Workplace Safety in High-Hazard Industries

Mini-Documentary: Mining for Safety

Mining is one of the most dangerous industries in the world, with an estimated 12,000 work-related deaths per year, according to the International Federation of Chemical Energy Mines (ICEM). Mining employs just one percent of the world's population, but it is responsible for eight percent of all work-related fatal accidents.

The U.S. Bureau of Labor Statistics rated mining as the 10th most dangerous job in the world in 2013, after other high-fatality trades such as roofing, piloting and professional fishing. Surprisingly, for mining, this is actually good news: After ranking for many years as the most deadly profession, tougher regulations and safety standards in many countries have helped the mining industry improve its safety performance. However, particularly in countries with lower safety standards, there are still far too many mining fatalities. Industry executives wrestle with the heartbreaking challenge that, far too often, accident victims include experienced workers well trained in the risks, rules and safe practices. A possible theory for fatal accidents among populations of experienced workers is complacency – a false sense of security borne of dangerous habits and engrained risky behaviors.

DuPont Sustainable Solutions (DSS) collaborates with companies in high-hazard industries, such as mining, oil and gas, and petrochemicals, by sharing practical, real-world experience and best practices to help improve their safety, productivity and environmental management systems. As seen in the mini-documentary, “Mining for Safety,” the employees of the Anglo American mining company’s nickel mine in Barro Alto, Brazil, were part of a collaborative effort with DSS to improve workplace safety – at every level, in every process.

In order for businesses like Anglo American to improve workplace safety and create a safety culture, every aspect of the business must be pulled into sharp focus and evaluated through the lens of a unifying workplace culture that is driven by a set of core values unique to the company.
A Paradigm Shift to Safety

Achieving an organization-wide commitment to safety requires a paradigm shift in the way businesses operate. DSS methodology emphasizes that safety must start at the top, with a leadership team directed with clear vision and a steadfast commitment. The responsibility for safety should not be siloed into a separate safety committee; it must extend to line management and employees and be shared by every employee.

Instilling a culture of safety goes far beyond reducing the number of injuries in the field. Organizations must examine their safety model from three perspectives:

- **Leadership** – How does management lead employees to safety excellence?
- **Structure** – What organizational structures enable that pursuit of excellence?
- **Processes and Actions** – What actions does the organization take on a regular basis to increase safety performance?

The greatest challenge to creating a safety culture is practicing felt leadership: all management, including executive leadership, must demonstrate an unwavering commitment to safety regardless of business conditions. Leaders never choose between productivity and safety but understand that working safely is working productively. Felt leadership is achieved through:

- **Clear and meaningful policies and principles** that confirm safety as a priority and facilitate clear decision-making;
- **Safety goals and objectives** that are a prominent part of standard operating procedures;
- **High performance standards** that apply to all safety matters and are obvious and known to all employees; and,
- **Engaged Leaders** that interact with all levels of the organization to understand beliefs around safety, introduce new knowledge and processes, and build trust.

Sustaining a safety culture requires a plan that keeps safety top of mind in the organization. The safety culture must be sustained by continuous learning and development, which requires a commitment of time, leadership and energy, and accounts for employee turnover.
Actions Speak Loudest

Even with strong leadership and an enabling structure in place, organizations must act to be effective, with practices that include:

- Ongoing development programs that transfer knowledge and skills to help employees recognize unsafe situations, correct them and work safely;

- Comprehensive audit programs with second- and third-party participants to proactively identify gaps in their processes and ensure that the safety culture remains strong and is embraced by the whole organization;

- Effective communication programs that keep safety top of mind throughout the organization; and,

- Both reactive and proactive processes to analyze and prevent safety incidents. For example, incident investigations help organizations learn from what has happened, while regular safety observations help prevent potential hazards. In both cases, the key is to socialize the findings and show strong discipline in implementing recommendations.

People, Planet and Profits

Safety becomes second nature when a culture is fortified by an ethical imperative that puts people and the planet first. Nothing else – neither profit margins nor competitive advantage – trumps this value for human safety and well-being. While this belief has an increasingly broad acceptance across industries and around the world, what is often overlooked is its influence on the organization beyond safety performance – how it impacts the bottom line. Good safety fosters good business in many ways.

In the end, safety is about protecting people, their lives and their livelihoods. For Anglo American, all their hard work paid off: In 2010, the Barro Alto mine was recognized by the industry as the safest mine in Brazil.