

**Brick Clay Mining Project of M/s Ram Brick Field Vill: Salarpur (mangalaur) & kamaura  
mangalaur, Tehsil- Roorkee & Distt- Haridwar, U.K.**

## **Risk Analysis & Disaster Management Plan**

Safety of mine and the employees is taken care of by the mining rules & regulations, which are well defined with laid down procedure for safety, which when scrupulously followed safety is ensured to manpower & working environment.

### **1.1 Environmental Risks & Individual Risks Involved During Mining:**

The proposed activity is brick earth mining in agricultural plots where there is no passage of common public. However possible risks in the case of brick earth mining projects are erosion, inundation/floods, and accidents during bricks loading and transporting etc. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. A worker in a mine should be able to work under conditions, which are adequately safe and healthy. At the same time the environmental conditions should be such as not to impair his working efficiency. This is possible only when there is adequate safety in mines.

### **Objective of Risk Assessment**

- Identifying hazardous activities
- Assessment of risk level and severity in different operations
- Identification of control measures
- Setting monitoring process
- Reduce the impact of mishaps of all kinds
- Reduce the inherent potential for major accidents.
- Slope stability.

### **1.2 Assessment of Risks & Mitigative Measures**

Factors of risk involved due to human induced activities in connection with mining operations are as under:

#### **1. Drilling and blasting:**

There shall be no drilling and blasting involved during mining as the mineral is found loose in nature.

#### **2. Floods & Its Control**

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Mining will be done during the non monsoon periods and the depth is just 1.80m bgl therefore problem of inundation/floods is not likely to happen. There was no incidence of inundation/floods reported from the area in recent past.

### **3. Dewatering**

Depth of mine is limited to 1.8m depth only from the ground level whereas the ground water levels deep than this depth. Hence no dewatering is required. During mining, no ground water table will be intersected at all.

### **4. Failure of Pit Slope & Its Control**

Pit will be created of limited depth only *i.e.* 1.8 m in plots. It is proposed that berm and periphery of the plot area will be sloped in a very gentle manner so that there is no pit left which can pose any danger to human being or animals.

### **Vehicular Movement and their Mitigation Measures**

- Possibility of overloading of bricks carts may injure the workers.
- The possibility of accident during vehicular movement in the mine in case pathway is not compacted or movement is at the embankment.
- All transportation within the mining lease working should be carried out directly under the supervision and control of the management.
- The vehicles will be maintained in good condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management.
- To avoid danger while reversing the equipments/vehicles especially at the working place/loading points, stopper should be posted to properly guide reversing/spotting operating, otherwise no person should be there within 10m radius of equipments.
- Overloading of material will be avoided.
- A statutory provision of the fences, constant education, training etc. will go a long way in reducing the incidents of such accidents.

### **5. Mineral Loading, unloading and Transportation:**

- The mineral will be loaded in horse carts by manual method. There is least possibility of injury to the person during loading operation.

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- There is a chance of falling of animals/human into pits in agriculture land by overlooking of fenced area near working. For that slope will be developed to prevent any such mishap simultaneously.
- During heavy rainfall the mining activities will be closed.
- All persons in supervisory capacity will be provided with proper communication facilities.
- Competent persons will be provided FIRST AID kits which they will always carry.

**6. Slope stability**

The proposed depth of mining is only 1.8 m however a slope will be maintained from safety point of view of men and animals. Mine safety measures shall be adopted as per Mine plan.