RISK ANALYSIS AND DISASTER MANAGEMENT PLAN

All types of industries face certain types of hazards which can disrupt normal activities abruptly and lead to disaster like fires, inundation, failure of machinery to name a few. Similarly China Clay, Ball Clay & Silica Sand mines also have impending dangers or risk which needs to be investigated and addressed. Disaster management plan is formulated with an aim of taking precautionary steps to avert disaster and also to take such action after the disaster which limits the damage to the minimum.

Nevertheless, the following natural/industrial problems may be encountered during the mining operation:

- Inundation-Filling of the mine pit due to excessive rains/flooding.
- Slope failures at the mine faces.
- Accident due to fire.

ANTICIPATED DISASTER AND CORRECTIVE ACTIONS

Inundation

This is China Clay, Ball Clay & Silica Sand mine project. In case of inundation, at any time in the future, the water will be allowed to stand and naturally percolate into the ground. If there is any need to empty out any particular pit for working, then pumps will be used to pump out the water. In other cases where possibility of accumulation of water is there preventative & management measures shall be planned as per Regulation of MMR 1961.

Disaster Due to Failure of Slope

The pit slopes may fall at any time causing damage to human life and machinery. The only remedy to the effect of such situation is to dress pit slopes and maintaining the pit slope as specified in Mine Regulations, 1961.

Disaster Due to Fire

No surface fire is involved in China Clay, Ball Clay & Silica Sand mining. The lease area does not involve forest area/land.

Care and Maintenance during Temporary Discontinuance

During temporary discontinuance of mine the mining operation due to any reason, notice (as per Rule 24 of MCDR, 1988 & Reg.6 of MMR, 1961) will be sent to IBM and mines safety authorities. Notice will be accompanied as per Rule 24 of MCDR, 1988, vide, Form no.D-1. All precautionary steps will be taken into account in respect of care and maintenance. Following steps will be taken:

Protection of the pits:

The quarry part of the lease will be protected by fence as per DGMS circular all around the open pit with caution board displaying the danger in local language.
**Protection of area:**
There will be protected by displaying a board at the entry with caption like “Entry in the premises without permission is strictly prohibited” in local language.

**Maintenance and monitoring:**
The area will be monitored every week by competent person and if maintenance is needed will be done as per requirement.
- All the mining machinery shall be shifted to a safe place.
- Care and upkeep of plantation done shall be carried out on regular basis.
- All rules and regulations shall be followed in case of any temporary discontinuance of mine.

**DISASTER PREVENTION MEASURE**
In order to take care of above hazards/disasters, the followings measure/ safeguards will be strictly followed:
- Working of mines as per approved plans.
- All safety precautions and preventions of MMR should be strictly followed during all mining operations.
- Regular maintenance and testing of all mining equipment as per manufacturer’s guidelines.
- Provision of adequate capacity pumps for pumping out water from the mining pit with standby arrangements.
- Checking and regular maintenance of garland drain bunds and earthen bunds to avoid any inflow of surface water in the mine pit.
- Entry of unauthorized persons should be prohibited.
- Periodic check of effective working of firefighting and first aid provision in the mining area.
- Training and refresher courses for all the employees.
- Cleaning of mining faces regularly.