Whitepaper

Reducing Risk & Improving Safety in the
Mining Sector

Camms.
A Riskonnect company

Building a positive and safe workplace through comprehensive risk management & incident reporting

In the hazardous mining industry, cultivating a robust safety culture isn't just a priority; it's an absolute prerequisite for operational excellence. The work to extract vital minerals like coal, iron ore, gold, bauxite, copper, lithium, zinc, lead, silver and other rare earth elements required by modern society today comes with a wide range of inherent risks that can potentially harm workers in this sector and compromise their safety.

According to the National Safety Council, mining is second on the list of sectors with the highest death rate per 100,000 workers, and they experienced 113 deaths in 2022 alone. There were also 4,100 non fatal injuries reported in the mining sector throughout 2022. While in 2022, the U.S Bureau of Labor Statistics (BLS) shared that there were 29 fatalities in 2022 in the standard mining sector and another 113 in oil & gas mining. Elsewhere, the HSE in the UK reported that there 138 workers killed in work related accidents in 2023/24 across all sectors. These alarming statistics could stem from a poor safety culture. According to a recent State of Safety Culture in Mining report by Sentis, 88% of worksites operate within a negative safety culture while 1 in 4 incidents aren't reported.

The number of organisations that fall under the mining sector umbrella is considerable. Common potential hazards and risks that workers in this diverse sector must contend with routinely include dealing with ground falls, collapses and explosions exposure to noise, fire, explosions, dust, and chemicals, heavy machinery accidents and working in confined space, remote areas and at heights.

Additionally, the past couple of years has seen the mining sector undergoing major regulatory changes, natural disasters, economic disruptions, a pandemic, and now a growing demand for sustainable alternatives - all of which highlight the need for a strong and agile culture of safety and resilience.

Fostering a positive and safe culture that goes beyond mere compliance with regulations not only provides your employees with the necessary skills and knowledge to identify and mitigate potential risks effectively, but it demonstrates your commitment to the well-being of your workforce and creates a culture of safety that permeates every aspect of operations.

The mining sector is one that we are all dependent on. Globally its value is predicted to reach $2.83 trillion by 2028. As the industry continues to undergo radical change and become increasingly complex, competitive, and challenging, organisations must strive to ensure that employees are well-equipped and empowered to work safely and effectively by addressing risks and incidents head-on.
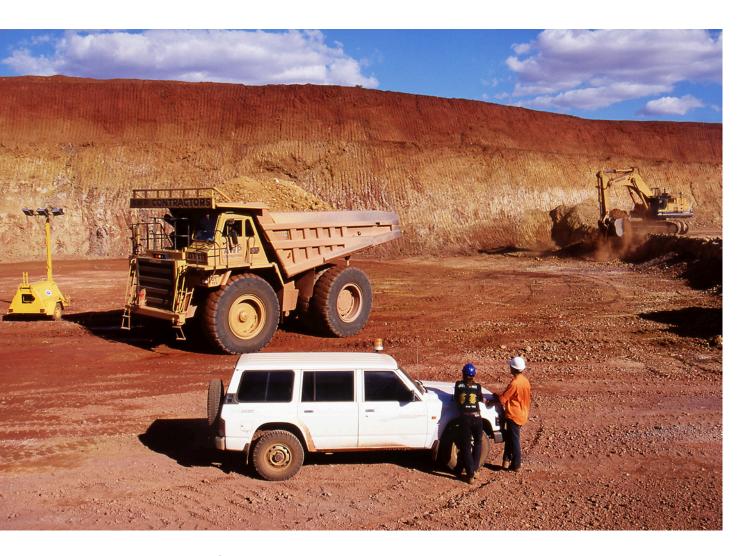
142
fatalities
in 2022 in the mining sector

4,100
non-fatal injuries
in the mining sector in 2022

88%
of mining sites operate
with a negative safety culture

Fostering a Safe Culture

In the mining industry, instilling a safe culture requires behavioral changes throughout the organisation; from the top levels of management to the operational workers. Health & Safety training, policies, and operating procedures should be at the heart of the organisations operating model.

It is important that health & safety is not viewed as a box ticking exercise necessary to meet health & safety standards and align with policies. It should be viewed as a source of value to an organisation, instilling efficient safe processes brings a healthy working environment, positive brand recognition, and is a surefire way to reduce worker compensation payouts, insurance costs, and fines.

Improving safety within your workplace has a variety of benefits. These include a massive reduction in accidents & injuries, business stability, improved morale, higher recruitment, and reduced medical and insurance costs.

Apart from these standout benefits, implementing effective safety measures ensures that your employees are well-positioned to make safe and intelligent decisions in emergencies to avoid crises. Creating a safer working environment involves proactively managing risks, near misses and hazards, having a clearly defined process to log and resolve incidents, and ensuring employees are following health & safety guidelines, policies, and procedures.

Shaping Workplace Health & Safety Culture from the Top Down and Bottom Up

Companies with strong proactively safe cultures understand that incidents and emergencies could occur at any time, and they have robust systems in place to immediately deal with them. They have effective methods of communicating & escalating incidents internally so they can resolve them quickly and understand their root causes. More importantly, they lead by example by learning from these incidents to ensure they never happen again.

A positive workplace health & safety culture should be driven by strong leadership to set the tone from the top, which in turn fosters buy-in and adoption from middle management and front-line employees, this helps overcome any resistance to process changes. To set an organisation up for success, safety teams need to create a more holistic approach to safety management, championing good communication, training, stringent policies, robust incident reporting, and effective risk management.

6 Steps to Reduce Risk & Improve Safety in the Mining Sector

Ultimately, creating a safe culture in any organisation is a shared vision that involves every employee in the business, but there are 6 critical factors that can improve safety in the mining sector.

These 6 steps – which can easily be formulated by implementing a workplace health & safety software platform - can make incident reporting and risk management more accessible, accountable, trackable, and resolvable - and transform the safety culture in a workplace.

1 Effective Incident Management

An effective way to improve Health & Safety is to implement a robust process for managing and resolving accidents & incidents. Employees at all levels need to be able to easily report incidents in a consistent format, capturing vital details regarding, date, time, incident type, and employees involved, and they should be able to upload evidence in the form of photos, documents, and URLs.

Most modern firms use a GRC software platform to automate their incident reporting process. These solutions enable employees of all levels to log accidents & incidents directly into the platform. Different forms can be created for different incident types depending on the type of detail that needs to be logged, an incident related to an IT or cyber breach will likely be logged & escalated differently in comparison to accidents and injuries resulting from operating heavy machinery or dealing with hazardous materials. Teams can set up different workflows and forms for different categories of incident.

Once logged, incidents can easily be rated based on their severity and type. Automated workflows escalate the incident to relevant stakeholders enabling them to conduct investigations, determine impact, and monitor cases until closed. The platform can integrate with your active directory, business process register, policies, procedures, and regulations - enabling teams to link incidents to the employees involved and the policies, procedures, and business processes affected.

Having an automated online incident reporting process enables organisations to quickly respond to, investigate, and analyse workplace safety incidents & trends to prevent future and recurring issues. Most GRC platforms offer a mobile app enabling workers to upload photos, videos, and audio to capture incidents faster and with greater detail and escalate them quickly.

2 Reporting Hazards & Near Misses

Capturing potential hazards and near misses as and when they happen is the best way to ensure they never turn into full blown incidents. Teams need an effective way to capture this vital information to ensure that they can be fully investigated to understand the root-cause - so they can implement effective controls and policies to prevent future occurrences.

Most organisations use GRC platform incident reporting tools to capture their hazards and near misses. Any incidents & near misses are logged via online forms with all data feeding into the platform. They are then escalated and investigated by the relevant stakeholder to understand the root-cause and implement the relevant safety measures.

As with regular incidents, near misses and hazards can also be linked to employees, sites, business processes, and policies – to keep a clear record of their likely impact if they were not captured and managed.

Extending your incident process to capture hazards and near misses is the best way to lower overall incident rates and prevent accidents and injuries. By implementing relevant controls & policies in advance of an incident occurring, companies can be more proactive in their approach and implement sufficient safety measures.

3 Implement Effective Safety Policies & Training

Having a comprehensive, up-to-date library of policies and procedures is an effective way to ensure that staff are acting in accordance with safety requirements. Policies should be clear and prescriptive and supported with any relevant training to ensure employees understand how things should be done. Clear communication of policies & procedures is key - employees need to feel well informed about their specific responsibilities. Staff must be constantly aware of potential risks and understand the proper procedures to mitigate them.

Policies and processes conceived in a boardroom without consulting the wider business are typically short-sighted leaving workers feeling disenfranchised and unwilling to adopt them. Multiple staff should be involved in creating and approving policies – making sure policies not only tick the compliance box, but they work for those who must follow them as part of their daily role. Every employee should be informed about safety policies, procedures, and best practices and employees should be encouraged to ask questions and provide feedback.

Large firms dealing with multiple policies often use GRC software to implement an effective policy management process. Policies are uploaded into the platform to create a 'policy library' capturing details around owner, publication & expiry dates, and the business processes, people, systems, and departments it is relevant to. Approval workflows can be set up to obtain policy sign off and ensure accountability, and the system provides a time stamped history of all revisions and changes.

Software can play a powerful role in communicating your WHS policies and procedures. Content management functionality ensures policies are current and communicated, and stakeholders can easily access the latest version online. Attestations can be set up to indicate that employees have read and agreed to the policy, this information can be useful for employee tribunals. The solutions also provide access to real time dashboards & reports - together with a robust audit trail - to provide proof of compliance to regulators.

Policies and training should always be backed by employee engagement to drive a safer culture. Your employees should understand that when creating a strong WHS culture, they have a vital role, especially in giving feedback and providing suggestions for improvement.

4 Proactively Manage Risk

When an organisation integrates its health & safety processes with wider enterprise risk management, it puts safety at its core. Effectively managing risk is key to improve safety credentials. Workplace health & safety is a critical component of ERM. In many mining organisations, health & safety is often one of the biggest risks. It is therefore critical that these two core corporate functions are fully aligned.

The mining sector is strewn with risks, from explosions, falls, and collapses, to noise & dust and heavy machinery accidents. These risks must be carefully monitored and controlled to improve safety and ensure operational efficiency. Organisations must have an active risk register, perform regular risk assessments, monitor risk levels, and set controls to reduce unwanted risk. Most organisations will use a GRC platform to implement a best-practice risk management process.

These intuitive solutions enable organisations to set up a comprehensive on-line risk register, where multiple departments & stakeholders can be involved during every stage of the risk cycle from identification and analysis to evaluation and response. Teams can utilise online risk assessment templates & questionnaires to calculate the likelihood, severity and impact of risk and generate risk ratings. Transactional & operational data can be pulled into the solution from other systems & data sources via API connections - enabling teams to set Key Risk Indicators (KRI's) and define risk tolerances based on real data. This empowers organisations to define a risk appetite framework & operate within it.

Once the system is established and the risk register is completed, teams can set controls to monitor risk on an ongoing basis and automated notifications & alerts are sent when the degree of risk reaches an intolerable level. Teams can run instant reports and view live dashboards to get a complete overview of their risk profile and drill down into the detail to address problem areas. Software reduces the administrative burden of risk management and provides holistic data and trends via dashboards & reports that put actionable insights at your fingertips.

Modern GRC platforms enable teams to integrate risk management with their incident reporting processes, helping firms to understand which risks turn into full blown incidents and identify any new risks that need to be added to the risk register and controlled.

5 Ensure Compliance with Safety Regulations & Standards

To maintain a safe working environment, you need to ensure staff are following safety regulations and standards. From globally applicable Health & Safety standards like ISO 45001, OSHA requirements, and HSE regulations to guidelines about internal policies and procedures - monitoring compliance is essential to maintain safety standards.

Firms should establish an obligations library to monitor compliance, many firms implement this using GRC software. Obligations are logged using online forms, with all information feeding directly into the tool. Teams can log expiry dates, add links to relevant business processes, assign ownership, and upload supporting documentation. Empowered by this database of regulatory requirements – which is updated in real-time – the teams can implement workflows and tasks to monitor compliance and address problem areas. Regular compliance safety checks can be carried out via online forms that feed directly into the platform.

6 Learn from the Past

While fundamentally safety is a people problem, a positive safety culture is heavily influenced by metrics. Mining firms with safe cultures focus on continuous improvement efforts – learning from the past to improve the future. Teams need access to sufficient data to understand their current accident & incident rate and the inherent causes to proactively improve safety in the future. They need to understand the risks staff are facing and put controls in place to mitigate the risk and bring it down to a tolerable level. Firms also need to understand the impact of non-compliance on safety procedures, policies, and regulations.

Getting access to the right data to provide these detailed insights can be a challenge – especially when firms are relying on manual outdated processes like spreadsheets & emails with limited data, poor data quality, and no central point of oversight. Mining organisations that use GRC software to manage key aspects of health and safety across risk management, incident reporting, and compliance are well placed to generate insightful reports and view instant dashboards on historical data that can guide their decision-making regarding new safety measures.

Using the latest GRC technology, firms can pull multiple reports on incident data, making it easy to understand the root-causes of incidents. They can run in-depth reports on inherent and residual risk levels and monitor control effectiveness. They can even run reports to understand upcoming regulatory changes and areas of non-compliance. Having access to that data and understanding where the problems are enables firms to be proactive in implementing safety measures to prevent accidents and protect staff.

In the growing data-driven world, it makes sense for employers to tap into technology to ensure the efficient health and safety of their employees. This is especially critical in the mining sector where workers are working externally on different sites and mines, which poses a greater likelihood of workplace injuries.

Make Your Ideal Safety Culture a Reality

In the mining sector, fostering a culture of safety isn't just a regulatory requirement but a fundamental imperative for longevity and success. The critical materials that this sector provides plays an intrinsic role in our economy. By meticulously addressing every facet of safety from incident reporting to risk management, and from compliance monitoring to continuous improvement, companies can effectively foster a culture of safety.

Implementing robust systems and processes, underpinned by modern technology, provides a structure and framework for the whole organisation to be involved in health & safety. By embracing innovative solutions like GRC platforms, organisations can empower their workforce to report incidents promptly, identify hazards proactively, and adhere to safety regulations effectively. Moreover, these platforms facilitate the seamless integration of safety practices into everyday operations, ensuring that safety becomes ingrained in the organisational DNA from the top down and bottom up.

The benefits of prioritising safety extend far beyond financial savings; they encompass enhanced employee morale, improved brand reputation, and ultimately, the preservation of human lives. As the mining sector continues to change, so too must its approach to safety. By embracing a holistic safety culture that values communication, training, compliance, and learning from past experiences, organisations can mitigate unwanted risk while safeguarding the well-being of their most valuable asset - their employees. Embark on a journey towards a safer future, where every worker returns home unharmed, every day.

About Camms

Camms can support your organisation to work towards building a safer culture. Our workplace health & safety solution enables firms to manage risk, log and resolve incidents, operate in line with safety regulations, and implement effective policies – all in one platform.

For more information

Visit Website   **Request Demo**

Camms.
A Riskonnect company

cammsgroup.com