ENVIRONMENTAL MANAGEMENT PLAN (EMP)

INTRODUCTION

The Environmental Management Plan consists of a set of mitigation, management, monitoring and institutional measures to be taken during implementation and operation of the project, to eliminate adverse environmental impacts or reduce them to acceptable levels. The present environmental management plan addresses, the components of environment, which are likely to be affected by the different operations in a Soapstone mine.

The Objectives of the EMP:

The objectives of EMP are:

- A mechanism to assist managers, supervisors and construction crews to comply with current legislation.
- Overall conservation of environment.
- Minimization of waste generation and pollution.
- Safety, welfare and good health of the work force and populace.
- Vigilance against probable disasters and accidents.
- Monitoring of cumulative and long time impacts.
- Ensure effective operation of all control measures.
- Judicious use of natural resources and water.
- To describe methodology of mining including equipment based on IBM approved mining plan.
- To determine mitigation measures for the impacts identified.
- For mitigation of impact, recommend an Environmental Management Plan with action plans and budget.

Total Plantation at Applied Area (HA.)

The existing land use of the area is almost agricultural land. Proposed land use pattern is as below:

Year	Plantation outside the area		Total no. of sapling
	Area (ha.)	No. of saplings	
1st	0.06	60	60
2nd	0.06	60	60
3rd	0.06	60	60
4th	0.06	60	60
5th	0.06	60	60

Total	**0.3**	**300**	**300**

Post Plantation Care:

The post plantation care to be undertaken is described below:

1- The saplings will be planted at the onset of monsoon.
2- Plants will be taken care by applying fertilizers and proper weeding etc.
3- Healthy tree species will be recommended for plantation.
4- Fatal saplings will be replaced with new healthy species.
5- Every sapling will be covered by tree guard to avoid damage through cattle grazing.
6- A Gardner and mazdoor should be employed for care.
7- Necessary arrangement will be provided for watering tree species planted at different parts.

OCCUPATIONAL HEALTH AND SAFETY MEASURES

Occupational health and safety (OHS) is a cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment. The goal of all occupational health and safety programs is to foster a safe work environment. To control and minimize the risks at workplace, proponent implements Health, Safety and Environment Policy with the following objectives:

- To prevent hazards
- To provide safe and healthy environment to all the employees.

The Proponent therefore, adopts the policy set below for the purpose of creating and maintaining safe and healthy environment.

Occupational Health Hazards at Mine Site

Mining activity experiences risk of a number of hazards. Some examples of such hazards are as under:

- Exposure to dust:
- Noise exposure;
- Physical Hazards;
- Vehicular movements.

These mainly impact on those working within the mine although health hazards can also impact on local communities

Implementation of Occupational Health and Safety Measures

Occupational Health & Safety measures result in improving the conditions under which workers are employed and work. It improves not only their physical efficiency, but also provides protection to their life and limb. Proponent will consider the following safety measures:-

- To depute dedicated safety team
- Inspection and maintenance of equipment's and accessories
- Periodic health check up
- Removal of unsafe conditions and prevention of unsafe acts
- Detailed analysis of each and every incident
- To provide standard PPEs and ensure its uses
- Periodic inspection by internal and external safety experts
- Celebrations of various safety events for awareness
- Medical facilities & first aid boxes will be established in the mine premises.
- Pits, openings in floor etc. which may be a source of danger, shall be either securely covered or securely fenced. Securely fencing a pit means covering or fencing it in such a way that it ceases to be a source of danger.

Safety Policy:

Safety of both men and materials is accorded maximum priority in the mine. An occupational health and safety policy has been framed with the following objectives. In general following measure are been done.

- To improve working conditions and environment;
- To propagate safety measures and create safety consciousness among workmen, supervisors and officials.
- To train workmen as well as the supervisors in their respective fields of operations
- To reduce the scope of accidents and to aim at accident free performance;
- To adopt measures for improvement in health standards;
- To ensure that no long term effects on health due to industrial environment take place.
- To ensure that all statutory provisions relating to safety are followed.

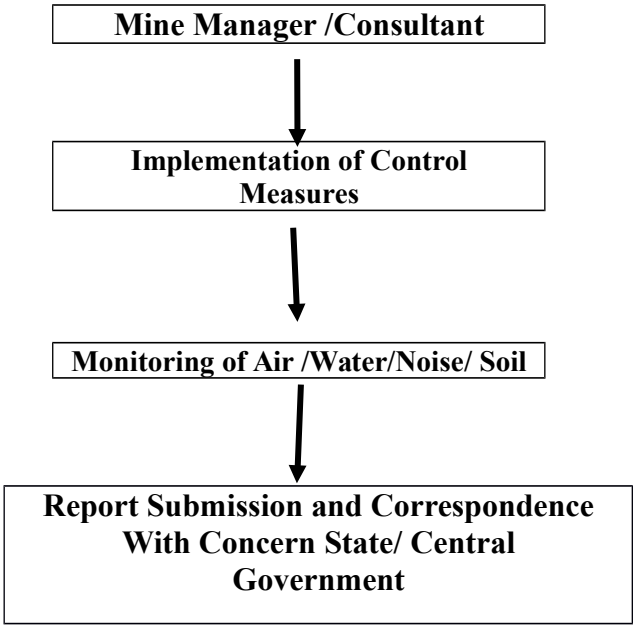
Safety and Security:

Each workers employed in the mine will provide helmets and shoes. Safety belts will be used for working in the top of the benches. The mule track/road will be provided to open the mining faces. The maintenance of mule track/road will be under taken periodically.

ENVIRONMENTAL MONITORING PROGRAM

The project proponent shall set up an Environmental Management Committee (EMC) as laid down below and also proposes the Environmental Monitoring Plan for the regular monitoring of the pollution load.

STRUCTURE AND FUNCTION OF EMC



The EMC has the responsibility for Liaoning with state and central governmental environmental authorities for enforcing environmental legislation, environmental protection and control.

1. The duties of the EMC will include the following:
2. Environmental monitoring of the project site and the surrounding area.
3. Ensuring that standards for pollution control are well maintained.
4. Developing the green belt.
5. Ensuring water use is minimized.
6. Carrying out the Environmental Management Plan.
7. Organizing meetings of the Environmental Management Committee and reporting to the committee.
8. To ensure proper funding for implementing EMP.

The proponent shall follow the standard methods for monitoring various environmental parameters i.e. Air, Water, Noise and Soil through accredited laboratory and submit the compliance report as per EC conditions applicability.

Monitoring Schedule for Environmental Parameters:

Particulars	Monitoring Frequencies	Imp. Monitor Parameters
Ground Water	Twice in a year	pH, SS, TDS, Iron, Chloride, Hardness, Alkalinity, NO_3, PO_4
Ambient Air Quality	Twice in a year	SPM, SO_2 & NOx
Soil Analysis	Twice in a year	pH, conductivity, SO_4, NO_3, PO_4, Texture, Alkalinity
Noise	Twice in a year	Noise level in dB

SOCIO-ECONOMIC ENVIRONMENT

The lessee has not only taken keen interest in the socio-economic upliftment of the area but also served as a helping hand to the local people and Government also. The lessee made various efforts for the local development mainly by paying more attention in the fields of agricultural, medical & primary health, drinking water, literacy. The applicant also plans for conducting some cultural activities, sports and games during major festivals for the staff, workers and people of the nearby area. Better education facilities, proper health care, road infrastructure and drinking water facilities are basic social amenities for better living standard of any human being. Proponent will help to enhance all basic facilities in the area, which will help in uplifting the living standards of local communities.

All person shall be employed at mine site and local villagers are to be benefited directly or indirectly by the project.