Power of Technology: The Answer to Risk Management

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Overview

Risk in the workplace typically involves exposure to danger, which no matter how minimal the resulting consequences are, will have a lasting negative impact on the organisation.

It is important for companies and their workers to protect themselves against any risks that are present on site. The emergence of technology into the inherently hazardous and slow-to-adapt industry like mining can help mitigate and manage risk to create a safer working environment.

Risk in the Mining Industry

The mining industry is often associated with risks due to extreme working conditions, the remote nature of mine sites and mostly, the operational environment.

Risks are omnipresent on site; from working with heavy machinery to exposure to toxic materials, there are serious ramifications on workers' health.

The main type of risk found on mining sites are operational risks that are found when working with heavy machinery, working at heights, noise levels which can impact hearing long term, coal dust inhalation which causes a shortness of breath or chemical hazards which can result in burns or even poisoning.

All these operational risks not only affect the day-to-day work on the mine but also bear some risk to the health and wellbeing of employees. Other types of risks include reputational risk, production risk and risk faced by human error which all work to affect the companies bottom-line and their competitiveness within the industry.

It is vital that companies deliberately plan for and devise risk-mitigation strategies in advance of a project's commencement.

Proactive Risk Management

In the past, the mining industry has handled risk with a reactive safety management approach. After an incident would occur, companies would look at causation factors - such as environmental conditions, an individual's actions, failed defences or an organisational factor - make the necessary changes and carry on until the next incident occurred.

Today, risk management is handled more proactively, by preempting what might cause incidents in the workplace, and instilling controls in place before the incident can happen. There is effort put into consistently and accurately monitoring the effect of those controls rather than responding to undesired incidents when they happen.

For example, it is a good control to have a defibrillator on site in the event that someone has a heart attack. However, if there are no employees on site that know how to use a defibrillator, then the control becomes ineffective as there is no action to follow up with. The difference between a good and a great control is measured by the actions that can follow. Measuring and monitoring competencies and compliances of employees is a good way to ensure what employees are capable and competent in completing certain tasks.

In order to take this more proactive approach to risk management, it is vital that all likely risks and risks that have occurred are well documented and actively monitored. Controls then need to be established for each of the possible risks and communicated to competent and capable employees for effectiveness. Ensuring staff have the appropriate competencies and capabilities to complete tasks on site is an important factor in managing risks.

There is a variety of risk types which you can find in the mining environment. Some of these include:

- Behaviour

- Communication

- Vehicle Interactions

- Explosives

- Electricity

- Working at Height

- Confined Space

- Fire

- Lifting Objects

- Ground Failure

Technology can be Leveraged to Make Safer Decisions

Mining companies can sometimes find themselves unprepared or overwhelmed for the changes to new technology and current systems that they have in place. The introduction of technology into the mining industry can help to effectively manage risk, increase operational efficiency and promote the safety of employees.

Innovative developments in underground safety include:

- Satellite imaging technology
- Artificial Intelligence (AI)
- Robotics
- Driverless vehicles

With the emergence of these technologies, the need for people to work long shifts is eradicated and the driverless vehicles can go deeper into the mines and stay there for longer. This promotes a safer environment for workers whilst also increase operational efficiency on site.

Head in the Cloud

Cloud computing platforms are also on the rise, changing the way we deploy, store and manage, and process information. With all vital data being stored in a company-wide accessible location, projects can be completed with an instant and open communication that will reshape the ways companies are able to operate.

Cloud computing promotes productivity and safety as hours that were spent on delivering vital information between site, mine and office now become an instantaneous procedure that all workers will have easy access to.

The introduction of these smart data solutions also works to help management make fast, decisive actions to increase efficiency, safety and productivity.

Data technology has allowed companies to change their communication techniques throughout the company and decrease unnecessary work. The ways they can adopt this is by introducing innovative software into their company.

With the introduction of innovative software into a workplace, risk action plans can be easily stored and monitored in one universal location. By having access to these records, employees can review risk strategies and familiarise themselves with controls to take in the event of an incident.

This works in potentially mitigating or de-escalating the risk from occurring. Competent employees can also be tracked and managed to ensure no one is completing tasks they are not qualified for. Technology can store and analyse large volumes of data so that we can easily get a picture of where your control erosion is contributing to risk.

With the mining industry heading towards this innovative path where the benefits outweigh the short-lived technical challenges, now is the time to invest in technology for your company that aims to help:

- Eliminate any risk to workers and their safety

- Increase operational efficiency whilst decreasing operational risk

- Promote productivity on site

How We Can Help

At **INX Software**, our aim is to deliver products that help reduce and mitigate risk in the workplace. Each product is designed for a specific area that we have found the most effective when it comes to **risk management** and **data documentation**.

Let our products work for you as they:

- Ensure all risks are reported consistently and accurately
- Track the likelihood of incidents through a risk matrix
- Manage everything from Incidents to Audits all in one place
- Integrate multiple functions into one easy-to-use system
- Ensure employees are competent and capable for their roles
- Capture data around controls verification
- Easily identify risks before they escalate into incidents
- Minimise administrative efforts
- Simplify the way you manage the way your company communicates
- Streamline and simplifying employee health, hygiene and reporting
- Document storage of risks that impact to the environment

Customer Success Stories

OceanaGold uses INX InContol to effectively monitor their incidents and event reports. 95% of the events they have stored in INX are about verifying their controls and action plans instead of responding to incidents, allowing for better proactive risk management.

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'We have noticed an improvement in the quality of event information being reported and the speed in which people are closing out events and actions. With the integration functionality through INX InTuition and INX +LMS, our online training is now very streamlined, making it a simple process for our site administrators to assess whether someone is compliant or not.'

Discover more customer stories >

Our Product Suite

Creating safer, smarter, and more sustainable workplaces with an integrated workplace health, safety, environment and quality management solutions suite.

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