

RISK ASSESSMENT

Human health and Environment risk from developmental activities is mainly due to occurrence of some accident consisting of an event or sequence of events like explosion, fire and toxic hazards. Risk analysis provides a numerical measure of the risk that a particular facility poses to the public. It begins with the identification of probable hazardous events at an operational area and categorization as per the predetermined criteria. The consequences of major events or accidents are calculated for different combinations of weather conditions to stimulate worst possible scenario. These predictions of consequences are combined to provide numerical measures of the risk for the entire facility. Risk assessment should be done on the basis of past accident analysis at similar projects, previous judgments and expertise in the field of risk analysis especially in the accident analysis.

DISASTER MANAGEMENT PLAN

Disaster management plan should prepared with respect to the following possible accidents in a mining project.

Open Cast Bench Slope Failure.

For determining factor of safety, the bench slopes are to be monitored regularly by sensitive instruments at precise level at regular intervals to check for any possible ground movements. A well developed drainage system over the lease hold area is to be ensured to check that the storm water flows out of the lease area.

- Failure to make and keep the quarry sides secure by proper benching sloping and keeping benches of adequate height and width.
- Undercutting so as to cause dangerous covering.
- Inadequate nos. of competent persons for carrying out statutory inspections.
- Lack of supervision.

Accidents due to Machinery

- During reversal operation
- Unauthorised driving of vehicles (mostly by helpers)
- Riding of vehicles unauthorisedly.
- Attempt to ride moving vehicles
- Overloading

- Driving vehicles in a toxicated stage
- Vehicles moving in steep gradient or on benches of inadequate width

Other than Transportation Machinery

- Use of sub standard equipments
- Attempts to clean moving parts of machinery
- Non provision or removal of guards for moving parts of machinery

Accidents due to use of Explosives

- Fly rock throw due to blasting
- Inadvertent handling of explosives

However, considering the magnitude of operation which will be around 900m³/annum, It is envisaged no such hazard will be there in the project.

Considering the mining operation only following measures to be adopted for blasting.

Blasting will be carried out by a person with Blaster's Certificate of Competency issued by DGMS.

Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.

Portable blasting shelters will be provided near the blasting site.

Blasting will be preferably done during 5.00 PM to 6.00 PM depending on seasonal variation of break hours or the end of the day in order to ensure that no person or animals are within the blasting danger zone.

Misfires will be handled carefully as per stipulated procedures.

Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.