

A safety plateau at Modikwa

by S. O'Connor*

Introduction

When one looks back and does assessments of what has been the key ingredient in achieving success in our safety efforts, there are many issues that spring to mind and cover a wide array of elements. One does not know which has the ultimate maximum effect.

In his presentation yesterday, Alan Peers, our SHEQ leader, covered a lot of detail with the way we are managing safety at Modikwa.

I have attempted to identify some of the key essentials in making the mine safe.

Passion

Safety is addressed with a passion that is unbelievable at times. When I get phoned because an incident has occurred and in reporting the incident, there are already action plans being put in place to prevent re-occurrences, you understand the commitment to put employees' safety first. You hear the disappointment in your subordinates' voices when they have to share the fact that an incident or accident has occurred.

We do not work to achieve superior safety performance records of million of shifts or to increase the time interval between fatal accidents. We have developed a passion to work safely because we do not want to have any of our employees killed in a mine accident at Modikwa. Their safety and well-being are paramount and the more intensely we approach keeping their safety intact, the more passionate we will be about ensuring this is realized.

The memorial plaque that we erected in our HRD training centre bears the names of the 9 employees who have been killed in mine accidents at Modikwa. All these occurred between 2002 and 2006. When we unveiled the memorial plaque we stated there is no place to add any additional names, and we mean it. The 9 who had died are already too many. In training sessions employees are asked to stand and make a vow that they will do everything in their power to prevent injury to themselves or their colleagues. We have acknowledged to the families and loved ones of the deceased that their deaths have not been in vain—we have learnt from them and placed standards and procedures to prevent re-occurrences.

Keywords
Zero mind-set, passion, relationships, communication, values, pride.

Communication

There seems to be a real situation of 'overkill', for want of a better word, in various ongoing communications about safety. Shaft meetings are held with the entire workforce on a monthly basis; monthly and weekly meetings are held with miners; weekly meetings are held with shift supervisors; and my weekly meeting with the heads of department begin with a safety review and reporting of all incidents for the week on the mine. This review results in safety flashes going out to communicate the incidents and measures taken to avoid repeats.

We also have a higher level of understanding with English being used as our official language and matriculation as a minimum standard for employees.

Management failure

We address issues as if we have failed in all cases and ask what can we do better to prevent reoccurrences. These measures include a regular review of standards and procedures and the use of improved and new technology.

We believe we are operating a first-world blast initiation system, which was initially introduced to overcome premature lightning induced blast initiation. We have a system where we use a toroid to induce current at a certain frequency magnetically into our instantaneous electric detonators. By doing this, we have eliminated the possibility of any stray current, be it lightning induced or direct contact with electric wiring underground, entering our centralized electric blasting system. Modikwa has been on shock tube since its inception and our employees are not aware of the smell of fuse and igniter cord.

We are currently involved with our explosive accessory suppliers to produce a 4-way clip that will totally remove detonators being on the face clamped to the shock tube.

At Modikwa we own everything we do, and with every incident we design ways and means of doing it differently to avoid any potential repeat. I would like to quote an example where we had an incident that could have been a double fatality on surface. Two technicians arrived at the diesel

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refuelling bay in an LDV to pump the tyre pressure on one of the tyres. An LHD was busy refuelling and they approached the operator to advise that they had parked in front of his elevated bucket, and he must not drive off until they were finished. When the LHD refuelling was finished, the operator forgot about the LDV and pulled away, striking the cab of the unit, before he suddenly remembered and braked immediately.

In the report of this incident we decided to move the pneumatic tyre pressure point away from the diesel refuelling bay; we installed convex mirrors so the driver could see beyond his elevated bucket.

The PDS (personnel detection system), which is installed in the cap lamp battery was not there as the technicians were on surface; all our secondary fleet vehicles are now installed with a PDS so that the primary fleet operators will be alert to the presence of a secondary fleet vehicle, whether on surface or underground.

Relationships

At the end of the day the safety on the mine is in our hands—ours refers to the management on the mine, the labour organizations and government in the form of the DMR office in Polokwane. We work hard at maintaining a good relationship with our labour organizations as any stresses or unresolved issues can affect negatively the relationship and then ultimately on their members in the workplace.

As stated last year at the Hard Rock Safe conference, I have the saying that I have developed with the labour organizations to enhance our relationship and to show support for each other, and that is displaying my index and middle finger joined and saying: 'Staan saam!'

There is a physical demonstration of this support for each other and often when we do support one another the flashing of the two fingers in acknowledgement is used to display our gratitude for that support.

Making mining safer

Ultimately, we can make a huge contribution to safe working practices by ensuring our mining is carried out in a safe manner. The most essential criteria are that development is being done in the right place at the right time and at the required rate, by creating reserves on the right half levels and in the required quantity to afford the depletion rates; doing our equipping and mining sequences adequately; and in reviewing the planning, to focus on the detail and do the various risk ratings so that we can predict problem areas and take timely corrective action.

This has surely being a major contributor to our reduced fall of ground incidents as the mine planning shows a huge input by qualified personnel and a significant hunger for advanced geological information in order to equip ourselves better to make the correct, safest decisions.

Values

At a relationship building workshop, we all agreed that our values, in living and displaying them, were essential to make a relationship successful. These were itemized as safety, trust, respect, care, commitment and integrity.

We had an industrial theatre roll-out of the values at all the shafts and plant involving both the night shift and day shift personnel. The industrial theatre was well received and we often refer to how we can enhance and display these values to indicate a high level of commitment to ensuring our culture encompasses the values in totality.

The care value shows in our safety performance as we really care for our employees. It is maybe made more important by the fact that they all have families and we see them not just as a resource but as individuals with loved ones, with responsibilities and as breadwinners on whom their families depend.

Pride

At Modikwa we are extremely proud of our safety achievement and do not hide the fact that we have achieved the 6 000 000 million fatality free shifts or that we have remained fatality free for over 50 consecutive months. This is displayed in the public domain and in doing this we place ourselves under increased pressure to continue delivering on that proud record. I have a constant reminder as I send out a weekly brief encouraging and motivating employees to excel and to continue with this superior safety performance.

I have an e-mail signature that states: 'Proud to be a 6 000 000 Fatality Free Shift Achiever'—as stated last year at the Hard Rock Safe Conference at Sun City. I would not like to have to remove that, but will gladly change it to 7 000 000.

Employees on Modikwa still wear shirts that were awarded to employees for the 2 000 000 achievement and jackets for the 3 000 000 achievement with pride. Our labour organizations do not miss an opportunity to share with colleagues of other mines that we are doing extremely well with safety.

This constant reminder that we are displaying a good safety performance is part of the drive to continue entrenching it and ensuring we do not reverse the performance but ultimately achieve the concept of 'Zero Harm'.

Safety plateau

I have given my presentation the title of safety plateau. The reason for this is that even though we have achieved phenomenal performance, especially with what we regard as the '6 Killers', our safety has reached a stage where we seem to be stagnating and have reached a level where we go through each month with a disappointing 5 or 6 lost time injuries.

This is unacceptable and we know that for every lost time injury there are dressing case injuries and incidents which must make us vulnerable. It is for this reason that we have started a new intervention with the use of Robin Banks, an international motivational speaker. Robin is busy with three interventions aimed at a large segment of the workforce to influence them through their mind power and to increase the positive outlook on the mine and on each other.

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We believe we are going to get excellent returns out of this intervention as it will certainly reinforce our safety performance; deliver a new sense of pride in our safety achievement; instill a high level of morale in our workforce; and affect the employees' lives in both their work and their social lives.

The content of Robin's presentation shows how powerful our thought processes are and how best we can concentrate and energize those thoughts with the most impact. Our minds are the initial source of any creativity or design and unless our thoughts are focused and controlled, we will never be able to deliver the results we actually want.

We already experienced an immediate return on this intervention with a vast improvement in the 'plateau' of lost time injuries when they reduced to 1 lost time injury in July and in August we had our second month in our history of being totally lost time injury free. The mine worked a total of 43 days between lost time injuries. And of course, September saw us achieve the 7 000 000 fatality free shifts, another milestone on our journey to 'Zero Harm'.

Conclusion

It is with immense pride that we are attending the second Hard Rock Safe conference and receiving recognition for our safety efforts yet again.

I would like to conclude with reference to my closing comments last year at the first Hard Rock Safe conference at Sun City. South Africa is a world leader in hard rock mining and imagine if we can come back next year and say we are the world leader in safe, hard rock mining. I think we have progressed down that road with some significant milestones being met. To have had 45 Million Fatality Free Shift awards in one year and to have experienced a significant reduction in mine fatalities over the recent years shows we are progressing and doing this at a fairly accelerated rate.

To all our colleagues, may you continue to strive for a superior safety performance. We know that our challenging position is being competed for by vastly improved safety performances. We are not competing here, we believe we are setting a challenging standard that we would want everyone to aspire to achieve. Then we know the South African Hard Rock mines are being mined safely. May your safety successes become a reality.

Acknowledgements

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