

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.

Compliance

Rain water Harvesting facilities are installed in the Mining project of United Granites and Metal as per the prevailing condition of the site. Proper catchment areas are identified and drainage pipes are interconnected so that all the four side water are flown in to the lower level of the open pit earmarked for the purpose of Rain water Harvesting system. Further, parapet has been erected along the edge of the source at collection point as well as flowing direction such a way that are water are effectively collected at the open pit.

The details of the provision made for collection rain water is under

SL	Location	DIMENSION		
		L	B	D
	South Pit	200	200	08
	North pit	280	250	108
	East Pit	150	150	6

The details of Rain Water Harvested as on compliance period is mentioned below

1. South pit 200 m x 200 m x 4 m = 16000 m²
2. North pit 200 m x 250 m x 4 m = 2 lakh m³ or 2000 lakh litres
3. East pit 150 x 150 x 3 m = 67500m³ or 67500000 litres

Due to the short fall of Rain, the expected collection & rain water could not happen as on date. But, in the coming days it may be achieved.

2. Einvormnemtn Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

Einvormnemtn Monitoring Cell has been formulated and functioning in the company effectively

Members of the EMC

S.No	Name/Establishment	Designation/Position
1	Sri. Sonu Jose Director, United Granites and Metals	Head of the EMC
2	Sri. Prasanth	Asst. Environment Officer (Safety)
3	Sri. Rodriques	Ast. Environment Officer
4	Sri. Jomy	Asst. Environment Officer (Health)

Further, Sri. Y. Thomas Environment manager has entrusted the task of the following function in the field such as

- i) New project and determine the impact of the environment.
- ii) Design of comprehensive environment management plan.
- iii) obtain all clearance in matter of environment and implementation of the Government directives, if any
- iv) constant monitoring of Air, Noise and water pollution laboratories (P) Ltd Ernakulam - 683104, a laboratory Accredited by KSPCB as 'A' grade Laboratory.
- V) Increase the cover of green field on the boundary of the lease hold areas.
- vi) Adaptation of conservation of resources

VIII) Organising Health checkups and medical camp with the Association of Local Body Society Hospital

Silent features of cell/Evaluation performance of the committee

29 workers are underwent medical test in reputed hospital, Xray of chest, complete blood test, ECG, Lungs function test, Kidney function test etc are carried out.

20 face workers are deputed to the group vocational training centre for Kerala Mines at Kollam for one week intensive training for effective control of Dust/noise during mining operation.

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.

Suitable avenue trees are planted along either side of the tarred road and open parking areas, including approach road and internal roads in the earlier period. The trees are well grown up to 3 mtr in height with side branches which protect the spread of the dust. (Images of the trees planted along road side are enclosed)

4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.

Solar energy panels are installed in the mines and staff residing areas for illumination purpose. Also solar Heater/geyser panels are fitted in the canteen for the welfare of the workers.

5. Sprinklers shall be installed and used in the project site to contain dust emissions.

Sprinklers are installed in the project site to contain dust emissions. Three different types of sprinklers are used in the project site to contain dust such as

- a) Water sprinkler at fixed intervals with high speed water output from the storage tank
- b) Mobile sprinkler to the face advancing area, drilling points etc.
- c) Water Mist fan top downwards with special design to contain the dust pollution. (There different types of sprinklers used in the site photos are enclosed)

6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.

It is agreed and planning is made for ECO restoration including the mine closure plan to be met at the cost of the company.

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

10 percent of the total excavated pit area is retained as water storage area and the other area been reclaimed with stacked dumps, OB and soil. Such reclaimed area are planted with country plant/species which suits to the local condition for easy growth and survival to the

tree. It is already reported that 2944 nos. of trees are planted. Out of that 40% trees are presently grown up to the height of 5 mtr and remaining trees are grown up to 4 mtr height.

8. Corporate Social Responsibility (CSR) agreed upon the proponent should be implemented

Corporate Social Responsibility (CSR)

CSR scheme undertaken by the company for the period 1-1-2019 to 30-06-2019 is furnished below.

1) Construction of House to Shri. Shibu	Rs. 5,00,000
2) Construction of House to Shri. Shaji	Rs. 5,00,000
3. Construction of House to Shri. Kathi	Rs. 2,00,000
4. Construction of House to Sabu	Rs. 2,00,000
5. Medical AID	Rs. 1,57,000
6. Donation	Rs. 88,000
Donation to roring poverty based people	Rs. 1,20,766
„	Rs. 11,000
„	Rs. 50,000
Maintenance of Road work/ Extension of Road	Rs. 5,00,000
Total	Rs. 26,32,861

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.

Barbed wire fencing are erected to the height of 4 feet. The sign boards, markings and other boundary indicators are protected at all times and such a way that is clearly visible, discernible at any time.

10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.

Warning alarms indicating the time of blasting as per the stipulation of the Explosive department and local body panchayath direction are arranged and which is in practice.

11. Control measures on noise and vibration prescribed by KSPCB should be implemented.

Measures are taken to control Noise, vibration as prescribed by the KSPCB.

12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.

Quarrying activities are carried out only in the day time.

13. Blasting should be done in the controlled manner as specified by the regulations of Explosives Department or any other concerned agency.

Blasting been done in the controlled manner as per the regulations of the Explosives Department and mines safety department.

14. A licenced person should supervise/control the blasting operations.

The blasting operation in the mines are controlled/supervised by licenced persons.

Sri. Rodriques and Sri. Naresh are engaged for the conduct of blasting operation in our project.

15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.

Access roads to the quarry are tarred, dust are controlled during transportation by effective wet system and covered with protective sheets.

16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan/specific conditions.

Overburden materials are stacked separating within mines area and been utilized for restoration of old pit and also preserved for usage at the time of closure of mine plan

17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention in the mining plan/specific condition.

Height of the bench is maintained not exceeding 5 mtrs and the width of the bench is maintained not less than 5 mtr

18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.

Sufficient and suitable mats are used to avoid fly rock at the time of blasting

19. Maximum depth of mining from general ground level at site shall not exceed 10 m.

Presently the company carrying on the mining activities at the top level and in future the cardiation of the C will be complied.

20. No mining operations should be carried out at places having a slope greater than 45°.

Mining activities are not carried out in the area having 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.

Acoustic enclosures are fitted in the Air compressors to reduce sound amplifications in addition to the green belts and thick hollow brick wall. Hence, the noise levels are kept within the permissible limit standard prescribed by KSPCB and centre pollution control board.

22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet etc

The workers on the site are provided with required protective equipments such as ear Muff, Helmet, Hand gloves, Goggles, safety boot and safety jacket

23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.

Water garland with settling device are build for removal of solids in the lower slopes around the core area to channalize storm water

24. The transportation of minerals should be done in covered trucks to contain dust emissions.

The company had initiated action to transport the materials in covered tarpaulin to contain dust emission.

25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.

During the compliance period 10 trees were uprooted/fell down and 50 trees are planted.

26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.

Company has taken due care to dispose the spent oil from diesel engine in separate container by trained persons as specified under relevant rule/regulation.

27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.

Explosives are stored in Magazine situated at Siolated place which is approved by the explosives department.

28. A minimum buffer distance of 100 m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.

A minimum buffer distance of 100 mtr from the boundary of the mine lease hold area is maintained. No work or other facilities for mining will be done where the nearest dwelling/units/other structure present within 100 mtr of the boundary.

29. 100 m buffer distance should be maintained from forest boundaries.

The condition stipulated in Sl. No. 20 does not applicable to this project. Since, there is no Forest boundaries are lying near the boundary to lease hold area.

30. Consent from Kerala State Pollution Control Board under Water and Air Act (s) should obtained before initiating mining activity.

30. Consent from the KSCP B under water, Air Acts were obtained prior to the commencement to the mining activities.

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.

31. All statutory clearances are obtained from competent authorities.

The details are as under

A. For storage/usage of explosives

1) Licence No. valid up to

2) Licence No. valid up to

B. Mining Operation

Permission obtained from DGMS for using Heavy Earth moving equipment vide order No.....

c) Quarry Lease

Department of Mining and Geology issued lease vide file No .

32. In the case of any change (s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.

33. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forward to the office of this Authority as confirmation.

36. A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

37. The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of complacence 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 MoEE 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 numbers 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 activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.

50. The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.

51. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

52. Concealing the factual data or submission of false fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act 1986.

53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

54. The above conditions shall prevail notwithstanding to the contrary, in consistent, or simplified, contained in any other permit, license or consent given by any other authority for the same project.

55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.

56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.

57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.

58. All vehicles used for transportation and within the mines shall have "PUC" certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'

59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.

60. Regular monitoring of flow rates and water quality 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.

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

For Member Secretary, SEIAA Kerala



