## Features of the Risk Identification and Assessment Process in the Romanian Mining Industry

Roland Moraru University of Petrosani, Romania roland\_moraru@yahoo.com

Marius Casian Minca Ministry of Administration and Int, Aff, Romania Nicolae Ilias University of Petrosani, Romania iliasnic@yahoo.com Iosif Andras University of Petrosani, Romania iosif.andras@gmail.com

## ABSTRACT

The inadequate comprehension of specific hazards, mainly related to their nature and magnitude, have lead in the past to the occurrence of several catastrophic events in the Romanian mining industry. The mining industry, like other major global industries, must consider and manage risks to business objectives, to remain successful. Management of risks requires a proactive, systematic approach, applied when key decisions are being made across the life cycle of the industry, from exploration to mine closure. Presently, the Romanian mining industry is committed to improve the quality and consistency of risk assessments conducted across the industry. There is also a need to introduce more sophisticated methods and their associated benefits, therefore providing the opportunity to achieve a higher effectiveness of risk assessment processes. The paper has as goal to outline the basic issues which should be addressed when setting the strategic, organizational and risk management context required for risk assessment, and to highlight the appropriate risk assessment methods applicable in every life cycle stage of a mine, ranging from design until closure and rehabilitation. The paper also emphasizes the specific issues to be approached during the risk identification phase in mining working systems.

Keywords: risk identification, mining, assessment, management

## **GENERAL CONSIDERATIONS**

As part of the overall management of hazards associated with any operation, it would be anticipated that the organization would have a Safety Management System (SMS). This system would be an integral part of the operation's total management process (G. Bǎbut, R. Moraru, 2003).

The purpose of the SMS is to ensure safe operation of a mining facility, by providing a comprehensive and integrated process for systematically managing all aspects of the adopted control measures. To achieve this purpose, the SMS must not only be comprehensive and integrated with respect to the control measures, it needs to be suitable and appropriate to the specific facility, it must be used in practice, and must be reviewed and revised whenever the circumstances require.

A SMS will typically have a set of generic elements forming a continuous improvement cycle. Such a cycle could be:

- policy and objectives;
- standards and targets;
- planning and prioritizing;
- implementation;
- monitoring;
- audit;
- corrective action;
- review;

with a continual improvement loop back.