

Proceedings of the State Environment Impact Assessment Authority Kerala

Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and Sri. James Varghese, I.A.S., Member Secretary.

Sub: SEIAA- Environmental Clearance for the quarry project in Sy.No. 147/1(P), 155/3(P), at Vazhayoor Village, Kondotty Taluk, Malappuram District by Sri.Mohanan, M.E., M/s Higrip Granites - EC granted - Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 552/SEIAA/KL/4086/2014

Dated, Thiruvananthapuram, 15.07,2017

Ref: 1. Application dated 22/08/2014 from Sri. Mohanan M. E., High Grip Granites, Edakkat House, Karadparamba P.O., Malappuram

- 2. Minutes of the 48th meeting of SEAC held on 6th & 07th November 2015
 3. Minutes of the 55th meeting of SEAC held on 10th 11th & 20th May 2016
- 4. Minutes of the 54th meeting of SEIAA held on 21-6-2016
- 5. Minutes of the 60th meeting of SEAC held on 28th 29th July 2016
- 6. Minutes of the 59th meeting of SEIAA held on 27th September 2016
- 7. Minutes of the 64th Meeting of SEAC held on 16th and 17th November 2016
- 8. Minutes of the 62nd meeting of SEIAA held on 23/12/2016
- 9. Minutes of the 64th Meeting of SEIAA held on 23.02.2017
- 10. Minutes of the 65th meeting of SEIAA held on 22.03.2017.
- 11. Minutes of the 66th meeting of SEIAA held on 07.04.2017
- 12 Affidavit dt.01.07.2017 from Shri.M.E.Mohanan

ENVIRONMENTAL CLEARANCE NO.46/2017

Sri. Mohanan M. E., High Grip Granites, Edakkat House, Karadparamba P.O., Malappuram, Kerala - 673 632 vide his application received on 22/08/2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 147/1(P), 155/2(P), 155/3(P), 154/16(P) and 154/17(P) at Vazhayoor Village, Vazhayoor Panchayath, Ernad/Kondotty Taluk, Malappuram District for an area of 3.6055 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.

Details of the project as furnished by the applicant are as follows;

BASIC INFORMATION OF QUARRY PROJECT PART A

| Name of the Project | High Grip Granite |
|---------------------------------------|------------------------|
| Survey Numbers | 147/1 (pt), 155/3 (pt) |
| · · · · · · · · · · · · · · · · · · · | |

| Village | Vazhayoor |
|---|--|
| Tehsil | Kondotty |
| District | Malappuram |
| Extent of land in hectors | 1.2965 Ha |
| | Private land. |
| Is the property forest land/Govt. land/ own | Private land. |
| land | |
| Latitude | 11 ⁰ 13'13.13" N to 11 ⁰ 13'13.65" N |
| Longitude | 75°54'57.28" E to 76°55'00.91" E |
| Extent of area (in | 1.2965 Ha |
| hectares) | 1.2905 11a |
| Minimum and maximum | Minimum height of excavation-20m MSL, maximum height |
| height of excavation | of excavation-80m MSL |
| (MSL) | |
| Life of mine proposed | 10 years |
| Distance of mining area | 110 m- E |
| from nearest human | |
| settlement | |
| Ultimate depth of mining | 20 M MSL |
| (in MSL) | |
| Distance from the | No quarries within the 500m radius of the quarry site. |
| adjacent quarry | Not applicable |
| Cluster condition (if any) | Not applicable 80,000 MTA |
| Proposed production capacity | 80,000 NTA |
| Expected life of mine | 10 Years |
| Expected cost of the | 5 Crore |
| project | |
| Interlinked project (if | No |
| any) Whether CRZ is | Not Applicable |
| applicable | Tion to the second seco |
| Status of | Nil as informed by the proponent. |
| litigation/complaint/case | |
| s | |
| Permanent or temporary | The mining activity will have localized impact and create |
| change on land use, land | physical change in the existing environment due to the |
| cover or topography | change in the land use. At the end of life of mine, the |
| | excavated pit will be 0.8891Ha, in which 0.7595 Ha will be |
| | reclaimed with stacked dumping and overburden and |
| | rehabilitated by plantation and the remaining part 0.1296 Ha will be used as a water pond. |
| | will be used as a water point. |
| Topography of land and | The topography of the lease area is hilly. The highest |
| elevation | elevation of the lease area is 80 m MSL and lowest is 45 m |
| | MSL |
| Vegetation | Part of the proposed land is already under mining and the |

| | remaining land is sparsely vegetated having topsoil with average thickness of 1.3 m | | | |
|---------------------------------------|---|--|--|--|
| Nearest water body | | | | |
| Change in water bodies | Bharathapuzha-1.7Km-NE | | | |
| | No, Natural drainage will remain unaffected | | | |
| due to mining activities | | | | |
| Proneness to natural | No, quarry area is not susceptible to natural hazard as there | | | |
| hazards | is no history of such incidents | | | |
| Eı | ivironmental parameters considered | | | |
| 777-4 | WATER | | | |
| Water (expected use and | The total water requirement for the proposed project has | | | |
| sources in KLD) (In | been estimated to be around 5KLD. About 1.6KLD is | | | |
| detail) | required for domestic consumption, 2,0 KLD is required for | | | |
| | dust suppression and 1.4 KLD is required for green belt | | | |
| | development. The required water will be met from quarry | | | |
| | water pond & open well. | | | |
| Sources of generation | The domestic effluent to the tune of 0.5 KLD would be | | | |
| and facilities for liquid | generated from the mine office will be treated through septic | | | |
| waste treatment (In | tank & soak pit. | | | |
| detail) | | | | |
| Facilities for liquid waste | Treated through septic tank and soak pit | | | |
| treatment(In detail) | | | | |
| Water quality meeting | Garlanddrains are provided at the quarry top to regulate | | | |
| requirements (In detail) | monsoon water and direct the same to the settling ponds / | | | |
| | quarry pit to contain the quarry wash off and to avoid the | | | |
| | same joining the adjoining surface water bodies / water | | | |
| | courses. To arrest the silt, if any, carried by monsoon run-off | | | |
| | will be contained by the settling pond from where the clear | | | |
| | water will be let out to the natural water courses. | | | |
| Water Regime (In detail) | The main source of water in this region is from groundwater | | | |
| | (open wells and bore wells) and rain water sources. The area | | | |
| | receives abundant rainfall to a tune of about 2348 mm | | | |
| | armually and the ground water table is found to be at a depth | | | |
| · · · · · · · · · · · · · · · · · · · | of about 5 to 11 m below ground level in lateritic terrains | | | |
| | and between 5 m and 10 m below hard rock terrains (CGWD | | | |
| | Report, 2007). The pre to post monsoon fluctuation in the | | | |
| | district varies from place to place. During monsoon period, | | | |
| | the ground water table becomes shallower and reaches a | | | |
| | depth of about 4 m to 6 m below the ground surface (CGWD | | | |
| | Report, 2007). | | | |
| LAND | | | | |
| Access road to the site - | The public road leading to the quarry has a width of about | | | |
| Width & Condition | 6m | | | |
| Proximity to forest lands | No forest land within 10 km radius of the quarry site. | | | |
| Storage of explosives | Explosives will be procured, stored, transported, handled and | | | |
| /hazardous substances (In | used in accordance with Indian Explosive Act 1884 & Rules | | | |
| detail) | thereof, MSIHC Rules 1989, Mines Act, 1952 and | | | |
| | regulations there under. | | | |
| Hazardous waste | Used oil from maintenance of DG sets, HEMM and tippers | | | |
| management | will be handled as per Hazardous Waste (Management | | | |
| | Trazardous Waste (Wanagement | | | |

| | Handling & Tra | ns boundary Movement) Rules, 2008. | | |
|------------------------------------|---|--|--|--|
| Facility for solid waste | Solid waste will be stacked at designated places during the | | | |
| management (In detail) | quarry operations and will be utilized for reclamation work | | | |
| | during mine closure plan. | | | |
| Top soil, overburden etc. | Top soil-9,928 MT | | | |
| (In detail) | Overburden- 33 | ,000 MT | | |
| EnvtMgmt plan/ Eco | | MANAGEMENT PLAN: | | |
| restoration plan (brief | Air Dust released due to quarry activity (Heav | | | |
| details | pollution Earth Movers, Loaders, Rock breaker, etc) w | | | |
| | be suppressed periodically by sprinkling | | | |
| | | water. Water spraying before loading or any | | |
| | | other handling operations for solid containing | | |
| | | fines - to minimize air pollution. Stockpiles of | | |
| | aggregate shall be kept covered | | | |
| | Water Garland drains are provided at the quarry to | | | |
| | pollution regulate monsoon water and direct the | | | |
| | | the settling ponds / quarry pit to contain the | | |
| | | quarry wash off and to avoid the same joining | | |
| | the adjoining surface water bodies / water | | | |
| ; | courses. | | | |
| · | Noise | Plantation will be earried out all along the lease | | |
| | | periphery, which acts as acoustic barrier for | | |
| | | noise transmission. | | |
| ciis. | Solid Waste | Solid waste will be stacked at designated places | | |
| | Managemen | during the quarry operations and will be utilized | | |
| | t 💮 | for reclamation work during mine closure plan. | | |
| | Eco | For eco restoration about 0.7595 Ha will be | | |
| | restoration | reclaimed with stacked dumping and overburden | | |
| | NO. | and rehabilitated by plantation ISE | | |
| Sources of noise | 1 | e maintenance of machineries and vehicles at | | |
| pollution control | 990 90 900 L | and frequent intervals. | | |
| measures(In detail) | 1 | on of green belt around the haul roads and | | |
| measures(in detail) | lease pe | • | | |
| | . ** | nclosure will be provided at source | | |
| | | vill be provided. | | |
| Noise level monitoring | | vill be monitored as per Environmental | | |
| Noise level monitoring (In detail) | Management Pl | • | | |
| (in detail) | | AIR | | |
| Likely emissions | | emission is the main pollutant, which will be | | |
| affecting environment (In | generated from quarry activities and handling operations., | | | |
| detail) | mitigative measures are proposed accordingly in the EMP | | | |
| By deposition of | | merated, which is suppressed by regular water | | |
| pollutants emitted to air | sprinkling on haul roads, quarry benches and surrounding | | | |
| into the land or into | area. | | | |
| water (In detail) | | | | |
| Air quality monitoring | Ambient Air O | uality will be monitored as per Environmental | | |
| (In detail) | Management Plan | | | |
| / | <u> </u> | | | |

| | • | ENERGY | <u>v</u> | | | |
|--|---|--|--|------------------|-----------------|---|
| Energy requirement (In detail) | Energy requirement will be met from KSEB. | | | | | |
| | | BIODIVERS | SITY | | | |
| Presence of any endangered species or red listed category (In detail) | There | are no endange | red or rare specie | es in th | e area. | |
| Loss of native species and genetic diversity (In detail) | native | e species of shr | survey carried or rubs, trees etc. green belt area | these s | shall be pla | |
| Eco restoration programmes (In detail) | For eco restoration about 0.7595 Ha will be reclaimed with stacked dumping and overburden and rehabilitated by plantation | | | | | |
| | | SOCIAL ASP | ECTS | 11 | | |
| Proximity to nearest densely populated or build-up area (In detail) | Vazha | ayoor-1.8 Km-S | W | | | |
| | Sl. No | CSR Activities | Beneficiary | Yea r | Amount | |
| CSR related to the project (In detail) | | Financial assistance to Vazhayoor Panchayath Palliative Care Centre | Vazhayoor Panchayath Palliative Care Centre | Yea rly | 1,00,000 | ļ |
| | 2 | Financial assistance for Toilet Construction | Vazhayoor LP School | 201 6 | 1,00,000 | |
| | | Provide drinking water to local people of Karrad&Vazh ayoor during dry month | Karrad&Vazh ayoor | Yea rly | 3,50,000 .00 | |
| | 4 | Decided to provide scholarship | Vazhayoor LP School | Yea rly | 1,00,000 .00 | |
| | Total | | | 6,50,000 .000 | | |
| | | GENERAI | L | | | |
| Details of Authorised Signatory & Address for correspondence) | M/s H East V | nan M.E(owner) igh Grip Granite azhayoor (po) nattukara (via) | , | | | |

| | Malappuram- 673 633 |
|---|---|
| | Kerala state. |
| | E-mail: highgripgranite@gmail.com |
| | Mobile No. +91-8589055005 |
| Details of NABET approved EIA consultant Organisation | M/s Metamorphosis (NABET approved EIA consultant) NABET/EIA/1215/141 #143, 39 th Main, 4 th Cross, Behind Silk Board, BTM Layout, II Stage, Bangalore-560068 mail@metamorphosis-india.com |

- 2. The proposal was first considered by SEAC in its 48th meeting held on 6th & 7th November 2015. With respect to the intimation of SEAC, the proponent along with the consultant attended the meeting and the consultant made a brief power-point presentation. As per the application, the proponent has sought EC for an area of 3.6055 Ha. But the certified Mining Plan is for 1.2965 only and the proponent informed at the meeting that he requires EC for the area specified in the Mining Plan only. The Committee is of the opinion that the ultimate depth of the quarry should be limited to the 20m AMSL. The Committee deferred the item for field inspection to assess the ground realities and production of following documents/details;
 - 1. Original Cadastral Map showing the Sy. Nos of proposed area and the nearby plots in the same scale.
 - 2. The estimate of overburden and the place to be proposed for storing the same.
 - 3. A more realistic and need based CSR proposal

The Sub-committee of SEAC consisting of Dr.Khaleel Chovva and Dr. P.S. Harikumar visited the quarry project on 27-3-16. The proponent Sri.Mohanan M.E was present at the site. The inspection report is as follows:

"It is an existing large quarry. Crusher unit is also found nearby. Open cast semi mechanized method is practiced. Benching is just started but not regular. The drainage from the quarry is collected in a pit. Vegetation is seen around the quarry which is having status of Least Concern. No houses or settlements are noticed in the nearby area. Can be recommended for issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects. Recommended for issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects

- 1. Benching method should be strictly practiced. The quarry should be continued only after:-
- 2. Proper fencing and sign boards must be fixed all around
- 3. The approach road should be maintained properly. Entry of large vehicles may be restricted.
- 4. The top soil and overburden should be stacked in a designated place on the lower elevation. It must be preserved for the eco-restoration of the quarried area".
- 3. The proposal was again considered in 55th meeting of SEAC held on 10th & 11th May 2016. The Committee appraised the proposal based on Form 1, Pre-feasibility Report and

Mining Plan. On the basis of the feedback from the site inspection by subcommittee members it is observed that the quarry was in operation in violation of the rules. Hence, action against the said violation has to be initiated. The Committee decided to recommended for the issuance of EC on completion of action against violation subject to the following specific conditions in addition to the general conditions.

- 1. Benching conditions should be strictly practiced. It is observed that presently quarrying is carried out without properly following the mining plan and any further quarrying shall be by strictly following benching methods.
- 2. Proper fencing and sign boards must be fixed all around.

The site inspection report revealed that it is an existing quarry; requirement of E.C for quarries having area less than 5 ha was introduced only after 27-02-2012 consequent on the order on that day by the Hon. Supreme Court in Deepak Kumar's case, Thereafter Govt. granted time till 2/2015 to function without E.C in respect of working quarries. Hon: Supreme Court has ordered status quo on 30-10-2015 in SLP. No. 30103/15 filed by Sri. T. K. Thomas. Authority in several such cases has exempted such quarries from violation proceedings if valid lease/permit is there.

- 4. The proposal was placed in the 54th meeting of SEIAA held on 21-6-2016 for appropriate decision on the grant of E.C. The minutes was as follows;
- "The proposal was finally considered in the 55th meeting of SEAC held on 10/11/20-05-2016. The Committee appraised the proposal based on Form 1, Prefeasibility Report and Mining Plan. On the basis of the feedback from the site inspection by subcommittee members it is observed that the quarry was in operation in violation of the rules. Hence, action against the said violation has to be initiated. The Committee recommended for the issuance of EC on completion of action against violation subject to certain specific conditions in addition to the general conditions. The Authority Resolved to refer the case back to SEAC to clarify the rule that has been violated by this working quarry of extent 1.2965 ha only.
- 5. Hence the proposal was considered in the 60th meeting of SEAC held on 28th& 29th July 2016. "The Committee appraised the proposal based on mining plan, prefeasibility report, field inspection report and all other documents submitted. At the time of site inspection the quarry was in operation. SEAC recommended violation proceedings since the quarry was in operation. SEIAA may take appropriate decision regarding initiation of violation proceedings".
- 6. Thereon the proposal was considered in 59th meeting of SEIAA held on 27th September 2016 and decided to refer the case to SEAC to give clear findings on the recommendation made, within one month. Authority also wanted the details of the land holding whether it is on lease or permit, period of lease/permit, commencement thereof to be indicated in the basic details in the agenda notes".
- 7. The proposal was again considered in the 64th Meeting of SEAC held on 16th and 17th November 2016. The proponent submitted the additional clarifications and on verification of the same the Committee found that the land is a private land with permit. As regards the

question of violation, the Committee is of the view that in the light of the Hon'ble High Court judgement on 7.12 15 the functioning of the quarry at the time of inspection was a violation. If there is any specific Supreme Court order permitting such mining, action against violation need not be initiated.

- 8. The proposal was considered by the Authority in its 62nd meeting held on 23.12.2014, 64th meeting held on 23.02.2017 and in its 65th meeting held on 22.03.2017. The Authority decided to confirm whether the quarry was operated even after the Hon'ble Supreme Court verdict. An affidavit to this effect should be obtained and place in the next meeting for a decision.
- 9. The proponent in the meantime, filed a writ petition © 11230 of 2017 for interim relief from the court that the petitioner may be allowed to proceed with quarrying activities as if there is deemed EC, pending disposal of the writ petition with the cost of the proceeding. Now he has submitted an affidavit stating that he had carried out quarrying operation only within the above permit area of 1.25 area till 13.08.2016 up to which he had got quarrying permit from DMG and that he has not carried out any mining activities in that area after 13/08/2016. Therefore there is no need to initiate violation proceedings. So the case may be decided on the recommendations other than for violation proceedings.
- 10. The proposal was considered by the Authority in its 66th meeting held on 07.04.2017. The Authority decided to grant EC subject to the following specific conditions in addition to the general conditions subject to the production of an affidavit that all the general and specific conditions shall be strictly implemented in addition to the conditions suggested by the inspection team. The CSR activities as mentioned in the application should also be implemented.
 - 1. Benching conditions should be strictly practiced. It is observed that presently quarrying is carried out without properly following the mining plan and any further quarrying shall be by strictly following benching methods.
 - 2. Proper fencing and sign boards must be fixed all around.
- Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed stone quarry project of Sri.Mohanan M. E., High Grip Granites, Edakkat House, Karadparamba P.O., Malappuram, Kerala 673 632 in Survey No. 147/1 (p), 155/3(p) at Vazhayoor Village, Kondotty Taluk, Malappuram District, Kerala for an area of 1.2965 hectares, subject to the specific conditions as recommended by SEAC in para 2 & 3 above, 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 these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining (items 1 to 61), appended hereto will be applicable and have to be strictly adhered to.
- 12. 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 the undertakings in Chapter 4 (Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (Stacking of Mineral rejects and Disposal of waste) Chapter 11 (EMP) Chapter 12 (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.

- 13. Validity of the Environmental Clearance will be five years from the date of this clearance, 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.
- 14. Compliance of 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 & 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, Malappuram 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.Mohanan M. E., High Grip Granites, Edakkat House, Karadparamba P.O., Malappuram, Kerala 673 632.

Sd/-JAMES VARGHESE.I.A.S, Member Secretary (SEIAA)

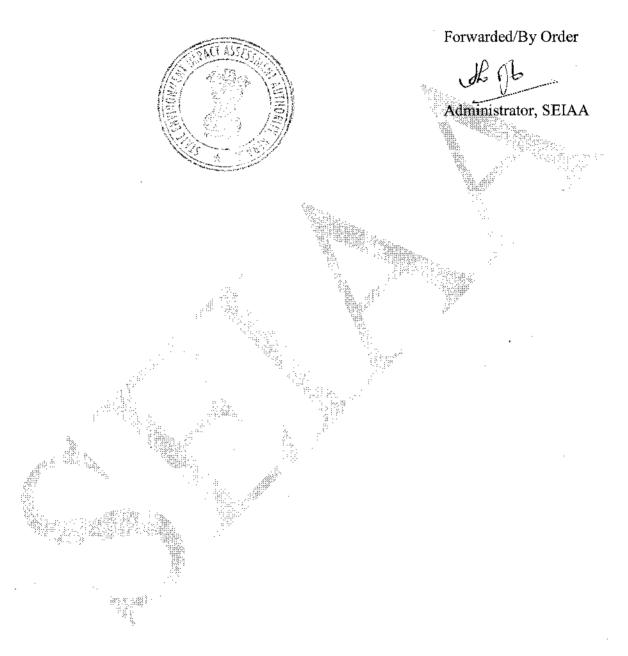
To

Sri. Mohanan M. E., High Grip Granites, Edakkat House, Karadparamba P.O., Malappuram, Kerala – 673 632

Copy to,

- 1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.
- 2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala.
- 3. Director, Mining & Geology, Thiruvananthapuram -4.
- 4. The Member Secretary, Kerala State Pollution Control Board
- 5. The District Collector, Malappuram
- 6. The District Geologist, Malappuram

- 7. Tahsildhar, Kondotty Taluk, Malappuram8. Chairman, SEIAA.
- 9. Website. 10. S/f
- 11. O/c



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.
- 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.
- 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.
- Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
- Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is 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.
- 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 proponentshall 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.
- 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.

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.

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.

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.

The SEIAA may revoke or suspend the order, for non implementation of any of the specific or thisimplementation 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.

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.

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.

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.

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 reports to SEIAA.

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.



For Member Secretary, SEIAA Kerala

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