



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Kerala)

To,

The Owner

V. SUDHAKARAN

Mr. V. Sudhakarran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom
P.O., Thiruvananthapuram, Kerala. -695020

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the SEIAA vide proposal number
SIA/KL/MIN/155712/2020 dated 22 Jun 2020. The particulars of the environmental
clearance granted to the project are as below.

- | | |
|---|--|
| 1. EC Identification No. | EC23B001KL155720 |
| 2. File No. | 1688/EC1/2020/SEIAA |
| 3. Project Type | New |
| 4. Category | B2 |
| 5. Project/Activity including
Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Building Stone Mine (Quarry, Minor
Mineral Mining) project of Mr. V.
Sudhakaran at Re Survey Nos. 270/1, 2,
3, 4, 4-1, 5, 5-1, 5-2, 5-3, 5-4, 5-18, 5-19,
12,12-1, 12-2, 14, 15, 15-1, 16, 17 of Pal |
| 7. Name of Company/Organization | V. SUDHAKARAN |
| 8. Location of Project | Kerala |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

Date: 08/02/2023

(e-signed)
Dr. Venu V IAS
Member Secretary
SEIAA - (Kerala)

*Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH. Please quote identification
number in all future correspondence.*

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PROCEEDINGS OF THE STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY – KERALA, THIRUVANANTHAPURAM

*(Present : Dr.H.Nagesh Prabhu IFS (Retd), Chairman, Shri.K.Krishna Panicker,
Member, Dr.V.Venu IAS, Member Secretary)*

**Sub: SEIAA - Environmental Clearance for the Granite Building Stone Quarry
of Sri. V. Sudhakaran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom
P.O., Thiruvananthapuram – 695020 - Granted – Orders issued.**

State Level Environment Impact Assessment Authority, Kerala

Proposal No. SIA/KL/MIN/155712/2020

File No. 1688/EC1/2020/SEIAA

- Ref: 1. Application from Sri. V. Sudhakaran received on 22.06.2020
2. Minutes of the 135th SEAC meeting held on 07th to 09th & 14th & 17th December, 2022.
3. Minutes of the 122nd SEIAA meeting held on 7th January 2023
4. G.O(Rt.) No.29/2019/Env dt.12.04.2019.

ENVIRONMENTAL CLEARANCE NO. 28/Q/2023

Sri. V. Sudhakaran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom P.O., Thiruvananthapuram – 695020, submitted an application for Environmental Clearance via PARIVESH on 22.06.2020, for the Granite Building Stone Quarry for an area of 1.7230 Ha in Block No. 4, Re Survey Nos. 270/1, 2, 3, 4, 4-1, 5, 5-1, 5-2, 5-3, 5-4, 5-18, 5-19, 12,12-1, 12-2, 14, 15, 15-1, 16, 17 of Pallichal Village, Neyyattinkara Taluk, Thiruvananthapuram, Kerala. The project details are as follows:

SL.No.	Particulars	Details
1	Name of the Project	Granite Building Stone Quarry Project of Sri. V. Sudhakaran
2	Proposed Activity	Mining of Granite Building Stone Quarry
3	Name of the Sector & Schedule No. (in the EIA Notification, 2006)	Non Coal Mining, Activity 1(a), Category B2
4	Name & Address of the Project Proponent	Sri. V. Sudhakaran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom P.O., Thiruvananthapuram – 695020
5	Project Location	
	a) Block No.	4
	b) Re - Survey Nos:	270/1, 2, 3, 4, 4-1, 5, 5-1, 5-2, 5-3, 5-4, 5-18, 5-19, 12,12-1, 12-2, 14, 15, 15-1, 16, 17
	c) Village	Pallichal
	d) Taluk	Neyyattinkara
	e) District	Thiruvananthapuram
6	Geo Co-ordinates	Latitude 08°27'45.97" to 08°27'50.63" Longitude 77°01'29.06" to 77°01'36.90"
7	Extent (in Hectare)	1.7230
8	Project Cost	4.34 Crore
9	Proposed Capacity	51,000 MTA
10	Date of Field Inspection	06.07.2021

CER Details

Year wise expenditure of CER Activities							
		Capital cost in Rs.		Maintenance cost in Rs.			
Sl.No	Activity	1 st	2 nd	3 rd	4 th	5 th	Total
1	Solar Street lights	20000×5 =1,00,000	20000×5 =1,00,000	10,000	10,000	20,000	2,40,000
2	Solar Water heater	50000×1 =50,000	50000×1 =50,000		10,000	10,000	1,20,000
3	Development of Footpath		3,50,000	10,000	10,000	10,000	3,80,000
4	Skill development	2,50,000			5,000	5,000	2,60,000
	Total	4,00,000	5,00,000	20,000	35,000	45,000	10,00,000

2. In the 135th SEAC meeting, the Committee examined the proposal, discussed the field inspection report and verified the additional documents submitted. The proposal is to mine granite building stone from an area of 1.723 Ha of land with production rate of 51,000 TPA for a mine life of 10 years. The depth to the water table as per the application is 5m below ground level and the lowest ground level in the proposed area is 45m above MSL. The survey map submitted by the Proponent on 30.10.2020 and 25.4.2022 in response to repeated directions were not legible. A legible survey map was submitted only on 12.12.2022. The Committee in its 129th meeting observed that the proposed area is in the Mookkunnimala region, where the environmental fragility is a serious concern due to haphazard mining in the past. There are defence installations in the area and executive and judicial interventions with respect to permission for mining. Therefore, the Committee sought clarification from the Legal Officer, SEIAA and the District Administration, Thiruvananthapuram regarding legal issues and prohibition for mining/quarrying, if any. The Committee in its 134th meeting perused the Legal Opinion and Report from the District Collector. Based on this, the Committee observed that there is no prohibition on mining in the proposed survey numbers and the Air Force Station at Mukkunnimala is located 1.5km from the proposed site. As per

the field inspection report, there are 27 houses within 200m radius, the nearest being at 88m. As per the Survey Map, there is a Crusher at 16.1m and a house at a distance less than 50m (Exact distance to the building is not marked in the map). As per precautionary principle, it is not desirable to have such structures very close to the mines considering the impact due to the blasting, increase in vibration and noise levels, escalation of pollution load, terrain fragility etc. Therefore, the Committee has not been favourable to have any built structures within 50m distance of the quarries where mining is done by blasting. Accordingly, the Committee has been recommending the distance norm of 50m between the mine and built structures as stipulated in KMMCR, 2017, amended as per SRO No.346/2017 dated 22.6.2017 and extending the norm to structures such as crusher and buildings in addition to residential houses. The Committee was also not in favour of exempting the distance norm for own leased building as per the circular issued by the State Pollution Control Board dated 25.11.2021. However, in the present case, the proponent has not been notified about extending the norm in the case of crusher at any stage of processing of his application. In the circumstance, the Committee felt it desirable to recommend environmental clearance to the project subject to the readiness of the Proponent to relocate the crusher to comply with the distance norm or maintain a buffer of 50m between the crusher and active boundary of the mine. Subject to this, the Committee decided to recommend environmental clearance for the project with proposed mine life of 10 years with certain specific conditions, in addition to the general conditions.

3. In the 122nd SEIAA meeting, the Authority decided to issue Environmental Clearance initially for a period of 5 years, for the quantity of 417860 MT and then to extend the EC period to cover the project life of 9 years, from the date of issuance of the original EC, subject to the review by SEAC at the end of five years, to verify whether the Project Proponent has violated any of the EC conditions and thereby caused any damage to the Environment in the project region by violating EC conditions.

The EC is subject to General Conditions and the following Additional Specific Conditions.

1. *The Project Proponent shall carry out quarrying as per the approved Mining Plan and the Specific Conditions mentioned hereafter. The Project Proponent should strictly follow the Kerala Minor Mineral Concession Rules 2015 and amendments*

thereby.

2. *The depth of mining is limited to 40m above MSL instead of 25m above MSL considering the depth to the groundwater table and the life of mine shall be 9 years. Appropriate modification in the mine plan shall be made under authentication from the Mining & Geology Department.*
3. *The EC shall be valid from the date of execution of permit/lease from the Department of Mining and Geology. The copy of the lease order should be provided to the SEIAA before commencing the mining activity.*
4. *The EC issued will be subject to a review by SEAC after 5 years through field verification to ensure that mining is carried out sustainably as per the EC conditions.*
5. ***The District Geologist shall issue lease/permit only after getting a recommendation from the Village Officer that the quarry can be permitted in the proposed Survey Numbers.***
6. ***The Village Officer should confirm the status of the land and the panchayat license shall be issued only after confirming quarrying can be permitted in the proposed Survey Numbers.***
7. *Project Proponent shall relocate the crusher to comply with the distance norm or maintain a buffer of 50m between the crusher and active boundary of the mine before commencing the mine operation. An affidavit in respect of the same shall be produced before commencing the mining operations.*
8. *A temporary wall of height 2.5m shall be erected at the boundary connecting BP6-BP7-BP8-BP9-BP10.*
9. *Impact vibration due to blasting shall be monitored at the built structures up to 100m in terms of peak particle velocity and amplitude for maximum charge per delay and the result should be submitted along with HYCR.*
10. *Green belt shall be developed and nurtured all along the buffer zone and geo-tagged photographs showing the status should be submitted along with HYCR. It should be initiated prior to the commencement of mining.*
11. *Compensatory afforestation shall be done by planting trees, climbers and herbs of local species and geo-tagged photographs showing the status should be submitted along with HYCR. It should be initiated prior to the commencement of mining.*

12. *Drainage management system incorporating garland canal, silt traps, siltation ponds, outflow channel connecting to natural drain shall be in place prior to the commencement of mining.*
13. *Garland canal, silt traps, siltation ponds and outflow channel shall be desilted and cleaned periodically to sustain the carrying capacity and geo-tagged photographs of the process should be submitted along with HYCR.*
14. *The recurring expenditure required for implementation of EMP and CER is earmarked only up to 5th year. It shall be extended to the entire life of mine up to the completion of mine closure plan.*
15. *The overburden dumping site shall be protected with gabion walls.*
16. *Transportation of mined material shall not be done during the peak hours in the forenoon (8.00am to 10.00am) and afternoon (3.30pm to 5 pm).*
17. *The haulage road shall be maintained well and dust-free with sprinkling arrangement.*
18. *Adequate sanitation, waste management, and rest room facilities shall be provided to the workers.*
19. *Adequate energy conservation measures proposed shall be implemented including solar power installations for street lights and office.*
20. *The Environment Management Cell (EMC) shall include an Environment expert and the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR.*
21. *Blasting mats should be used during rock blasting to contain the blast, prevent fly rocks and suppress dust.*
22. *In the interest of residential buildings and other structures located at a distance of 51-200 m radius from the quarry site, the Project Proponent should attend the following:*
 - *An impact vibration study has to be carried out through a reputed agency and the Impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay within 3 months of commencing quarry operations and included in the Half Yearly Compliance Report. This study must be monitored by a committee which includes concerned ward*

member of Grama Panchayat and a representative of residents within 200 mts radius. The corrective measures have to be taken to minimize the vibration effect if any as suggested by the agency engaged for the study and the monitoring committee.

- Priority should be given to the needs of local residences while implementing CER activities. If the need be the EMP approved shall be modified to accommodate these changes under intimation to SEAC*
- One of the local residents shall be made member of the Environmental management cell and their grievances shall be heard and addressed.*

23. As per OM no F.No.22-65/2017-IA.III dated 30th September 2020, under Corporate Environmental Responsibility (CER) the Project Proponent should implement the Environment Management Plan (EMP)/CER as directed by SEAC during appraisal, covering the issues to address the environmental problems in the project region, from the beginning of the project, indicating both physical and financial targets year wise. The EMP/CER shall be implemented in consultation with Local Self Govt. Institutions. A copy of the approved EMP/CER shall be made available to the concerned Panchayat for information and implementation support. The indicated cost for implementation of CER activities shall be 2% of the project cost.

24. In the wake of occurrence of large scale landslides in the state, as per the information provided by the Department of Mining & Geology, it is directed to use only NONEL (Non Electrical) technology for blasting to reduce the vibration of the ground, which is one of the causative factors that triggers landslides, formation of cracks in the surrounding buildings and disturbance to human and wildlife.

25. As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEF&CC, in obedience to the directions of the Hon'ble Supreme Court the Project Proponent shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.

26. The violation of EC condition may lead to cancellation of EC and action under The Environment (Protection) Act 1986.

4. Environmental Clearance as per the EIA Notification 2006 is hereby accorded for the Granite Building Stone Quarry Project of Sri. V. Sudhakaran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom P.O., Thiruvananthapuram – 695020, for an area of 1.7230 Ha in Block No. 4, Re Survey Nos. 270/1, 2, 3, 4, 4-1, 5, 5-1, 5-2, 5-3, 5-4, 5-18, 5-19, 12,12-1, 12-2, 14, 15, 15-1, 16, 17 of Pallichal Village, Neyyattinkara Taluk, Thiruvananthapuram, Kerala for the project life of 9 years, from the date of issuance of the original EC, for the quantity mentioned in the approved Mining Plan, from the date of execution of valid lease / permit from the Mining & Geology Department subject to the Specific Conditions in Para 3 above, and all the environmental impact mitigation and management measures undertaken by the Project Proponent in the Form I, EMP, PFR and Mining plan submitted to SEIAA. The assurances and clarifications given by the proponent will be deemed to be a part of this Proceedings as if incorporated herein. Also the General Conditions for projects stipulated for mining (items 1 to 57), mentioned below will be applicable and have to be strictly adhered to.

5. The Environmental 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. The above undertakings and conditions and the undertakings in (Mining), (Blasting), (Mines Drainage), (Stacking of Mineral rejects and Disposal of waste), (Environment Management Plan) & (Progressive Mine Closure Plan) of the Mining Plan as submitted will be deemed to be part of this Proceedings as conditions as undertaken by the proponent, as if incorporated herein.

6. Validity of the Environmental Clearance will be initially for a period of Five (5) years from the date of execution of valid mine lease / permit as per SO 1807(E) dated 12.04.2022 of MoEF & CC, subject to earlier review of EC in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry. The validity shall extend to cover Project Life of 9 years, from the date of issuance of original EC, subject to the review by SEAC at the end of every five years are stipulated in para (3).

7. Compliance with the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the Regional Office of the Ministry of Environment, Forest & Climate Change, Govt. of India, Bangalore. 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. Instances of violation if any shall be reported to the District Collector, Thiruvananthapuram

8. The Half Yearly Compliance Report (HYCRs) with name of the project, EC No. and date, the period of submission with its contents, compliance report and environmental monitoring data & covering letter have to be uploaded in the Parivesh Portal as O.M. F.No.IA3-22/1/2022-IA-III(E)-17264 dated 14.06.2022 and the website of the project proponent. Hardcopy of HYCRs shall not be acceptable.

9. The given address for correspondence with the authorised signatory of the project is Sri. V. Sudhakaran, T.C. 54/928, Rohini Sadanam, Melamcode, Nemom P.O., Thiruvananthapuram – 695020.

GENERAL CONDITIONS

1. 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.
2. All the statutory clearances should be obtained, as applicable, by the project proponent from the respective competent authorities including that for blasting and storage of explosives. Copies of all statutory clearances shall be submitted along with First Half Yearly Compliance Report.
3. The project proponent should advertise in news papers that the project has been accorded Environmental Clearance and copies of clearance letters are available in the Office of State Environment Impact Assessment Authority (SEIAA) and on the website of the Authority at www.seiaakerala.in. The advertisement should be in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language. The advertisement should be made within 10 days from the date of receipt of the Environmental Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.

4. The proponent shall send a copy of the EC 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 uploaded on the website of the company.
5. The lease area shall be fenced with barbed wire to a minimum height of 4ft around, before starting mining. All the boundary indicators (boards, markings, etc) shall be conspicuous and maintained at all times.
6. 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 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.
7. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department. Mats to reduce fly rock blasts to a maximum of 10 PPV should be provided.
8. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged stipulated by Explosive Department.
9. Access roads to the quarry shall be black topped to contain dust emissions that may arise during transportation of materials. The transportation of minerals should be done in covered trucks to contain dust emissions.
10. A separate Environmental Management Cell (EMC) with suitable qualified personnel should be set-up under the chairmanship of a Senior Executive, who will report directly to the Head of the Organization. The Cell should have representative of Biodiversity Management Committee of the Panchayath and a representative of NGO, if any active in the area. The EMC should meet at least once in six months and review the activities and minutes should be a part of the compliance report.
11. Quarrying has to be carried out as per approved mining plan with the suggestions from SEAC incorporated and following KMMC rules 2015 and the Amendments thereby.
12. The quarrying operation (blasting) shall be restricted between 7 AM and

5PM

13. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
14. Maximum depth of mining shall be as per the mining plan and as per specific direction of SEAC after field inspection. The maximum depth of mining should not be deeper than the local ground water table. No mining operations should be carried out at places having a slope greater than 45°.
15. The height of any bench shall not exceed five meters and breadth shall not be less than the height.
16. The Project proponent shall ensure that no perennial or intermittent natural water course and/or water resources are 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.
17. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically sensitive and archeologically important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on specific local conditions.
18. The proponent should plant seedlings at least 5 times of the loss of trees that has occurred while clearing the land for the project and follow planting measures as suggested by SEAC. Suitable avenue trees should be planted along the sides of the approach road and internal roads and open parking areas, if any. Preference should be given to endemic native and fruit bearing species. Planting in buffer areas should be taken up beforehand. Proper upkeep and maintenance of planted seedlings shall be ensured by the project proponent.
19. The proponent should ensure that the vegetation in the buffer is retained, maintained and strengthened with additions of native broad leaved plants.
20. Eco-restoration including the closure of mine as per the progressive closure

plan and final closure plan shall be done at the cost of the project proponent. This eco-restoration should follow scientific standards available for restoration, full recovery of the original vegetation and improving the resilience of different ecosystems. Overburden materials should be managed within the site and used for reclamation of mined pit as per mine closure plan / specific conditions.

21. 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 suitable indigenous plant species, if no other specific condition on reclamation of pit is stipulated in the E.C. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.
22. Control measures on noise and vibration prescribed by KSPCB should be implemented. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
23. Periodical monitoring of the vibration at specified location (preferably at a distance of 50 m and 100 m) to be conducted and records kept for inspection. This could also form a part of the compliance reports.
24. Speed of trucks entering or leaving the mine site is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
25. Acoustic enclosures should be 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 standard limit indicated by CPCB/KSPCB.
26. Blasting should be done in a controlled manner using NONEL technique as specified by the regulations of Petroleum and explosive safety organization (GOI) or any other concerned authorized agency. A licensed person should supervise/ control the blasting operations.
27. Measures should be taken for maintaining noise levels below 85 dBA in the work environment.
28. Project proponent should obtain necessary prior permission of the competent authorities for drawing requisite quantity of surface water and ground water

for the project.

29. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly compliance reports to SEIAA.
30. 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, and for green belt development etc. The drains shall be regularly desilted and maintained properly, particularly after monsoon.
31. Regular monitoring of ground water level and quality shall be carried out around the mine area during mining operation. If any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
32. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.
33. 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 the E.C was issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority. In the case of transfer of ECs, the matter shall be intimated and get the approval from the Authority as per the existing norms.
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 top soil, if any, shall be temporarily stored at earmarked place (s) and 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 at 45⁰. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geo textile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.
36. All the mining equipment used in Mining like backhoe loaders and excavators cause pollution and hence shall be serviced regularly & maintained for their efficient functioning and for reducing pollution. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
37. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution checking centre. Washing of all vehicles shall be inside the lease area. .
38. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution such as haul road, loading and unloading points and transfer points and having high levels of PM₁₀ and PM_{2.5}. 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.
39. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement at project site, parking area, on haul roads, loading and unloading and at transport points should be provided and properly maintained.
40. Corporate Environmental Responsibilities (CER) as prescribed by SEIAA/SEAC should be carried out leading to Environmental stability of the Project region. The activities carried out under CER should be a part of the half yearly compliance report. The certificates from the beneficiaries, if the

CER part is completed should also be submitted to the State Environment Impact Assessment Authority (SEIAA) along with year wise expenditure .

41. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc.
42. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
43. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. The report of health surveillance programme should be included in the half yearly compliance reports.
44. The pits in the abandoned quarries and in the mined area shall be used for activities like water harvesting, aqua culture etc. in an eco friendly manner.
45. If Government land is partly or fully used for mining, the area shall be returned at the end of lease period after mine closure with separate demarcation with suitable survey marks.
46. Any accident occurring in the mined out area after the lease period due to negligence in carrying out safety measures and non-closure , will lead to suspension of all EC obtained for mining by the Proponent.
47. In case of transfer of EC the matter shall be intimated and approval from the Authority shall be obtained as per the existing norms.
48. The proponent shall submit Half Yearly Compliance Reports (1st of June & 1st of December) 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 be simultaneously sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment

Authority (SEIAA). The proponent has to submit Environmental statement in form V of Environment (Protection) Rules 1986 to SPCB on 31st March every year.

49. The project authorities should extend full cooperation to the officer (s) from the Regional Office of MOEF & CC located at Bangalore/SEAC/SPCB/CPCB/dept of Mining and Geology, while monitoring compliance of the stipulated conditions, by furnishing the requisite data/information/monitoring reports.
50. 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.
51. 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.
52. The EC given will be withdrawn at any time if the area is declared high hazardous by the SDMA.
53. The Environmental Clearance will be subject to the final order of the courts on any pending litigation related to the land or project, in any court of law.
54. 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.
55. 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.
56. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or any of the above conditions. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.
57. As per regulation no. 106(2) of metalliferous mines regulation under Mine

act, the height of any bench shall not exceed six meters and breadth shall not be less than the height.

Sd/-
Administrator, SEIAA
For Member Secretary, SEIAA

To,

Sri. V. Sudhakaran,
T.C. 54/928,
Rohini Sadanam,
Melamcode,
Nemom P.O.,
Thiruvananthapuram – 695020

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.(through e-mail: rosz.bng-mefcc@gov.in)
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The Director, Directorate of Environment & Climate Change, 4th Floor KSRTC Bus Terminal, Thampanoor, Thiruvananthapuram, Kerala 695001.
4. The District Collector, Thiruvananthapuram
5. The Director, Mining & Geology, Thiruvananthapuram -4.
6. The Member Secretary, Kerala State Pollution Control Board
7. The District Geologist, Thiruvananthapuram
8. The Tahsildhar, Neyyattinkara Taluk, Thiruvananthapuram District
9. The Secretary, Pallichal Panchayath, Thiruvananthapuram District
- 10.The Chairman, SEIAA
- 11.Website.
- 12.S/f
- 13.O/c