

Critical Health Risk Control: The Journey Continues

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Objectives

Critical Risk Management for workplace occupational health is essential to ensure that controls are in place and effective to prevent worker occupational illness and fatalities. In 2015 Dr Ross DiCorleto presented the paper, "Bowties and Half Windsors: The evolving face of managing critical health risk in mining" and an update in 2018, "The evolving face of managing critical health risk in industry". The objective is to outline the next steps in the journey of critical risk management for health. This includes the acceptance of health related permanent disabling exposures, the integration with safety critical risk and combined approach at a job/task based level. This provides the operator/maintainer with one tool to check critical controls (health, safety, environment) are in place to effectively manage critical risk.

Methods

Current available Critical Risk information was researched and reviewed on the development of critical risk management in industry for safety and health (including RiskGate, ICMM, Industry). The current approach and definition used for safety in industry were applied for critical health risks, expanding from the original approach of only health fatality outcomes to include permanent disabling illnesses (for example hearing loss) and to move from multiple individual control checklists to the integration into specific jobs/task procedures covering all critical risks. The process was applied to the operator task of setting anodes in aluminium smelting and cement manufacturing bagging.

Results

The result of the work is one operational procedure for the operator/maintainer which covers all critical risks and controls for both health, safety. An additional outcome was that some of the controls to reduce occupational exposure also reduce environmental emissions resulting in one procedure with critical control checks covering health, safety and environment. Operator acceptance and efficiencies increased as a result of the integration process.

Conclusions and Recommendations

Occupational exposures over a long period of time at levels around or above occupational exposure limits (OEL's) increase the risk of occupational illness causing permanent disabilities or fatalities. Effective critical health risk controls are essential to manage this risk and protect worker health. Simple, effective tools for workers to use increase the understanding of critical risk and use of critical controls to prevent occupational illness or fatalities.

Keywords

critical health risk, critical control, critical risk management, occupational illness, fatality, industry, occupational exposure