Risk Assessment
This may deal with action plan for high risk accidents like landslides, subsidence flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authority may also be described. The area lies in seismic Zone II; therefore precautionary measures shall be adopted. In the land slide prone zone area, fast growing soil binding species shall be planted & cemented bunds shall be made at the lower side so that minimum damage could be observed during land slide period.

Some of the aspects to be included in emergency plan are as follow:

- Organization details of command structure, working systems, implementation procedures and emergency control centre & have of incident controller, site main controller, their duties & other key personnel.
- Communication centres & persons involved call signs & list of telephone numbers.
- Availability of special emergency equipment e.g. heavy lifting gear, bulldozers, dumper, special fire fighting equipment.
- Details of voluntary organizations with names of organizers, telephone numbers, resources etc. Humanitarian arrangements e.g. transport evacuation centres, emergency feeding, treatment of injured, first aid, ambulances etc.
- No other accidents like subsidence of flood, tailing dam failure etc. observed during mining in the region.

In spite of following all the precautionary measures and safety rules, regulations and procedures, mining accidents cannot be ruled out completely. Following are the accidents which can take place in semi mechanized opencast mining and measures proposed to be taken.

- Fall of human beings or fall of machines from benches/ dumps/haul roads.
- Fire & Explosion in machinery.
- Emergency situation due to social reason such as public unrest, terrorism etc.
Preventive Measures:

- Creating berm on the side of benches/haul roads of height greater than or equal to ½ tyre radius. Minimum height of berm shall be 1.2 m and slope 45°. Minimum clearance of 1.5 m will be maintained between outer tyre and berm.
- All provisions of MMR 1961, conditions imposed in permission for Deep hole drilling and blasting and use of HEMM, and conditions of explosive license will be followed.
- Fire fighting equipment in the machinery/workshop/office will be maintained. Persons will be trained in the use of fire fighting equipment and mock rehearsal will be conducted.
- Training of security personnel.
- Procedures as laid down in Disaster Management Plan to be followed.

Training:

Persons will be trained in the following:

- Training of protective equipment.
- Procedures for reporting emergencies.
- Location and use of fire fighting equipment.
- Knowledge of alarm system and siren.
- Evacuation procedures.
- Training in first aid as per Mines Rules 1955.

Emergency Equipment & Facilities:

- Mobiles.
- Fire fighting equipment’s
- Emergency medical supplies

Other protective equipment’s i.e. goggles, helmet, face shield, hand gloves, safety belts, barricade tape. First Aid box will be provided as per the provisions of Mines Rules 1955.