

# HANNA ROCK PRODUCTS (Pvt.) LIMITED

Meenkunnam, South Marady, Muvattupuzha Taluk, Ernakulam-Kerala

Ph. +91 9544505901, 0485-2877430, 2877432

Web: [www.hannarock.com](http://www.hannarock.com)

email: [mines@hannarock.com](mailto:mines@hannarock.com)

---

## **ENVIRONMENT MANAGEMENT PLAN – COMPLIANCE REPORT** **(Ref. Environmental Clearance No. 42/SEIAA/KL/7159 dated 15.03.2013)**

### **FOR THE PERIOD FROM 1<sup>st</sup> OCTOBER 2016 TO 31<sup>st</sup> MARCH 2017**

#### I. Specific Conditions:

1. Advancement of active quarry face should be a top to bottom approach.

**Mine/Quarry workings are being carried from top to bottom as specified.**

2. Benches should not be oriented in straight line but should follow the topography as agreed in the proposal.

**The benches are formed in oval shape following the natural topography of the area.**

#### II. General Conditions:

- (i) Rain water harvesting to collect and utilize the entire water falling in land should be provided.

**The drainage system is made to divert the rain water to the disused quarry at the bottom level and has a large capacity of storage. The water thus collected is used for sprinkling on haulage road for dust suppression and also for the raising of plantation. The water holding capacity is further increased to store more quantity of water.**

- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

**Environment Monitoring Cell is constituted and working as per the requirement.**

- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.

**The saplings planted during the previous monsoon and previous years are taken care by continuous water and providing suitable manure for the plants. With these arrangements the survival rate of saplings has increased considerably. We plan to plant around 500 saplings in the months of August/September 2017**

Contd..... 2/-

- (iv) The project shall incorporate devices for solar energy generation and utilization wherever possible.

**The working of the quarry is restricted to day light workings. However, we have arranged for few solar energy devices in the office for general purpose.**

- (v) Sprinklers shall be installed and used in the project site to contain dust emissions.

**A water tanker fitted with sprinklers is utilized in the quarry area for the suppression of dust. The haulage road is provided with stationary sprinklers for continuous water spray on road for avoiding air borne dust. Around 10 to 12 water sprinklers are erected near the Office premises and the haulage roads, where the loaded trucks ply. All these sprinklers are working and are kept in good condition.**

- (vi) The eco-restoration plan submitted with the proposal should be fully implemented.

**The eco-restoration plan in terms of Land, Water, Air and Biological Environment are being implemented in phased manner as envisaged in the report.**

- (vii) Corporate Social Responsibility agreed upon by the proponent should be implemented.

**The details of such spending (CSR) from 1<sup>st</sup> October 2016 to 31<sup>st</sup> March 2017 is enclosed as Annexure-1.**

- (viii) Barbed metal wire fencing around the mining area shall be provided with a height of no less than 5 ft. so that falling of animals /human belongings /dumping of garbage etc. does not happen.

**The total mining area has been covered by barbed wire fencing to avoid inadvertent entry of any human being and also for falling of animals etc. The damaged portions were re-erected and maintained properly.**

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

**Blasting timing has been fixed for the quarry and displayed on boards fixed at the entry of the quarry. The warning alarms are provided and also the blasters assistants will move in all four directions before the blasting to prevent and inadvertent entry of animals/human being in the blasting zone.**

- (x) Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.

**Access road to the quarry where the vehicles collect the finished products are concreted and maintained well to avoid the dust generation. The haulage roads within the quarry are sprinkled with water to avoid dust generation during the machinery and vehicle movement inside the quarry.**

- (xi) Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored.

**Overburden and waste material generated out of quarrying is being utilized for backfilling of the adjoining old quarry for restoration. Partial quantity has been utilised for erecting bunds along the haulage road to avoid/restrict the movement of vehicles**

- (xii) Height of the bench shall not exceed 5 m and width should not be less than 5 m

**Height of the bench is always kept below 5 mtrs. and the width of the bench is kept at 15 mtrs. for the easy movement of excavators and trucks.**

- (xiii) Mats to reduce the fly rock blast to maximum of 15 PPV should be provided.

**The recommendations of the report are strictly implemented at the quarry in terms of number of blasts per round and maximum quantity of explosives per blast etc. As per the findings of Study conducted by NITK-Surthkal, Mangalore-Karnataka**

- (xiv) Mining depth should not exceed beyond 40 m unless otherwise specified or not below the level nearest stream bed, whichever is less.

**At present the depth of the quarry are just 18 to 20 meters below adjacent ground level.**

- (xv) 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

**Provision of crusher for the quarry does not arise as the boulders produced in the quarry are being transported to the nearest crusher situated at 100 meters from the quarry.**

- (xvi) Assurance in the form of affidavit should be given to SEIAA that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.

**The said affidavit dated 26.04.2013 has already been submitted to SEIAA.**

- (xvii) Garland drains to be provided in the lower slopes around the core area to channelize storm water.

**Garland drains are provided to channelize the storm water to the dis-used quarry at the bottom of the area.**

- (xviii) Debris/silt traps to be provided to prevent entry of dust and quarry wastes entering the main streams.

**Silt traps are provided at suitable places to prevent the wastes entering the main stream. Such traps are cleaned frequently to avoid the blockages and to allow smooth movement of rain water.**

- (xix) All other statutory clearances should have been obtained, as applicable, by the project proponents from the respective competent authorities including that for blasting and storage of explosives.

**All the required statutory permissions required for the operation the quarry has been obtained for operating the quarry. Recently the Mining Plan for the quarry prepared under Rule 66 of Kerala Minor Mineral Concession Rules, 2015 and got approved by the Senior Geologist, Ernakulum. (Annexure II).**

- |  |   |
|--|---|
| <b>1. Validity of Quarry Lease</b>   | <b>: Up to 04.09.2025</b>   |
| <b>2. Pollution Control Board approval</b>                                 | <b>: Up to 30.06.2018</b>   |
| <b>3. Explosive Magazine validity</b>                                      | <b>: Up to 31.03.2020</b>   |
| <b>4. Mining Plan Approval</b>   | <b>: Ltr. No. DOE/363/E2/2016<br/>dated 01.04.2016</b>                |
| <b>5. Permission to use Heavy Machinery<br/>From DGMS-Bangalore Office</b> | <b>: Vide ltr. No. SZ/BGR/106/P-<br/>16/2014-15/97 dated 7.1.2015</b> |

- (xx) In case of any change(s) in the scope of the project, the project would require a fresh approval by this Authority.

**As there is no change in the scope of the project such approval does not arise as of now. However if any such changes is required we will approach for approval before such changes are made.**

- (xxi) 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 provision of the Environment (Protection) Act, 1986) to ensure effective implementation of the suggested safeguard measures in a time bound satisfactory manner.

**Any such directions/conditions shall be taken and implemented.**

- (xxii) Any 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) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006.

**All such stipulations under various acts mentioned above shall be complied with.**

#### **DECLARATION**

**WE HEREBY DECLARE THAT THE DETAILS MENTIONED ABOVE ARE TRUE TO THE BEST OF BELIEF AND KNOWLEDGE**

Place: Aarkuzha  
Date: 10.04.2017

(S.A.Dwarakanatha)  
Mines Manager

## ANNEXURE-1

### HANNA ROCK PRODUCTS (Pvt.) LIMITED

Meenkunnam, South Marady,  
Muvattupuzha Taluka,  
Ernakulam District  
Tel. No. +91 9544505901, 03 & 04

#### DETAILS OF EXPENDITURE UNDER CORPORATE SOCIAL RESPONSIBILITY FROM OCTOBER 2016 TO MARCH 2017

|    |            |  |                  |  |
|----|------------|--|------------------|--|
| 1  | 17.10.2016 | Ashraya Charitable Society                 | 5000.00          |  |
| 2  | 08.11.2016 | St.George JYCC ( Dialysis treatment )      | 20000.00         |  |
| 3  | 16.11.2016 | Thatwamasi Desavillaku                     | 10000.00         |  |
| 4  | 14.12.2016 | Football Tournament (S.marady)             | 10000.00         |  |
| 5  | 24.12.2016 | Christmas celebration ( Citizen Club )     | 20000.00         |  |
| 6  | 03.01.2017 | Ayiravalli Temple                          | 5000.00          |  |
| 7  | 21.01.2017 | Gov. U.P.School , South Marady             | 20000.00         |  |
| 8  | 25.01.2017 | Paristhithi –Prakruthi Samrakshana Samithi | 2000.00          |  |
| 9  | 30.01.2017 | Jibi Vellaramkattil ( Treatment Fund)      | 30000.00         |  |
| 10 | 31.01.2017 | Women’s welfare ( Study unit)              | 10000.00         |  |
| 11 | 08.02.2017 | Ashraya Charitable Society                 | 4000.00          |  |
| 12 | 18.02.2017 | Study Materials ( Lions Publications)      | 3500.00          |  |
| 13 | 20.02.2017 | Jeevakarunya Nidhi (ABHM)                  | 2500.00          |  |
| 14 | 21.02.2017 | Marady Thrika Temple ( Sivarathri )        | 8000.00          |  |
| 15 | 01.03.2017 | St.Marys H.S.S. , Arakuzha                 | 3000.00          |  |
| 16 | 08.03.2017 | Auruvikkal Devi Temple                     | 10000.00         |  |
| 17 | 11.03.2017 | Sevens Football Tournament                 | 5000.00          |  |
| 18 | 17.03.2017 | KSEB workers Welfare Fund                  | 7000.00          |  |
|    |            | <b>Total</b>                               | <b>175000.00</b> |  |

**ONE TIME DONATIONS:**

|    |   |           |  |
|----|---|-----------|--|
| 1. | Donation for Cancer Patients as per Village Panchayat recommendations | 26000.00  |  |
| 2. | Shiby Thankachan (marriage)   | 25000.00  |  |
| 3. | Sanal. K ( charges for eye operation )                                | 65000.00  |  |
| 4  | Joseph.P.K, S.Marady ( house renovation)                              | 12000.00  |  |
| 5  | Financial Aid for Akhil .S ( for education)                           | 10000.00  |  |
| 6  | Providing water for villagers ( two wards)                            | 120000.00 |  |
| 7  | Providing well constructions  | 48000.00  |  |
| 8  | Eldhose.K.V ( house renovation)                                       | 14000.00  |  |
|    | Total   | 320000.00 |  |

**Financial assistance extended to the house owners for repair & renovation of their houses around quarry area**

|    |   |                  |                  |
|----|---|------------------|------------------|
| 1. | Jose, Aariplakkil, Meenkunnam           | 25000            | ARAKUZHA VILLAGE |
| 2. | K.K.Biju ,Kappilamkuzhiyil,Meenkunnam   | 25000            | ARAKUZHA VILLAGE |
| 3. | Shaji, Vathiyapillil , Meenkunnam       | 25000            | ARAKUZHA VILLAGE |
| 4  | Joby Valukandathil, Meenkunnam          | 25000            | ARAKUZHA VILLAGE |
| 5  | Francy ,Aaryaplalil , Meenkunnam        | 25000            | ARAKUZHA VILLAGE |
| 6  | C.K.Prabhakaran ,Jawahar co, Meenkunnam | 25000            | ARAKUZHA VILLAGE |
| 7  | Prasad, Mennkunnam                      | 25000            | ARAKUZHA VILLAGE |
| 8  | Eldhose. A ,Jawahar col, Meenkunnam     | 25000            | ARAKUZHA VILLAGE |
|    | Total                                   | 200000.00        |                  |
|    | <b>GRAND TOTAL</b>                      | <b>695000.00</b> |                  |

