

Occupational Health and Safety Management

in the
European Mining Industry

euromines



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1. The Guidelines for Sustainable Development in the European mining industry

Euromines' members have subscribed to the Guidelines for Sustainable Development in the European Mining Sector as published in June 1999. All members are encouraged to achieve the highest standard of occupational health and safety for all who work in the sector.

With regard to health and safety the Euromines guideline states:

- *Members shall provide good, safe and healthy working conditions, taking such protection measures as necessary.*
- *Members shall identify potential risks associated with mining and shall adopt suitable preventive measures to remove or reduce such risks.*

The European mining industry is committed to continuously improve its health and safety record and in many cases goes beyond legal compliance in the management and measures taken.



Regulatory background

2.1 EU regulations and national legislation

Article 118 A of the Treaty establishing the European Economic Community requires that the Council of the European Communities “shall adopt, by means of Directive, minimum requirements for encouraging improvements, especially in the working environment, to guarantee a better level of protection of the safety and health of workers.”

The Framework Directive (89/391/EEC) describes the general principles by which these improvements should be achieved and the daughter directives cover many areas of the working environment.

As a consequence quality principles are applied to the organisation of Occupational Health and Safety services.

1. Establish the organisation
2. Document the procedures
3. Provide document control and record system
4. ??
5. Audit the process regularly
6. Identify faults and take corrective actions
7. Communicate effectively and efficiently

In addition the Safety and Health Commission of the Mining and Other Extractive Industries (SHCMOEI), a European tri-partite body between national governments, industry and unions has accomplished over the past decade various recommendations and EU directives, such as

- the Directive 92/91 on drilling for the extractive industries;
- the Directive 92/104 on surface and underground extractive industries.

It has issued various recommendations for safety and health measures which have been taken up by governments and have been implemented in national legislation.

National legislation has been the backbone of the maintenance of health and safety standards. In some cases it is the driver for EU legislation as introduced from member states.

2.2 Legal obligations of Management: General principles

The employer has the primary responsibility for the occupational health and working environment of the employee (including both the physical and the psycho-social working environment).

The employer shall make appropriate arrangements, with due regard to the nature of his activities and size of undertaking, in order to comply with National legislative requirements, in-line with EU directives as outline in 2.1

2.3 Risk assessment

Every employer is responsible for the assessment of the risks to the occupational health and safety of employees when they are at work. This also concerns non- employees working at or visiting a mine.

A risk assessment involves:

- Identification of hazards,
- Evaluation of the risks - who might be exposed and what might be the consequences,
- Prioritisation of the measures which should be undertaken, to avoid risk.
- Review of the assessment at regular intervals (the risk assessment and control measures should be documented).
- Documentation of risk management at all levels.

2.4 Appointment of Competent Advisors

It is the duty of the employer to appoint only competent occupational health and safety advisors whose competence must be maintained. The industry has trained such advisers and depending on the size of the operation has them continuously working on site or uses them on a time-shared basis.





3. Risk management and loss control

Reductions in health and safety related losses have been and still are fundamental to the well-being of the mining industry's employees, but also to the mining business in general. It is one of the most important responsibilities of the mining industry as an employer to supply safe and suitable workplaces to its employees.

But apart from this responsibility and the obvious need for legal compliance, it should be noted that there are also good economic reasons for investments in health and safety. This is one of the main areas to apply loss control in any manpower intensive industry. The real costs of sickness absence, accidents, occupational disease, occupationally related ill health, and any associated compensation claims, are considerable. A small percentage change in these costs will far outweigh traditional focus areas for cost control. Therefore social and economic goals do go hand in hand on these matters.

Considerable progress has been made over the last decades in the classical areas of dust and noise reduction and control, as well as in the safe handling of chemicals and explosives. New technologies allow for safer tunnelling and drilling and have reduced the amount of physical work by the introduction of automation.

4. Performance indicators in occupational health and safety

A basic principle of management is: If you can measure it, you can manage it.

Accident statistics and their analysis have been well established in the mining industry for decades, and performance has been improved continuously.

This is also the case for Occupational Disease and work related ill-health, and for sickness absenteeism. Each EU member state, that had and still has a mining industry, has some form of statistical records, which include some or all of the following indicators. The industry itself has kept records of many other indicators:

- Sickness absence;
- New cases and total number of cases of occupational disease, ill-health, and injury.
- Ill-health retirements;
- Deaths resulting from work activity;
- Compensation work claims, litigation against company;
- Production stoppage due to accident or illness,
- Cost to industry.



5. Role of occupational health and safety management

All companies of a certain size must have a Health and Safety Policy. The policy should by definition be: proactive, preventive and promote the health of the employees. Occupational health and safety management in mining companies is normally integrated into the companies' business system, usually with a strong commitment from the senior management.

Mining managers have occupational health and safety performance responsibilities, and it is common practice to conduct audits on their effectiveness in achieving related performance objectives.

Many mining companies go beyond the legally required measures and management systems and on a voluntary basis implement measures to the additional protection of the workers.

5.1 Placing people in suitable work

It is the responsibility of the employer to provide safe and suitable working conditions for employees in the mine. In order to support this obligation mining operations regularly carry out various medical examinations of the workforce.

This is done to ensure at the beginning of a working contract that the proposed employee is suitable for the type of work, and it also provides a reference point for the continuous examinations that will ensure the worker will stay in good health. If needed, such examinations can lead to additional health protection measures or to the transfer of the worker to another workplace.

5.2 Health supervision and monitoring

The occupational health services monitor various indices of health in the work force. This may range from sickness absence of people employed, to mortality of pensioners. Certain employees exposed to specific risks, such as chemicals, biological agents, radiation and fumes require special health surveillance.

In any workforce there are always vulnerable persons, such as those with serious illness, the disabled, the pregnant, the young or other groups who may be particularly at risk and require special attention to their working environment.

The management of mines provides special support to these groups whenever feasible and practicable. However, it should be noted that specific health sensitive groups might not be fit for every type of job or workplace. Therefore, the mining industry utilises pre-screening of workers before allocation to a specific workplace.

5.3 Treatment services

Trained staff and first aid facilities are crucial in the mining industry and are available at every workplace. Many mines provide health care well beyond the minimum legal requirements. The occupational health services of the mines have the role to provide information and training on the need and use of such facilities.

5.4 Identifying and controlling hazards

Hazards, such as toxic chemicals or falling ground, need to be identified, and risks, such as the exposure to these chemicals or the chances of injury from rockfalls, need specific attention.

By the application of various management techniques, hazards in health & safety have been, and continue to be actively identified. Techniques range from epidemiological studies in health related aspects, to applications of modern methods of production, which reduce exposure to risks. The control of hazards is a pro-active aspect of mining which has always been at the forefront of development in the industry, as can be illustrated by the safety record of mining compared to many other industries which by nature should be far less hazardous.

5.5 Health and safety promotion

Health and safety promotion at the workplace is a substantial part of the activity of mining management. In particular, the reduction of disease and illness, which accounts for more time lost than accidents, is very often related more to overall lifestyle than working conditions.

5.6 Education

A key role to good health and safety management is to educate management and employees about their health and safety responsibilities, and about the prevention and control of workplace hazards. Advice on occupational health, safety, hygiene and ergonomics and on individual and collective protective equipment are frequently required and given. Most mining companies have regular training for their staff to ensure that the objectives can be achieved.



6. Current standards of occupational health and safety provision in the mining sector

Current standard practice in the mining industry includes the following measures:

- Pre-employment screening/medical examination;
- Health supervision and health surveillance, routine or associated with special circumstance i.e. change of task or job;
- Monitoring of health and safety parameters in the workplace;
- Facilities for the prompt recognition and treatment of illness and injury in the workplace;
- Systems for the identification, monitoring and control of known or unknown hazards at the workplace;
- Advice and management of the planning and organisation of work;
- Screening for non-occupational disease and health programmes;
- Supervision of vulnerable groups;
- Advice, feedback and education at all levels of employment.

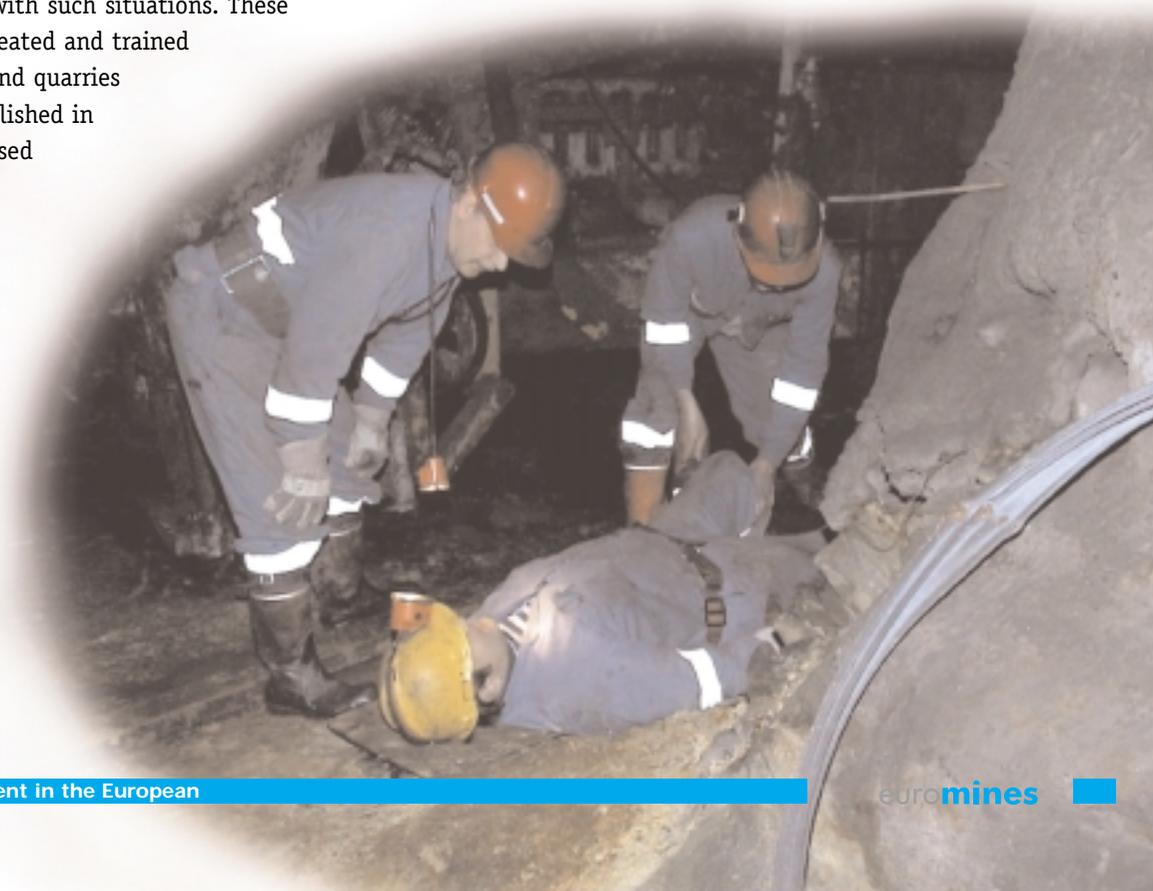


7. Occupational health and safety providers

A wide range of professionals specialised in different areas provides occupational health and safety in the mining sector. They usually work in the form of multidisciplinary teams. All have externally determined standards of competence, which may vary from country to country.

8. Mine rescue teams

It is essential that special arrangements exist at all mines to deal with emergencies, especially where lives may be at risk. For this purpose specially trained and equipped groups are available to all mines to deal with such situations. These so-called mine rescue teams have been created and trained either at the mine sites or where mines and quarries are too small such teams have been established in the region by various operations. Specialised equipment is available from various mine areas and their operations and can be flown in from these centres to any mine or quarry in distress.



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