

LEADERSHIP AND SAFETY MANAGEMENT PERFORMANCE

Carl Luttig
Managing Director
Zeal Consulting Pty Ltd

ABSTRACT

The practice of safety management has been variously viewed as a legislative necessity, a technical speciality or just a subset of HR.

While no-one in their right mind would argue the value of a safe and healthy workplace, achieving this worthwhile goal has escaped all but a few.

It needs more than a set of rules and regulations. It needs a shared mindset and a set of habits that go beyond a single company to the country as a whole.

Being successful in safety management requires a discipline that is founded on shopfloor observance of the "rules of the road", based on rigorous risk assessment, and supported by committed leadership from the very top.

As with any "discipline", there is a distinct danger of losing sight of the main game of avoiding injury and disease. Higher visibility can engender complexity, as new models and theories seek to improve on prior unsatisfactory efforts. Simplicity of intent and application is fundamental to everyday acceptance.

To be successful, safety management must be positioned as a strategic business tool, integral to a company's mainstream Business Plan. Action plans must be based on sophisticated analyses of company and industry-wide data. Just as safety on the roads is governed by a combination of driver instruction, licensing, vehicle roadworthy testing and road legislation, workplace controls and employee behaviours must be governed by a combination of training and certification, engineering standards and work procedures.

This paper presents an integral approach to safety planning and management, and includes discussion of the role of information systems and human factors.

INTRODUCTION

In this paper I want to argue that leadership is the key lever in realising higher standards of safety management performance in the workplace. Leadership and culture are essential if you want to boost safety effort. Yet, how often do we hear the

word 'leadership' used in discussions about safety? If you analyse the papers presented at the Fourth Biennial Congress and Exhibition of the National Safety Council of Australia in 1996 you find that in over 500 pages and 202,827 words, the word 'safety' is used more than 1,200 times, and 'management' over 1,000 times (Whiting, 1996). Yet, the word 'leadership' rarely appears. 'Leadership' and 'culture' are words that have not yet gained currency among safety practitioners... and results in workplace safety reform reflect this.

THE NEED FOR CHANGE

Let's look at the current condition of safety management performance (SMP) in Australia. A range of statistics confirms that SMP in Australian industry is unsatisfactory. Worksafe Australia (1995) has estimated the number of work-related fatalities in Australia to be as high as 2,700 annually. The annual cost (direct and indirect) of occupational injury and disease is estimated to be between \$15 billion and \$37 billion per year, or about 4% and 9% of the gross domestic product. Every year, over 170,000 new workers' compensation cases of permanent and temporary damage are reported nationally. Since 1978, the cost of workers' compensation claims has risen significantly in real terms (Worksafe Australia, 1993).

Work injury and disease can result in death and varying degrees of impairment to workers. Industry bears the largest cost of occupational injury in Australia, 40%, compared with 30% each for government and the community. The costs include payments to workers while absent from work or on restricted duty, medical costs, higher insurance premium, rehabilitation costs, administrative costs, and litigation costs.

In the late 1980's, the number of days lost through injuries and diseases in the New South Wales construction industry was estimated to be 18 times more than that caused by industrial disputes in the same industry and 7 times more than that in the country (Ore, 1992a). Yet, industrial disputes often receive more media coverage than occupational health and safety matters.

Our current strategies for reforming workplace safety are not delivering. Conventional approaches to health and safety (e.g., safety legislation, workers' compensation, common law, enterprise agreements, social security, and insurance markets)

have been shown to have major deficiencies, as outlined below:-

Health and safety legislation has little impact on reducing the incidence of occupational injury and disease (Quinlan and Bohle, 1991; Brooks, 1988, 1991). It is a common belief that safety legislation is too prescriptive, too inaccessible to enable employers to clearly understand their duties, inconsistent across jurisdictions, and entails high compliance costs.

About one-eighth of Australian workers are not covered by workers' compensation legislation.

Compensation payments rarely reflect the true cost of injuries.

There are several weaknesses in the operation of insurance markets as outlined in an Industry Commission (1993) inquiry on the Australian workers' compensation system. Of particular interest is the difficulty of establishing, in many instances, that the breach of the duty of care by the employer caused the loss suffered by the injured worker.

Lost time injury frequency rates (LTIFR), while necessary, are not sufficient for transforming workplace safety. They are at best a means to an end and not an end in themselves. LTIFR can give a false impression about a company's safety performance, partly because low probability/high impact incidents are rarely taken into account in the calculation. This is an important problem, given that these high impact incidents, such as personal permanent damage (PPD), account for only 13% of injuries but represent 80% of injury costs.

THE NATURE OF CHANGE REQUIRED

As part of the new leadership driven safety culture, management must start thinking beyond LTIFR, audits, engineering designs, and regulations. All these are important aspects of injury control, but

what can make a real difference in prevention efforts is leadership and the development of a culture geared at transforming workers and management attitude, behaviour, and motivation about safety. We need to institutionalise a leadership driven safety culture capable of changing the will and intellect of workers and management. When we think of safety this way - as a cultural phenomenon - we are better positioned to improve SMP and cap the costs of injuries and diseases.

The goal of safety leadership should be that all categories of employees and management internalise a culturally based safety value system. It is through such an internalization process that we can start changing workers from thinking of accidents as something that "will happen to others" to seeing accidents as something that "will happen to me". So, effective safety leadership is about generating a cultural re-awakening in workers, integrating safety into the conscious and subconscious behaviour of workers, both at work and outside work.

A FRAMEWORK FOR SECURING BETTER SAFETY PERFORMANCE

The LAD model (Luttig, 1996) is a framework for achieving higher standards of workplace safety performance. The model comprises three interrelated layers of efforts: leadership, analysis, and discipline. The more effective the application of these efforts (along the horizontal axis) the higher the level of safety performance or movement from unsafe culture to safe culture (along the vertical axis). Working with one layer brings into focus the needs in the other layers. The more successful business organisations are at integrating and managing all three layers the better their safety management performance.

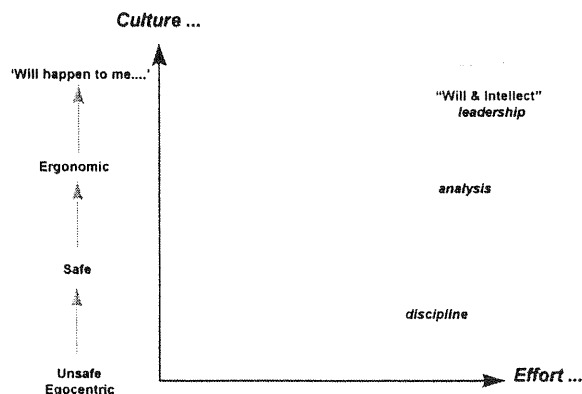


Fig.1 LAD model for Achieving Better Safety Management Performance

The first approach in safety is to establish a discipline base (D) - the foundation for transforming worker's thinking and behaviour around risk. This means developing identification and control procedures around hazard-specific risks, measuring the risk magnitude, and monitoring the effectiveness of controls. The resulting discipline base will reflect company safety standards and policies, and national occupational health and safety codes and standards. Once standards and policies are agreed, site supervisors must ensure that workers understand the rationale for each standard and follow the established procedures. This integration of both physical and social engineering systems provides a strong capability for producing a solid discipline base.

To reap the intended returns over time in the discipline base, leaders must characterise injuries and damaging energies meaningfully. This is only possible with a dynamic and informed injury surveillance-based analysis of risk (A) - an analysis which enables leaders to learn from and avoid repeat of key events. A Greek philosopher once encouraged his followers in this way: "on the occasion of every accident that befalls you, remember to turn to yourself and inquire what power you have to turn it to use". A good surveillance system provides opportunities for this type of reflection and learning.

Key statistical indexes are important for building effective safety leadership and establishing safety performance targets which can then be communicated widely across the organisation. Key indexes include the following:-

- the number of PPD cases (fatal and non-fatal)
- lost time damage (injury and disease) frequency rates
- workers' compensation costs (WCC) as a percentage of labor costs, and
- WCC per injury and disease.

Targets need to be established from these indexes, reviewed regularly and used to determine the safety performance for various levels of an organisation. For instance, reducing a fatal injury rate of 3/1 million hours worked by half in three years or cutting a lost time injury frequency rate of 5/200,000 hours worked by a third in two years.

The intelligent use of data is key in safety leadership. Lord Robens (1972) has noted that companies with better data on workplace hazards tend to pay more attention to safety, regardless of external regulation. The saying that "what gets measured gets done" is relevant to the analysis dimension of safety management.

Analysis and discipline alone are not sufficient to achieve significant improvement in safety performance. A third layer of effort is needed: a safety leadership (L) that motivates and pilots the whole system that drives the safety culture. Leaders have a responsibility to integrate safety into the totality of the management structure and process. From a human perspective, safety leadership is about saving lives and minimising injury; from a business perspective, it is about managing the most important element in the production system. As such, it should be a key concern to the boardroom and across all layers of management.

Recent studies support the importance of safety leadership. Simard and Marchand (1994, 1995) found that top management commitment to safety was positively related to workers' propensity to take safety initiatives. Cohen (1977) and Smith et al. (1978) reported that, in the United States manufacturing industry, the low accident companies differed from their matched high rate partners in several ways, including greater management commitment to and involvement in occupational injury prevention. And the safety motivation of construction workers has been observed to be strongly determined by leadership and safety standards of the leader (Andriessen, 1978).

While managers must take responsibility for driving the day-to-day motivation workers need to sustain safe behaviour, safety culture must be leadership driven. Both leadership and management must strongly believe that:-

- every accident is preventable
- only a zero accident rate is acceptable
- a zero accident rate is achievable, and every accident or incident provides an opportunity for preventing others.

To strongly sustain a workplace safety culture, the following elements must be at the core of safety leadership:

VISION, COMMITMENT AND PASSION

Vision requires more than a statement about a future situation. It requires commitment and passion. To be a good visionary, a leader must be inquisitive; constantly asking why a given safety problem occurs or persists or why one approach to a problem might be more efficient and effective than other options. The leader must thoroughly and tenaciously re-examine a company's past and current safety history to identify its strengths,

weaknesses, opportunities and threats and then strategically position him/herself for bringing about a new work culture capable of changing the mindset of workers about safety. The same vigour and rigour management commonly displayed in identifying new business opportunities is required for improving safety performance. The leader must be tenacious, and persevering if they are to keep the vision on safety alive.

A clear vision is the first step in instituting a functional safety management system. With the vision in focus, a company can then specify where it wants to be in terms of reducing fatal and nonfatal PPD, lost time injuries and disease and incidents, and then go on to determine the resources and strategies it needs to translate its vision into reality. The framework is then established for asking: Are the resources sufficient? Is there a need for outside expertise? Answers to these questions fundamentally determine the success or failure of a safety vision.

BENCHMARKING AND CONTINUOUS IMPROVEMENT

Leaders cannot afford to see injury prevention as a one-off activity. It requires a willingness to attain ever higher performance levels, to match world best occupational health and safety practice. Benchmarking a company's safety performance with those of its competitors locally and internationally within the same and other industries is a vital part of this process. The leader's intent is to establish similarities and differences in performance levels and to identify areas where further strategic action is warranted for gaining a significant competitive edge or staying ahead of competitors.

ACCOUNTABILITY

Leaders must be committed to seeing site managers and individual workers take responsibility for safety action. Many companies are beginning to value accountability in safety in this way. Take for example, Phelps Dodge Corporation (PDC) of the United States. PDC senior management uses four criteria to identify substandard performers each year. Substandard performance is defined as: having a higher injury rate than the company average rate; recording a lower improvement level than the average company level; contributing more than 5% of the total injuries for the company; and having an injury rate above 66% of the industry average. Substandard managers are required to present their plans for improvement to senior

management, and the plans are regularly monitored to ensure that they produce results. In establishing this accountability system, the goal of PDC is for 100% of its operations to perform at world class levels (Dotson, 1996).

PRE-JOB HAZARD ANALYSIS

Leaders should leave no stone unturned in identifying hazards. Hazards inherent in machines and the work environment must be identified and rectified prior to commencing a project. Notable hazards include failure to de-energise overhead or underground power lines, leaving machines unguarded, failure to lock out/tag out an electrical power source, site topography, and mechanical malfunctioning of motor vehicles. Time spent on pre-job hazard analysis is productive time; it helps isolate major damaging energies at work.

AUDITING OF SYSTEMS

Commitment to best practice safety systems and the auditing of those systems is another crucial element of safety leadership. Management needs to ensure that their company's current safety systems are adequate for addressing the hazardous exposures in the working environment. They must know that safety engineering systems (for controlling various damaging energies present in the production system) are adequate - and they must use an audit process to assist them to focus on factors that require effective control.

MAINTAINING A SHARED COMMITMENT TO SAFETY THROUGHOUT THE WORKFORCE

Monitoring movements in workers' safety motivation is crucial for sustaining the momentum of a strong safety culture. Workers opinions about safety may change from time to time for a variety of reasons. It may be the arrival of new managers or contractors on site, alteration in work procedures, changes in production technology, or new safety standards. Periodic surveys of workers' opinions provide a way to gain an in-depth understanding of the day-to-day concerns and fears of workers about safety.

TASK-SPECIFIC TRAINING

To achieve a company's vision on safety, leaders need to be committed to providing a training program that enables workers to recognise risks,

avoid risks, and work safely. The training must draw on data in the company's injury surveillance system and be embedded in its safety philosophy.

OPPORTUNITIES AND THREATS TO ACHIEVING SUCCESSFUL OUTCOMES

Now that we've outlined the key principle properties of the LAD model, we wish to draw your attention to some of the key opportunities and threats as we currently see them.

Discipline

Threats to consistency:

In seasonal industries (such as construction) work volume, expenditure level, and consequently labour turn-over rates vary. This can make it difficult to create a safety discipline base that is consistently shared by all workers. There are several pertinent factors here:-

- hiring of workers rises in the summer months and falls in the winter months
- many construction workers in peak periods are new hires, who are largely less familiar than experienced workers with safety procedures on construction sites
- new hires are less familiar with their co-workers and foremen/supervisors
- the unfamiliarity with the work and the social environment creates stress and anxiety, which if not understood and managed properly by site supervisors, can be a safety problem, and
- where workers are too accustomed to work and become highly experienced (e.g., assembly line production, or underground mining), there is a tendency for them to underestimate risks, which can also become a safety problem.

Building a strong discipline base for a given organisation requires knowledge of its leading labor market characteristics and development of a vision and strategy that will build consistency into the safety culture.

Discounting worker involvement in the presence of external safety expertise:

There is always the possibility of discounting worker involvement where external expertise is utilised. Leaders do this to their detriment, for studies (Chew, 1988; Forsgren, 1980) have shown that worker participation is a key element in injury control. The more workers are involved in issues

such as the development of a new safety policy plan, safety standard, or introduction of a safety technology, the stronger their safety motivation. Active participation by workers in virtually all levels of safety planning can strengthen the discipline base and yield a positive outcome for the total safety management system.

External political climate at odds with the local work environment:

Perceived dissonance between the external political climate and the local work environment also threatens the development of a solid discipline base. How workers read and interpret the external political climate influences their receptivity to safety discipline. A political environment that demonstrably takes health and safety as a priority matter adds strength to the discipline base. Along with this, workers need constant reassurance and practical examples of management commitment to safety.

Analysis:

Investment in safety is an on-going activity, which may be avoided where businesses are unsure of their long term viability or stability. In a high turnover environment, there is a tendency for businesses to adopt a piece-meal approach to safety or cut corners on important safety matters. Product market characteristics, such as the turnover rates of businesses in a sector, impact on the development of facilities for conducting credible safety data analysis. However, the health and safety of workers must not be compromised on any grounds. Contractors with good safety records are more likely to win contracts than those with a track record of poor safety performance.

'Blame the victim':

Along with incident data (injury and disease information), workforce demographics, (notably age, sex, ethnicity, language/education, occupation, and length of service with the current employer) provide penetrating insights into the nature of the dynamic interaction between people, machine and the environment. Some injuries and disease have been shown to have a unique age and gender profile. So, widening the database to include demographic data makes for easy identification and characterisation of high-risk worker populations. It should be emphasised, however, that integrating demographic parameters into an injury analysis system does not mean an acceptance of "blame the victim" theory of injury causation.

The effect of unionisation on workplace culture:

Unionisation is another vital element in the analysis dimension. Unions are often vital sources of data on workplace hazards. The Laborers International Union of North America for example, maintains a large database of occupational cancer mortality for its members. Unions are also important avenues for disseminating safety information to workers. However, there is a lack of consensus in the literature on the effect of unionisation on workplace safety. Unionisation has been found to have both a positive and a negative impact on injury rates. The lack of conclusive studies underscores the need for detailed, case-controlled analyses. An enlarged database can offer opportunities for comparative studies of unionised and non-unionised sites. Results of such studies can enhance safety management practice.

LEADERSHIP

The Need for a Shared Understanding of Safety

To achieve a successful safety management system, it is crucial to develop a shared understanding of safety amongst all employees - to have a safety culture that is part of the entire production process. Workers and foremen must understand why a particular safety action is the best for them.

Clear Communication Flow

Dynamic, two-way communication between management and workers can make or break the institutionalisation of a safety culture. Periodic feedback and reviews are crucial elements in this regard.

Levels of Trust

The level of trust that exists between workers and management, can determine the success or otherwise of a safety management program. Workers must feel that management means what it says about safety, and management must be able to trust workers for taking responsibility for certain aspects and levels of safety action.

SUMMARY AND CONCLUSION

A safe workplace is a productive and profitable workplace and safety management is an integral part of profit maximisation. This has been the conclusion of studies of safety in coal mining (Ore, 1992b) and construction (Hinze, 1987; Hinze and Raboud, 1988). A further series of studies conducted in 9 industrial settings (including coal mining and manufacturing) on occupational health and safety best practice by Worksafe Australia concluded that effective safety management can

benefit companies by reducing costs, improving industrial relations, and increasing flexibility and innovation.

Production time is often lost when an injury occurs to a worker. This does not assist a company's competitiveness. With increasing industrial globalization, developing a competitive edge has become a leading issue for corporations. So, better management of safety provides ample opportunities for businesses to improve their international competitiveness.

In addition to the argument for increased competitiveness, the growing economic and social cost of occupational injury and disease provides a compelling case for changing the dominant orientation on workplace health and safety - from total reliance on statistical measures, audits, regulations and engineering solutions to putting greater emphasis on leadership and cultural change. Companies should search out visionary and innovative ways for controlling hazards and such innovations can be patented.

Accidents are usually a signal that something is wrong in the management system. Safety leadership must be entrenched in the boardroom, from where concrete action flows down to management and to the discipline base at the point of production. Minimisation of injury costs should be at the core of safety management (in addition to protecting workers from all kinds of hazardous exposures).

Safety management practice varies across industry and corporations; in some companies in Australia it matches world best practice while it is substandard in others. The agenda for the future is to collectively work for making all workplaces safer for workers.

No safety management system can be successful without a leadership with a strong and clear vision. Public leadership and greater community awareness have contributed significantly to lowering road fatalities in Australia. A leadership-driven cultural change similar to that in road safety can have a remarkable improvement in workplace health and safety. Over the next ten years, 100% of Australia's top 500 companies should have a safety performance record at world class levels.

A strong safety leadership, a deeply entrenched culture of care by management, a solid discipline base, and a formidable data analysis system are the structures that can truly transform workplace safety performance. An essential element in safety management is having the right attitude, mindset, interest, and commitment. With the right frame of mind, management can draw on the wealth of statistics in the database to develop an informed understanding of where risks are occurring in their

workplaces, contributory factors to those risks, and for repositioning itself to meet future safety challenges. Safety management must be founded on valid, reliable empirical data. Constant verification and updating of databases enhances the authenticity and credibility of the policy analyses generated from the system.

REFERENCES

Andriessen, J.H. (1978). Safety behaviour and safety motivation. *Journal of Occupational Accidents*, 1, 363-373.

Brooks, A. (1988). Rethinking occupational health and safety legislation. *Journal of Industrial Relations*, Sep., 347-362.

Brooks, A. (1991). Occupational health and safety laws. 3rd Edition, CCH, Sydney.

Chew, D.C.E. (1988). Effective occupational safety activities: findings in three Asian developing countries. *International Labour Review*, 127, 111-124.

Cohen, A. (1977). Factors in successful occupational safety programs. *Journal of Safety Research*, 9, 168-185.

Dotson, K. (1996). An international safety and health measurement strategy: corporate programs, systems and results. *Journal of Occupational Health and Safety-Australia and New Zealand*, 12, 669-678.

Forsgren, R.A. (1980). A model of supportive work conditions through safety management. In: Petersen, D. and Goodale, J. (eds.). *Readings in Industrial Accident Prevention*. New York: McGraw-Hill, 218-226.

Hinze, J. and Raboud, P. (1988). Safety on large building construction projects. *Journal of the Construction Division, American Society of Civil Engineers*, 114, 286-293.

Hinze, J. (1987). Qualities of safe superintendents. *Journal of Construction Engineering and Management*, 113, 169-171.

Industry Commission. (1993). Workers compensation in Australia, Draft Report, Volume 1, 22-30.

Lord Robens. (1972). Report of the committee on safety and health at work. London: HMSO, July.

Luttig, C.R. (1996). Safety leadership: an integrated, strategic approach. *Minerals Industry International*, Sep., 10-16. Paper presented at a conference on health and safety in mining and metallurgy, Regent's College, London, 14-16 May

Ore, T. (1992a). Trends and costs of injuries and disease in the New South Wales construction industry. *Safety Science*, 15, 1-20.

Ore, T. (1992b). Micro-economic reform and occupational health and safety: a study of the Australian coal mining industry. *Journal of Occupational Health and Safety- Australia and New Zealand*, 8, 155-166.

Quinlan, M. and Bohle, P. (1991). Occupational health and safety: transforming industrial relations in New South Wales. Discussion Paper 2, Government Printer, Sydney.

Simard, M. and Marchand, A. (1994). The behaviour of first-line supervisors in accident prevention and effectiveness in occupational safety. *Safety Science*, 17, 169-185.

Simard, M. and Marchand, A. (1995). A multilevel analysis of organisational factors related to the taking of safety initiatives by work groups. *Safety Science*, 21, 113-129.

Smith, M.J., Cohen, H.H., Cohen, A., and Cleveland, R.J. (1978). Characteristics of successful safety programs. *Journal of Safety Research*, 10, 5-15.

Whiting, J. (1996). Future safe '96: after the dust has settled! *Journal of Occupational Health and Safety- Australia and New Zealand*, 12, 523-524.

Worksafe Australia. (1993). Occupational health and safety performance Australia- best estimates, AGPS, Canberra.

Worksafe Australia (1995). Estimates of national occupational health and safety statistics Australia, 1993-94, AGPS, Canberra.