

# Focus on Safety

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

Safe production is being recognised across the industry as the reasonable bench mark of performance. This is recognised 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 Programme (SRMP) available to the rest of the industry in May last year. Since its inception in 2008, Anglo American credits its effort to improve safety with a 29% reduction in fatalities and the number and severity of lost-time injuries by 27% – a truly impressive result.

However, the industry is still struggling to prevent individuals from committing an unsafe act, which inevitably leads 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 – behavioural – but the traditional approaches to solving this issue e.g. minimising human error through training, safety campaigns, safety auditing and disciplinary action, have all 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 behaviours at all levels is vital

Much 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, so they achieve “Safe Operations” as opposed to purely minimising the opportunity for accidents to occur. This “next step” requires a change in mindset and behaviours.

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 behaviours, establishing and enforcing the right behaviours and mindset to achieve safe operations. This may require the use of a combination of measures and observable behaviours. New ways of measuring safety must be developed and installed, as well as the criteria for a true safety culture. Measures can be designed to increase the focus and adherence to the right “safety” behaviours, 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 / behavioural in focus, such as clarifying the role that front line supervisors and general management plays in ensuring their crew works safely and productively. These are often held to be separate, with responsibility for safety often unclear or poorly defined.

Over the course of our operational reviews, we have found that supervisors’ management style and behaviours have a significant impact on individual crew behaviours 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 both 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 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 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, tying these skills and behaviours into effective production systems and methodologies we can effectively minimise 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 behaviours 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 there is sometimes no clear process for reporting them. Consequently, employees assumed no action would be taken anyway.

In one mine we introduced a supervisory training and education programme, and an employee awareness programme, focused on improving behaviours and safety awareness. Part of this programme was the introduction of a robust near miss reporting

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programme, realising that this would reduce incident lost time and injury. The education programme 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 programme, 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 behaviours.

### **Looking forward**

There are no magic bullets because of the human element. However, research says if you use the information available on safety, investigative approaches sensitively and tailor it 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 behaviours. For behaviour change to occur, management need 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; minimising 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.



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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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