

# Focus on Safety

The right behaviors are vital to mining safety and don't always get the focus they deserve

Safe production is being recognized across the industry as the reasonable bench mark of performance. The industry recognizes it as production at the right cost and quantity without sacrificing safety performance. As part of the awareness of its corporate social responsibility, the industry is making great efforts to share best practice. Witness Anglo American making its industry award winning Safety Risk Management Program (SRMP) available to the rest of the industry in May last year. Since the inception of the program in 2008, Anglo American recorded improved safety with a 29% reduction in fatalities and a 27% reduction in the number and severity of lost-time injuries – a truly impressive result.

However, the industry is still struggling to prevent individuals from committing unsafe acts, which inevitably lead to an accident, incident, near miss or fatality. What is the next step? What more can be done to ensure unsafe acts are not committed? Safety issues are predominantly human error – behavioral – but the traditional approaches to solving this issue e.g. minimizing human error through training, safety campaigns, safety auditing and disciplinary action, have at best maintained the status quo. Eliminating human error is not simple; it is extremely complex and has varying symptoms, many of which will be closely interlinked, with the outcome of one directly causing the next.



## **Establishing the right behaviors at all levels is vital**

Extensive work has been done in mines to reduce the opportunities for error and failure, through the implementation of policy and procedures rather than thinking of safety as a standalone exercise. Managers are now looking at how to incorporate safety into every facet of their operations, in order to achieve “Safe Operations” as opposed to purely minimizing the opportunity for accidents to occur. This “next step” requires a change in mind-set and behaviors.

Research demonstrates that the majority of accidents are caused by an individual committing an unsafe act, generally one that he had been told and shown not to do, where there are existing policies and procedures governing conduct. Managers are now far more focused on improving individual behaviors, establishing and enforcing the right behaviors and mind-set to achieve safe operations. This may require the use of a combination of measurements and observable behaviors. New ways of measuring safety must be developed and installed, as well as the criteria for a true culture of safety. Systems of measurement can be designed to increase the focus and adherence to the right safety behaviors – for example, unifying the safety and production bonus structures so that crews cannot achieve a 100% production bonus without operating in a safe way – others will be more operational / behavioral in focus, such as clarifying the role that front line supervisors and general management plays in ensuring their crews work safely and productively. These are often seen as separate goals, with responsibility for safety often unclear or poorly defined.

Over the course of our operational reviews, we have found that supervisors’ management styles and behaviors have a significant impact on individual crew behaviors and performance. An effective supervisor management style is dependent on how he plans, assigns and follows up on work, and the amount of time he spends with a crew, together with the degree of supervision he gives the crew. We have found this has a direct impact on the individual’s and crew’s awareness and adherence to safety considerations. What we also consistently find is that the front line supervisor spends less than 20% of his day actively managing his crew in the workplace. In addition, much of the supervision is done after the shift starts, so the crew is not necessarily being set up for success.

While much can be done to improve this in terms of reducing administrative tasks to free up supervisor time to supervise, we have found that in order to improve production output, worker productivity and safety it is vitally important for the supervisor to plan and assign work effectively and to be present at the start of the actual work, so that discussion and observation can take place to ensure that the crew or individual will actually work safely and productively. The four solutions for improving supervisory effectiveness in dealing with safety issues revolve around:

- Clarity of roles and responsibilities and authorities,
- Adequate training (including training on interpersonal skills and crew resource management),
- Management support and
- Active monitoring (not focused on disciplinary action).

By looking at how supervisors supervise, combining this with effective front line planning skills and tying these skills and behaviors into effective production systems and methodologies we can effectively minimize the opportunity for error and failure, thereby preventing employees getting into an unsafe situation in the first place.

Unless managers and supervisors demonstrate by their own behaviors that safe production is of primary importance it will not be embraced by the workforce as a whole.

## **A proactive approach is required not a reactive one**

Management view safety as paramount but in many cases effective management action is only taken in the event of there being an accident or incident. Near misses are not always reported and sometimes there are no clear processes for reporting them. Consequently, employees assume no action would be taken anyway.

In one mine we introduced a supervisory training and education program, and an employee awareness program, focused on improving behaviors and safety

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awareness. Part of this program was the introduction of a robust near miss reporting program, knowing that this would reduce incident lost time and injury. The education program highlighted the importance of “Safe Production” and reporting near misses. An easy and accessible process for reporting near miss incidents was introduced. Each near miss was assessed and processes were adapted and improved to avoid recurrences. As a consequence of this program, near miss reporting went from 5 a month to 80 a month and incident lost time dropped by 20%. Morale also improved markedly as workers saw managers taking a proactive role in improving safety. This demonstrates that human error is a symptom, not a cause of failure. It is a consequence of deeper trouble. Human error is not random – it is systematically connected to features of people’s tools and tasks.

### **Safety and efficiency are mutually supportive**

Clearly, key performance indicators (KPI's) play an important supporting role in ensuring safe and efficient production as they highlight areas of potential failure and enable better preventative maintenance to be scheduled at times when it has the minimum impact on production and safety.

At one mine we worked in recently, an increase in preventative maintenance of 15% resulted in a decrease in emergency work orders of around 30% and a decrease in unscheduled downtime of 24%. These operational improvements achieve significant benefits from both a safety and operational point of view. Although much of safety is focused on procedures and systems, we believe the key to SAFE production is embedding the right behaviors.

### **Looking forward**

There are no magic bullets due to the human element. However, research says if you use the information available on safety, conduct investigative tasks sensitively and tailor programs to local conditions, you will reduce human error potential and improve safety; i.e. person / machine interface risks can be limited to one person at the machine, while a poor culture can pervade the entire organisation. Our approach to achieving safe production is fundamentally about driving and embedding the right behaviors. For behavioral change to occur, management needs to lead by example. Cynthia Carroll, CEO of Anglo American, has demonstrated passion and commitment in dealing with mines and mine management that fail to meet safety standards. Mines are implementing policies and procedures that encourage best practice – but traditional approaches to solving the issue; minimizing human error through training, safety campaigns, safety auditing and disciplinary action have all, at best, maintained the status quo. The next step is to address cultural issues. Safe production needs to be underpinned by a proactive and preventative activity rather than a reactive and maintenance one. Only then will the aim of zero injuries become a possibility.



## **Alexander Proudfoot's Impact**

Regarded as a leader in our field, we are proud to serve over half of the global mining industry by market capitalization.

We design and implement programs to help mining company executives run their operations more effectively. Our focus on execution enables our clients to achieve their growth targets, revenue and profit goals with greater speed, predictability and control.

By engaging supervisors and employees across all levels of the organization, we optimize the value of mines and processing operations while enhancing their safety, yield, efficiency and community standing.

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