

# HANNA ROCK PRODUCTS (Pvt.) LIMITED

Meenkunnam, South Marady, Muvattupuzha Taluk, Ernakulam-Kerala

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## **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> APRIL 2016 TO 30<sup>TH</sup> SEPTEMBER 2016**

#### 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 existing drainage system near the office premises were reconstructed and maintained for the free flow of water and are properly desilted soon after monsoon (end of September 2016)**

- (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 are planted as per yearly plan. 500 numbers of saplings were planted during July-August 2016 we plan to plant same quantity during monsoon of 2017.**

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- (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. Few more sprinklers are provided near the office on the road to further reduce the dust propagation. All the sprinklers provided are well maintained and are functioning properly.**

- (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> April 2016 to 30<sup>th</sup> Sept. 2016 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.**

- (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 Blast vibration studies are conducted at the quarry by National Institute of Technology Surathkal, Mangalore-Karnataka. The results of vibration/fly rock are well within the established limits. 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.**

- (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 12 to 15 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 just before the onset of Monsoon i.e., during May-June 2016**

- (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).**

**We have also carried out the Environmental Monitoring by MoEF approved laboratory for Air and Water samples in and around the Quarry area and the details of such report is enclosed for reference.**

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| <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.**

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- (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: 05.10.2016

(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 APRIL 2016 TO SEPTEMBER 2016

1	26.04.2016	FFS Accident Force Service	5000.00	
2	04.05.2016	Meenkunnam Thrika Temple	15000.00	
3	07.05.2016	KLM Paurasamithi (Study Materials )	2500.00	
4	07.05.2016	Ashraya Charitable Society	2500.00	
5	15.06.2016	Paristhithi –Prakruthi Samithi ( seeds )	2000.00	
6	07.06.2016	Ashraya Charitable Society	5000.00	
7	17.07.2016	Aruvikkal Devi Temple (reno)	50000.00	
8	18.07.2016	Ashraya Charitable Society	2500.00	
9	22.07.2016	Chandra Agricultural Farm ( plants &seeds)	15000.00	
10	19.08.2016	Farmers Sang	2000.00	
11	05.09.2016	Gov.U.P.School ,Marady (Onam Celeb)	5000.00	
12	04.09.2016	Ganeshotsav	4000.00	
13	05.09.2016	Ashraya Charitable Society	2500.00	
14	06.09.2016	Sruthi Treatment Fund	15000.00	
15	13.09.2016	Maniyankallu Onothsav	25000.00	
16	14.09.2016	Ashraya Onam Kit	5000.00	
		Total	158000.00	

**ONE TIME DONATIONS:**

1.	M & C Orphanage	25000.00	
2.	Jose Nedumkandam (marriage)	15000.00	
3.	Lissy ,Meenkunnam (marriage)	25000.00	
4	Omana8,Pottamakootathil ( house renovtion)	10000.00	
5	Financial Aid for Thankamma's Grand Daughter for education	7500.00	
6	Donation for Cancer Patients as per Village Panchayat recommendations	67500.00	
7	Donation for Village Road repair	200000.00	
	Total	350000.00	

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

1.	M.J.Joseph , Maniyankallil , Meenkunnam	25000	ARAKUZHA VILLAGE
2.	Saju Devasya , Kannamkallel	25000	ARAKUZHA VILLAGE
3.	K.N.Baiju, Kappilamkuzhiyil, Meenkunnam	25000	ARAKUZHA VILLAGE
4	Binu James , Maniyankallil , Meenkunnam	25000	ARAKUZHA VILLAGE
5	M.J.Sebastain, Maniyankallil , Meenkunnam	25000	ARAKUZHA VILLAGE
6	K.K.Janardhanan, Kappilamkuzhiyil	25000	ARAKUZHA VILLAGE
	Total	150000	
	<b>GRAND TOTAL</b>	<b>658000.00</b>	

Place: Aarkuzha  
Date: 05.10.2016

(S.A.Dwarakanatha)  
Mines Manager

