

Risk Management In The Iron And Steel Industry- A Challenge For Occupational Hygiene And Safety Professionals

P.V.S.Prabhakara Murty, PhD

Deputy Manager (Industrial Hygiene), Occupational health services,
Steel Plant, Visakhapatnam 530031, India
E-mail: pvspmurty@hotmail.com

The protection of people and physical assets is the concern of the health and safety professionals. Working environment factors such as chemicals, noise, psychosocial, Layout, ergonomic etc., play a major role in assessing health and well-being of the employees. They also contribute significantly to the outcome of an organization. Thus risk management of the working environment is a major concern to every manager, health and safety professionals in the organization. The struggle for reducing and controlling risk needs comprehensive hazard identification, risk assessment, risk communication and risk management.

Workplace environmental stressors in the iron and steel industry are large in number and typically they include, physical hazards (noise, vibration, extreme temperatures, ionizing and non-ionizing radiation, inadequate illumination), inhalable agents (vapours, gases, dusts and fumes), exposure to pathogens (e.g. legionella), exposure to carbon monoxide (CO) gas, skin contact with chemicals (irritants, solvents, sensitizers, volatile organic carbon), working in confined spaces, ergonomics, exposure to asbestos, slips, trips, falls from height and same level, falling objects, electric shock, burns related to electrical and accidental contact with hot molten metal, inadequate ventilation, unguarded machinery, fire and explosion, workplace violence, odor pollution, inadequately trained health and safety professionals, lack of effective supervision on usage of personal protective equipments (PPE), manual handling and repetitive work, inadequate workplace inspections and accident / incident prevention programs, inadequate emergency rescue facilities, inadequate occupational safety and health training and lack of effective communication and coordination among the various professional groups.

Majority of the above mentioned work related hazards could be managed through effective implementation of occupational health and safety (OHS) management programs. Nevertheless, empirical evidence examining the effectiveness of the programs is sparse. Measures and methods to determine the success of workplace OHS programs are not fully developed. Performance measures focus attention on data. These should include (i) injury and illness statistics, (ii) safety and health audit findings and violations, (iii) employees perceptions on OHS management system implementation in the organization, (iv) chemical, physical and biological agent exposures, (v) tracking systems of OHS violations and (vi) tracking of environmental releases.

OHS professionals need to decide what performance measures could to be effective at workplace to establish process and systems that produce desired results. Statistical analysis of the data could provide information to identify leading indicators and lagging indicators for better OHS performance in an organization. Teamwork, cooperation, coordination and openness among various professional groups are the assets to an organization working to improve workplace risk management.