

Proceedings of the State Environment Impact Assessment Authority Kerala

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

Sub:SEIAA- Environmental clearance for the proposed quarry project in Sy.No.67 (Pt) at Kakkad Village, Kozhikode Taluk, Kozhikode District, Kerala by Sri. P.K. Abdul Razack - Granted - Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 660/SEIAA/EC4/5175/2014

Dated, Thiruvananthapuram, 04.01.2018

Ref: 1. Application dated 17-10-2014 from Sri. Sri. P.K. Abdul Razack, Managing Partner, M/s Selva Bricks and Metals, Poolakandy house, Chennamangaloor, Mukkham P.O, Kozhikode-673602

- 2. Minutes of the 57th Meeting of SEAC held on 16th & 17th June 2016.
- 3. Minutes of the 56th meeting of SEIAA held on 23rd July 2016.
- 4. Minutes of the 62nd Meeting of SEAC held on 06th & 07th September, 2017.
- 5. Minutes of the 67th Meeting of SEAC held on 27th January 2017.
- 6. Minutes of the 65th meeting of SEIAA held on 22nd March 2017.
- 7. Minutes of the 67th meeting of SEIAA held on 28.04.2017.
- 8. Minutes of the 76th SEIAA meeting held on 16.11.2017.
- 9.Order dated 01.11.2017 of the Hon'ble High Court in WP(C) 30087/17 filed by M/s Selva Bricks
- 10. Affidavit received dated 14.12.2017 from Sri. P.K. Abdul Razack, Managing Partner, M/s Selva Bricks and Metals.

ENVIRONMENTAL CLEARANCE NO. 01/2018

Sri. P.K. Abdul Razack, Managing Partner, M/s Selva Bricks and Metals, Poolakandy house, Chennamangaloor, Mukkham P.O, Kozhikode-673602, vide his application received on 28-10-2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 67 (Pt) at Kakkad Village, Kozhikode Taluk, Kozhikode District for an area of 9.2995 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. The project comes under Category B2 as per Notification No.S.O.141 (E) dt.15.01.2016 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

The land use classification as per revenue records is private land. The lease area consists of 9.2995 hectares, which is private land. The quarry is interlinked with crusher unit. A quantity of 1,24,696 tons of top soil and 3,02,000 tons of mine waste will be removed during the mining operations.

Details of the project as furnished by the applicant are as follows:-

BASIC INFORMATION OF QUARRY/BUILDING PROJECT (To be filled in by the Project Proponent) PART A

| | C Project details |
|---|--|
| File No. | 660/SEIAA/E4/5175/2014 |
| Name /Title of the project | M/s. Selva Bricks & Metals |
| Name and address of project proponent. | Mr. Poolakandy Abdul Razack Managing Partner S/o KT Unnimoyi, Poolakandy house(Haritha), Chennamangaloor Mukkham (po) Kozhikode district Kerala State = 673 602. Phone: 9745608029 |
| Owner of the land Survey No. District/Taluk/ and | Land belongs to Company and other people, who have given consent to Managing Partner of the company. Re Sy. No-67(pt) Kakkad Village, Kozhikode Taluk and District of Kerala State |
| Details of period of lease or permit with number including the and expiry of lease/permit(Copy to | Lease No- 236/2010-11/2759/M3/2010 Dated on 7/7/2010 Valid up to 12-07-2022 |
| be attached) Present Status of the project a. Date & Year of starting the work of the quarry project. b. whether the quarryis working at present or not? | 13-07-2010 Quarry is working based on the lease sanctioned by DMG with Order No 236/2010-11/2759/M3/2010 Dated on 7/7/2010 for an area of 2.0235 Ha |

| 10 | |
|-----------------------------------|---|
| c. If stopped working since when? | |
| Since when; | |
| Date of submission | |
| of Application | 28/10/2014 |
| Brief description of | Open cast Semi mechanized mining, B2 |
| the project. | , DZ |
| | Mr. Poolakandy Abdul Razack |
| | Managing Partner |
| Details of Authorized | 1 - Transfer |
| Signatory and | Poolakandy house(Haritha), |
| address for | Chennamangaloor |
| correspondence | Mukkham (po) |
| | Kozhikode district |
| | Kerala State -673 602. |
|] | Phone: 9745608029 |
| <u></u> | |
| | Land Details |
| | |
| Extent of area in | |
| hectares | 9.2995Ha |
| Is the property forest | |
| land/Govt. land/own | Own land |
| land/patta land | |
| Quantity of top | |
| soil/over burden | Topsoil – 1,24,696 tonnes |
| produced and | Overburden –3,02,000 tonnes |
| managed | |
| Latitude and | 11° 17' 22.95" N to 11° 17' 35.08"N |
| Longitude | 76° 01' 01.55" E to 76° 01' 15.90" E |
| | |
| Topography of land | The topography of the lease area is hilly. The highest elevation of |
| and elevation | the lease area is 195 m MSL and lowest is 40 m MSL. |
| | |
| | |
| Slope analysis | Considering the stability of rocks, ultimate pit slope proposed is |
| Stope unarysis | 45° |
| | |
| Will there be any | |
| significant land | |
| disturbance resulting | Nil |
| in son erosion, | - 1 |
| subsidence & natural | |
| drainage. | |
| Access road to the | The public road leading to the quarry has a width of about 5.5m |
| site width and | whereas all roads within the quarry are having a minimum width |
| condition | of 7m. |

| Will there be any adverse impact on the aesthetics of the proposal site | No |
|--|--|
| proposas sas | Mining details |
| Minimum and Maximum height of excavation. | 40m above MSL 195m above MSL |
| Life of mine proposed. | 26 years |
| Underground mining if any proposed | Not applicable |
| a) Method of Mining | Open cast mining |
| Distance from the adjacent quarry | 110 m North |
| Cluster condition if any | No |
| Has "No cluster certificate" submitted? | Yes |
| Distance from nearby habitation | 100m- SE |
| Distance from nearby forest, if applicable | No forest land within 500 m radius from the mine site |
| Distance from protected area, Wildlife Sanctuary, National Park etc. | No protected area, Wildlife Sanctuary, National Park with in 15 km radius from the mine site |
| Distance from nearby streams/rivers/Nation al Highway and Roads | River – Iruvayanchi puzha- 2.8 Km – W |
| Is ESA applicable? If so distance from ESA limit | Not applicable |
| Has approved mining plan, prepared by RQP submitted? | Yes |
| Capacity of production in TPA | 3,93,000 tonnes per year |
| Details of mining process | The quarry is proposed to work with conventional open cast with bench system method with semi - mechanized mode of operation. Based on the mode and method, taking into the consideration of geological parameters of the charnockite body, the quarry pit will be so designed such that the height of the bench is kept about 5.00 m max. |

| What is the incremental pollution load from waste water generated from the proposed activities? | Not Applicable |
|---|--|
| How is the storm water from within the site managed? | a) Storm water drains with silt traps will be suitably constructed all along the periphery of the pit area (Garland drains) to collect the run-off from the lease area and divert into the storm water pond/tanks proposed within the complex. b) Appropriate channelization of storm water with channels of sufficient width All measures will be taken not to disturb the existing drainage pattern |
| Impact (| on Biodiversity and Eco restoration Programmes |
| | |
| Will the project involve extensive clearing or modification of vegetation (Provide details) | There will not be any loss of native species of genetic diversity as the quarry already exists and continuation of the same will not affect or loss of native species in general. |
| What ate the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping) | It is proposed to develop green belt to about 80 % which includes areas like along mine lease boundary (7.5 m width), all along the periphery of the mine lease area and the reclaimed area. Grass and bushes will be planted in areas prone to erosion especially at the foot of the mine lease area. Other areas will be fertilized and planted with local species. The characteristics of this vegetation will resemble that of the natural environment |
| are the mitigation measures? | This region does not have any endemic or endangered species, so any development activity in the region does not have any direct bearing or significant influences in the ecosystem stability or biodiversity |
| | Impact on Air Environment |
| What are the mitigation measures on generation of dust, smoke and air quality | Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust. To avoid the dust generation from the drilling operations, |

| | wet drilling method will be adopted. Drill machines will be equipped with dust collectors. Use of appropriate explosives for blasting and avoiding overcharging of blast holes. |
|---|--|
| Details of internal traffic management of the site. | In case of long transportation the trucks after loading will be covered with tarpaulin sheets. Speed of the vehicles will be maintained within the prescribed limits. Trucks will not be over loaded and will be maintained to the body level. |
| Details of noise from traffic, machines and vibrator and mitigation measures | Proper maintenance of machinery, equipment's and improvement on design of machines. Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. Creation of wide green belt of dense foliage between mine areas and residential colonies |
| Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures Air quality monitoring in detail | Laying of haul road as per the standards, black topping of permanent haul road and service road to avoid or eliminate air – borne dust. To avoid the dust generation from the drilling operations, wet drilling method will be adopted. Drill machines will be equipped with dust collectors. Use of appropriate explosives for blasting and avoiding overcharging of blast holes. Controlled blasting techniques will be adopted Air quality is monitored from four different corners of the project |
| monitoring in detail | site and results are found within the limits. |
| Details of power requirement and source of supply. Details of renewable energy (non | Power supply is required for office, canteen Which is from KSEB Quarry operations are mainly by HEMM which are operated by HSD. Not Applicable Risk Management |
| Are there sufficient | ALADIA I. AWANISPIANIA |
| measures proposed for risk hazards in case of emergency such as accident at the site? | Yes |
| Are proposals for fencing around the quarry satisfactory? | Yes |

| _ | T. C | | | | | |
|----------|---------------------------------|---------|--------------------|-----------------------|-----------|--------------|
| | Storage of | | | | | |
| | explosives/hazardous | | | | | |
| | substance in detail | | | | | |
| | Facility for solid | | | | | |
| | waste management | | | | | |
| | | | Socio Economic 1 | Impacts | | |
| | Will the project cause | | | | | |
| | adverse effects on | | | | | |
| | local communities | | | | | |
| | disturbance to sacred | Nil | | | | |
| | sites or other cultural | | | | | |
| | values. What are the | | | | Yan. | |
| | safe guards | | | | | |
| | proposed? | | | | | |
| | Will the proposal | | | | | |
| | result in any changes | Nil | | ĉ | | |
| 1 | to the demographic | 4 144 | -Bau. | | | 337 |
| | structure of local | | | Sec. | | |
| | population. If so, | | | | llbeat. | # |
| | provide details. | | | | | |
| | provide details. | | | 7.00 | will? | |
| | | SI.N | CSR | D.C.C. | Year | Amount |
| | | 21.13 | Activities | Beneficiary 🥟 | xear | Amount |
| li | | 0 | Ninkiniski, | | | |
| | | 1 | Donation to | Chenamangallo | 2014 | 15,00,000.00 |
| | | | Chenamangall | r Higher | | € |
| | | 95. | or Higher | Secondary | | |
| | | | Secondary | School | | |
| | | | School for the | | | |
| | | | construction of | | | |
| 1 1 | | | Building | | | ļ j |
| | | 2 | Financial | Chenamangallo | Yearl | 3,00,000.00 |
| | Are the CSR | | assistance for | r, | y | |
| | 5000. | | marriage of | Nellikkaparamb | | |
| | proposals satisfactory, Give | | poor | u | | |
| | details | | people | | | |
| | uctans | 3 | Financial | GMUP School, | Yearl | 2,00,000.00 |
| | <u>.</u> | | assistance to | Chenamangallo | У | ' ' |
| | | | GMUP School | r | , | |
| | | | for | | | |
| | % : | | construction of | | | |
| | | | ladies toilet. | | | |
| | | 4 | Financial | Kakkad village | Yearl | 1,00,000.00 |
| | | | assistance for | Makkau village | | 1,00,000.00 |
| | | | medical | | У | |
| | | | treatment for | | | |
| | | | | | | |
| | | 6 | local people | | | 21.00.000.0 |
| \dashv | What out the me | | Total | 11 15 | | 21,00,000.0 |
| [| What are the projects | The qua | urying activity wi | ll benefit local vill | ages in t | otn directly |

| | benefits in terms of | of and in-directly. Direct beneficiary will be those who get empl | | | | | |
|---|--|--|--|--|--|--|--|
| | employment | in Quarry as skilled and unskilled workers | | | | | |
| | potential? | | | | | | |
| | | | | | | | |
| _ | | | | | | | |
| - | <u></u> | PART C | | | | | |
| | A CONTRACTOR AND THE PART AND T | | | | | | |
| | | M/s. Metamorphosis Project Consultants Pvt. Ltd | | | | | |
| | Details of NABET | .(NABET approved EIA consultant) NABET/EIA/1215/141 | | | | | |
| | approved EIA | #143, 39th Main, 4th Cross, | | | | | |
| | Consultant | Behind Silk Board, BTM Layout, II Stage, Bangalore-560068 | | | | | |
| | engaged-Their | Definite Silk Doard, D'IVI Layout, II Stage, Languiste 300000 | | | | | |
| | name, address and | | | | | | |
| | accreditation details | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | Summary and Conclusion | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | It is predicted that socio-economic impact due to this project will | | | | | |
| | | positively bring prosperity and improvements in physical and | | | | | |
| | | social infrastructure in the area. It will increase the chanceof | | | | | |
| | more employment to local people. There is no resettlement and | | | | | | |
| | | rehabilitation involved in this project. Revenue of the state government and central government will be increased | | | | | |
| | | through collection of various taxes. The entire project area is devoid of any endangered flora and fauna. It is proposed to reclaim the land to a maximum possible extent by providing | | | | | |
| | Overall justification | | | | | | |
| | for implementation of | | | | | | |
| | the project. | green belt inrefilling and surrounding areas. In addition to this | | | | | |
| | | 10% of the total area is converted to water pond. Thus the | | | | | |
| | | proposed project is not likely to affect the environment or | | | | | |
| | | adjacent ecosystem | | | | | |
| | 1 | adversely. | | | | | |
| ì | | | | | | | |
| | | | | | | | |
| | | All working places will have safe means of access, safe | | | | | |
| | | working platform and exit. Persons working in hazardous | | | | | |
| | | dust prone area will be provided with dust mask. | | | | | |
| | D1 | Personal protective equipment's like respirators, ear plug, noise muff, helmet etc. Will be provided to the workers. | | | | | |
| | Explanation of how | Proper unit design and engineering controls in order to | | | | | |
| - | adverse impact have been mitigated. | protect workers, including by control of process and | | | | | |
| | occit innigated. | fugitive emissions. | | | | | |
| | | Adequate arrangement of drinking water will be done. | | | | | |
| | | Education & training will be provided to the workforce | | | | | |
| | | about facilities, protective equipment, risk associated, | | | | | |
| | | potential health effects, etc. | | | | | |
| | | Display board will be provided showing the hazards | | | | | |

- 2. The proposal was considered in the 57th Meeting of SEAC held on 16th&17th June 2016. "Further to the intimation of SEAC, the proponent along with the RQP was present in the meeting and RQP made a power point presentation on the salient features of the project. The Committee appraised the proposal based on the Mining Plan, pre-feasibility report and all other documents submitted along with the Form I application and decided to Recommend for issuance of EC for mining subject to the general conditions along the specific condition that the depth of mining shall be limited to 75 m. The proponent agreed to set apart Rs 15 lakhs (non-recurring) and 8 lakhs per annum (recurring) for next 5 years for CSR activities for the welfare of the local community. The proponent also agreed to spend this amount in consultation with the local Panchayath. This commitment may be noted in the EC".
- 3. The proposal was considered in the 56th meeting of SEIAA held on 23rd July 2016. The minutes of the said meeting are as follows: "The proposal was considered in the 57th Meeting of SEAC held on 16th &17th June 2016 and decided to recommend for issuance of EC for mining subject to the general conditions along the specific condition that the depth of mining shall be limited to 75 m. Authority noted that the lease area consists of 9.2995 hectares. The highest elevation of the lease area is 195 m MSL and lowest is 40 m MSL. Distance of mining area from nearest human settlement is 43 m-SE.100 m buffer distance is proposed to be kept between the nearest house and the proposed mining area. Site inspection has not been conducted.

Authority decided that site inspection report of the SEAC is necessary in this case with clarification whether the distance to the nearest dwelling unit is not to be measured from the boundary of the lease area. It may also be clarified whether the Mining Plan need not be modified if buffer distance of 100 meters is to be kept from the nearest dwelling unit as undertaken".

4. According to the decision of SEIAA, the proposal was again considered in the 62nd meeting of SEAC held on 06th& 07th September, 2016 for appropriate decision.

"The committee appraised the proposal based on the minutes of 56th meeting of SEIAA held on 23rd July 2016, mining plan, pre-feasibility report, and all other documents submitted along with the Form I application and decided to defer the item for field visit'.

Accordingly, the Subcommittee of SEAC had conducted the field visit. Field inspection report is given below.

"Field visit to the site was carried out on 12 Nov 2016 by Dr. P.S. Harikumar and Dr.KhaleelChovva. The representatives of the proponent were present during the site inspection. The land is a private land. The lease area consists of 9.2995 hectares. The quarry has a crusher unit. The overburden is not collected and stored at a specific site. No fencing and protection is provided around the site. From the boundary of the lease area no dwelling unit was noticed within 100 m.

Specific Condition

- 1. The depth of mining shall be limited to 75 m.
- 2. Fencing and protection measures including sign boards should be provided around the quarry site.
- 3. The over burden should be stored at a specific site
- 4. The water from the site should be channelized, conserved and clarified before discharge
- 5. Provide a green belt around the site

 In addition to the general conditions the above specific conditions needs to be complied with".
- 5. The proposal was considered in the 67th Meeting of SEAC held on 27th January 2017. The Committee appraised the proposal based on Form I, Pre-feasibility Report, Mining Plan, field inspection report of the Sub Committee and all other documents submitted with the proposal. The Committee observed that the Mining Plan itself is prepared providing adequate buffer between the existing dwelling unit in the south-eastern side of the lease area. As per the Mining Plan quarrying operations will be carried out only after observing the mandated distance of 100 m from the existing residential building. The Sub Committee members clarified in the meeting that no dwelling units were noticed within 100 mts of proposed quarrying area.

So the Committee decided to Recommend for issuance of EC subject to general conditions in addition to the following specific conditions.

- 1. The depth of mining shall be limited to 75 m.
- 2. If any plant species endemic to Western Ghats are noticed in the area they shall be properly protected in situ or by transplanting to an appropriate location inside the lease area.

The proponent agreed to set apart Rs.15 lakhs (non recurring) and Rs.8 lakhs per annum (recurring) for next 5 years for CSR activities for the welfare of the local community.

6. The proposal was placed in the 65th meeting of SEIAA held on 22nd March 2017. The Authority observed that the quarry is operational since 2010 with Lease No- 236/2010-11/2759/M3/2010 dated on 7/7/2010 for 9.2995 Ha. Therefore this will be examined

thoroughly whether there is violation in the light of the circular No.804 E dt.14.03.2017 of MoEF, Government of India and should be placed in the next meeting.

The proponent stated in the basic details that the Quarry is working based on the lease sanctioned by DMG with Order No 236/2010-11/2759/M3/2010 Dated on 7/7/2010 for an area of 2.0235 Ha and the validity of the lease is up to 12-7-2022. Hence Environmental Clearance may be issued as recommended by SEAC in its 67th meeting held on 27th January 2017 subject to obtaining legal opinion as decided in the last SEIAA meeting whether quarrying on lease also come under the scope of violation.

- 7. The proposal was placed in the 67th meeting of SEIAA held on 28.04.2017. The Authority decided to issue Environmental Clearance with the above specific conditions in addition to the general conditions as recommended by SEAC subject to obtaining legal opinion as decided in the 66th SEIAA meeting whether quarrying on lease areas without Environmental Clearance also would come within the scope of violation. Meanwhile in WP(C) 30087/2017 filed by M/s Selva Bricks, the Hon'ble High Court had directed to pass orders in the application of the petitioner, in the light of the legal opinion received.
- 8. In the light of the clarifications of the legal opinion of 76th SEIAA meeting held on 16.11.2017, it was decided to issue EC to the proposal. The proponent has submitted an affidavit dated 14.12.2017 vide reference 10th cited, satisfying all the above conditions.
- 9. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed building stone quarry project in project in Sy.No.67 (Pt) at Kakkad Village, Kozhikode Taluk, Kozhikode District, Kerala of Sri. P.K. Abdul Razack, Managing Partner, M/s Selva Bricks and Metals, Poolakandy house, Chennamangaloor, Mukkham P.O, Kozhikode-673602 for an area of 9.2995 hectares, subject to the specific conditions as recommended in para 5 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.
- 9. 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 Planas

submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

- 10. 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.
- 11. 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, Kozhikode 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. P.K. Abdul Razack, Managing Partner, M/s Selva Bricks and Metals, Poolakandy house, Chennamangaloer, Mukkham P.O. Kozhikode-673602



Sd/-

P.H. KURIAN.I.A.S, Member Secretary (SEIAA)

To

Mr. Poolakandy Abdul Razack Managing Partner M/s. Selva Bricks & Metals S/o KT Unnimoyi, Poolakandy house(Haritha), Chennamangaloor Mukkham (po) Kozhikode district -673 602.

Copy to,

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

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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.
- 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.
- 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 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.
- 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 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.
- 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 propermission of the competent authorities for drawal of requisite quantity of surface and ground water for the project.
- Regular monitoring of flow rates and externatility upsileam and downstream of the springs and perennial nallahs flowing in and around the misse lease area shall be carried out and reported in the six monthly reports to SEIAA.
- the six monthly reports to SEIAA.

 Occupational health surveillance protein of the worker should be under taken periodically to observe any contractions due to exposure of dust and the corrective measures, if needed.

For Member Secretary, SEIAA Kerala

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