

Chapter 10

Industrial Perspective on the Seminar: The Viewpoint of a Mining Expert

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Abstract Based on his extensive expertise in the mining industry, Jonathan Molyneux raises the issue of the importance of operational experience, besides acquiring formal safety qualifications, to improve safety performance in high-hazard industries. He highlights the paradox by which the influencing aspect of the work of “safety professionals” as valued advisors is somehow challenged by the fact that they have to meet the compliance agenda and are therefore sometimes perceived by shop floor staff more as a “procedure-police” than as coaches. Integration versus differentiation with safety improvement strategies tailored for specific local contexts is also discussed.

Keywords Trade skills · Compliance to standards · Balance between goals and incentives

Kudos to FONCSI for bringing together a powerhouse of experience to wrestle with a provocative aspect of industrial safety improvement. Delegates joined from a cross section of disciplines (industrial psychologists, industry safety practitioners and business improvement advisors) and industry sectors (chemicals, aviation, oil and oil services, medical and mining).

The focus of the workshop¹ was the “Professionalization of Safety” and the extent to which this might hold the key to advance injury and fatality reduction—a challenge all workshop attendees agree remains necessary and urgent, especially in high-hazard sectors, and despite improvements over recent years. A number of the participants had been involved in the Toulouse catastrophe in 2001² and had first-hand experience of the investigations and consequences. All participants had in

¹The two-day international workshop mentioned in the preface, organized by FonCSI in November 2015 and highlight of the project that led to this book (editors’ note).

²The AZF chemical factory exploded in Toulouse, France, on 21st September 2001 (editors’ note).

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some way devoted a substantial section of their career to the prevention of similar incidents, as well as less headline-grabbing, but all too frequent events that result in the loss of life. Examples of experience which was shared by participants included:

- The design and roll-out of a safety improvement program across the worldwide operations of an oil services company. This highlighted the value of gaining investment support from a company's executive team, strong branding and communications, a dedicated project team and a well-defined and simple to understand set of tools and actions which, when adopted by the workforce, can create changes in behaviour and safety performance. This programme had produced marked performance improvement; and,
- The development and execution of a performance improvement intervention which had been run at 50 individual mine sites around the world. This work had revealed that the improvement challenges at each site, while bearing many similarities, were different. The focus had been on building alignment amongst the mine management team and persuading them to work together in a co-ordinated way on a small number of underlying aspects of how their workforce think and manage work activities. This approach had also demonstrated strong results.

It became apparent that each of these case examples had benefited from thought and investment, each had delivered safety performance improvements—and yet, all presenters acknowledged that much work remained to be done to reach a point of “Zero Harm” (meaning zero injuries). This topic itself provoked some discussion; the term has been adopted widely in a number of industries as a means of conveying the intent of safety programmes. While some participants saluted the good values the term embodies (that *no* injury is acceptable, and that *all* injuries are preventable) and the power this has in challenging the mind-sets of managers and workers, others pointed to the idealism of the ambition. This author has found that improvement efforts needed to be more obtainable and focused on specific issues and root causes influencing fatalities and incidents which have the potential to result in life changing injuries.

There was also some debate that challenged the widely endorsed safety incident ratio model (Bird's Pyramid). In mining this belief had historically led to safety improvement efforts focusing on the prevention of high-frequency/minor injuries with an assumption that work at this level would contribute to changes in behaviour which would ultimately reduce the probability of a fatality. More recent thinking is that this course of intervention is not as effective as applying more deliberate focus to the specific pre-cursors of fatal events themselves, which we now recognise are often different to the higher-frequency areas that have attracted attention when applying the pyramid model.

The concept of professionalising safety provoked two interpretations, each one contributing positively to the debate.

The first interpretation was the proposition that raising the level of professional standing, qualifications and perhaps staffing levels of people with roles devoted to

safety improvement would equip companies with a stronger, more influential and effective force for improvement. Participants pointed out that there are already well established qualifications and professional development tracks for safety—they also noted the recent trend of appointing people with operational experience (rather than formal safety qualifications) to senior safety function roles. These two perspectives seemed to highlight the potentially divergent challenges of having the:

- expertise to diagnose and define improvement strategies; and,
- ability to influence change and win the support of line managers who typically hold ultimate sway over the realities of work on the shop floor.

Could this discussion highlight the need for a team approach, and perhaps some caution over developing too narrow a professional profile?

In the author's experience from mining the role of safety professionals at operational level is typically divided between ensuring compliance to regulatory and corporate standards on the one hand, and influencing behavioural performance improvement on the shop floor (via leadership behaviours at managerial levels). A common challenge is that "professional" safety people are drawn to the technical demands of the compliance agenda, especially when audit results are typically seen as an indirect indicator of their personal performance. The paradox is that the influencing aspect of their work, especially when focused on a well-shaped improvement strategy, is usually more central to incident reduction, but it is an altogether more challenging, sometimes even abrasive activity. In mining we often find operations see their safety function colleagues as procedure-police, rather than as valued advisors and coaches; might improved "professionalization" be best focused on the non-technical aspects of the functional team's skill sets?

A second interpretation of the professionalization concept looked at how to integrate safety into operations. That is to say, the proposition that rather than concentrating investment on safety function professionals, a route to major improvement may lie in the integration of safety understanding, safety thinking and safety management into the mainstream of business and operations. This approach would encourage business decision makers to achieve a more considered balance between the likelihood of achieving their target commercial outcomes AND achieving safety target outcomes. Some workshop delegates felt that in many industries, this is not currently the case—another view was that many decision makers DO appreciate the balance, but are compelled by commercial pressures to make decisions which contribute to workforce risk, and they rely on the operational dexterity of their people to absorb, resolve and deliver (often referred to as "resilience"). This approach would suggest that the operational managers and front line supervision should be the targets for professionalization. With such an enhanced safety orientation, they might more naturally balance production and maintenance decisions with risk management, or better still, to integrate risk management into routine operational thinking and procedures. This way they would be better equipped to provide the right guidance to their workers and ensure that workers are genuinely set up for success in the workplace.

Towards the end of the workshop a provocative question was raised by one of the faculty; many industry executives have approved multi-year investments in safety training—yet they feel these investments have not been productive. They ask how they can yield a stronger safety performance improvement for their investments.

This question prompted an animated debate. The delegates remarked on the range of training options which might contribute to safety performance; new employee induction training, safety leadership training for operational managers, the use of risk control techniques at different levels in the organisation—and non-safety specific training in core trade skills which support the execution of good work with good tools leading to good results.

This author's energies have always been focused on safety performance *improvement* in mining. In most situations, diagnostics and solution development have highlighted training as a relatively *low impact* mechanism for creating performance change. It is typically an element of the corporate apparatus which supports the status quo rather than driving material improvement—aspects of training are often necessary for compliance and in mining we have seen situations where related training programs are them too cumbersome for the operations to keep up with, and participant feedback has revealed the sessions themselves to have made little lasting impact on how people perform their work and the decisions they make.

In mining, experience has demonstrated that to achieve sustainable performance improvement senior management and the architects of safety programs should consider:

- The intertwining of what makes humans the creative creatures we are with the balance of goals and incentives we put before workers; the pre-cursors to incidents typically lie with how the organisation is routinely run and the level of acceptance of hazardous activities that this incubates, rather than with the shortcomings or lack of judgement of the unfortunate individuals who so often appear to have “ignored the rule”;
- That each operation is unique; unique risk profile, operating culture and leadership dynamics. This means that creating sustainable improvement requires a tailored approach that targets the most appropriate improvement levers applicable to the individual operation—a local safety improvement strategy;
- Improvement strategies need to change how people think about their work, how teams work together and the decisions that individuals make; so they need to be led through a deliberate coalition between line managers and supervisors on the shop floor and their safety function advisors, rather than via a sanitised training setting; and,
- Interventions need to cut to the heart of how work is designed and scheduled, an increased sophistication in how teams identify and control the hazards in their work, and centrally, what level of exposure operational leaders are prepared to accept for their people.

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