

RISK ANALYSIS AND DISASTER MANAGEMENT PLAN

Mining is an ancient occupation, long recognized as being arduous and liable to injury and disease. The lifecycle of mining consists of exploration, mine development, mine operation, decommissioning and land rehabilitation. Mining is a multi-disciplinary industry, drawing on several professions and trades. To ensure precision in clinical and epidemiological work, it is important to enquire about the details of tasks, as the term 'miner' is relatively non-specific. Mining is traditionally classified as metalliferous or coal, and as surface or underground. Metalliferous mining can also be classified according to the commodity being mined.

Unsafe conditions and practices in mines lead to a number of accidents and causes loss and injury to human lives, damages the property, interrupt production etc. Risk assessment is a systematic method of identifying and analysing the hazards associated with an activity and establishing a level of risk for each hazard. The hazards cannot be completely eliminated, and thus there is a need to define and estimate an accident risk level possible to be presented either in quantitative or qualitative way. Because of the existing hazards of mining as an activity and the complexity of mining machinery and equipment and the associated systems, procedures and methods, it is not possible to be naturally safe. Regardless of how well the machinery or methods are designed, there will always be potential for serious accidents. It is not possible for an external agency to ensure the safety of an organisation such as a mining company nor of the machinery or methods it uses. The principal responsibility for the safety of any particular mine and the manner in which it is operated rest with the management of that mine.

Hazard identification and risk analysis involves identification of undesirable events that leads to a hazard, the analysis of hazard mechanism by which this undesirable event could occur and usually the estimation of extent, magnitude and likelihood of harmful effects.
