will be applicable and have to be strictly adhered to.

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 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 4 of Mining plan (Mining), Chapter 11 (EMP) and Chapter 5 (Blasting) 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.

7. Validity will 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 of Sri. Manoj Antony, Managing Partner of M/s. Surya Rock Products, Puthen House, Neeleswaram Post., Kalady Village, Aluva Taluk, Ernakulam subject to all the above conditions.

8. Compliance of the conditions herein will be monitored by the Authority or its officers 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.
- iii) The given address for correspondence with the authorised signatory of the project is Sri. Manoj Antony, Managing Partner of M/s. Surya Rock Products, Puthen House, Neeleswaram Post., Kalady Village, Aluva Taluk, Ernakulam.

Sd/

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

&

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

To,

Sri. Manoj Antony,
Managing Partner of M/s. Surya Rock Products,
Puthen House, Neeleswaram Post.,
Aluva Taluk, Ernakulam.

Copy to:

1. MoEF 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, Ernakulam..
4. The Director, Mining and Geology Department, Kesavadasapuram, Thiruvananthapuram-4
5. The Secretary, Malayattoor Neeleswaram Grama Panchayath, Ernakulam
6. Chairman, SEIAA
7. E.C File
8. Stock File
9. O/C.



Forwarded/ By order

Administrator
SEIAA

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

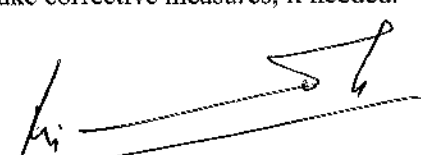
GENERAL CONDITIONS (for mining projects)

1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. 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.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. 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, if no other specific condition on reclamation of pit is stipulated in the E.C.
8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
9. **The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.**
10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/ control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention in the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m
20. No mining operations should be carried out at places having a slope greater than 45°.
21. 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.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. 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.
29. 100 m buffer distance should be maintained from forest boundaries.

30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
31. 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.
32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.
33. 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.
34. 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.
35. 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 State Environment Impact Assessment Authority (SEIAA) office 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.
36. 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.
37. 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 State Environment Impact Assessment Authority (SEIAA) office.
38. 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
39. 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.
40. No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.
41. The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.
42. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.
43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.
44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine

working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul Road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
49. The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
50. The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.
51. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
52. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
54. 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.
55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.
56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.
57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'
59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
60. Regular monitoring of flow rates and water quality up stream and down stream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.
61. Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.


Member Secretary, SEIAA Kerala



