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Leading safety from the top:
The CEOs and GMs of three companies on how they contribute to the practice of good workplace health and safety

How will WHS look in the future?
Predicting the future is a difficult task, and attempting to predict it for health and safety is even more challenging

Ann Sherry: guiding the safety ship:
The chair of Safe Work Australia on her greatest professional achievements, challenges and goals

Prevention through safe design:
An effective means of preventing and controlling incidents is to “design out” hazards and unsafe exposure from the workplace

How to keep OHS skills sharp:
How safety practitioners can get the most return on their investment in any formal education or training program
CEOs, leadership and safety

CEOs play a central role in creating a culture of good OHS. The general theme for this issue is leadership, with a number of features that explore how good OHS outcomes can be achieved with the right support from the top.

There has been an increased focus on the role of leadership in safety in recent years, with the introduction of harmonised laws, increased interest in OHS on the part of investors and shareholders, and boards focusing more on safety leadership at the executive level. In this issue, the cover story (page 12) features the CEOs and GMs of Holcim, Hunter–New England Westpac Rescue Helicopter Service and Boart Longyear, who talk about how they approach safety and explain how they contribute to the practice of good workplace health and safety.

Similarly, one of the news reports for this issue (page 8) looks at how investors increasingly expect companies to report safety data and demonstrate active programs to manage safety. Two recent reports delved into OHS from an investor and shareholder perspective, and one report from Citi Research suggested that if companies do not publicly report on workplace safety, this raises doubts about whether safety is being actively managed.

Also in this issue, we interview Ann Sherry (page 22), chair of Safe Work Australia (SWA), about her greatest professional achievements, challenges and goals, and the evolution of the OHS profession in Australia. The Model Work Health and Safety Regulations have had a significant impact on OHS in many jurisdictions in Australia, and in this feature, Sherry has observed that people are more aware of their obligations and in most businesses, safety is part of the way you think about doing business.

Safety in design, as it is known in Australia, is early intervention in the design process, to remove or minimise hazards or risks that may arise throughout the lifecycle of a structure – from the initial design concept and construction, through to handover and use/occupation of the completed project. On page 18 of this edition, John Daly explains that an effective means of preventing and controlling workplace injuries, illnesses and fatalities is to “design out” hazards and unsafe exposure from the workplace.

Predicting the future is a difficult task, and attempting to predict it for health and safety is even more challenging, writes Gus Saunders in this issue’s opinion piece on page 10. There are a number of elements which may contribute to the moulding of the future of work health and safety. These elements have the potential to be shaped now for better health and safety outcomes for the future, and Saunders examines how these elements will impact the future of work health and safety.

“Predicting the future is a difficult task, and attempting to predict it for health and safety is even more challenging”

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Minimising psychosocial wellbeing risks

There are clear deficiencies in monitoring the psychosocial wellbeing of individuals in positions with safety-critical impact, even in very well-regulated industries, according to an expert in the field.

More generally, the prevalence of periodic psychological and cognitive impairment in the Australian working population impacts on unplanned absence, presenteeism and work-related injuries, said Dr Rob McCartney, occupational physician with occupational health consultancy Resile.

This risk is heightened in safety-critical industries, said McCartney, who explained that “passing” a pre-employment or periodic assessment does not necessarily mean that a person is psychologically fit for safety-critical tasks.

The objective review of a person’s fitness to work on a particular day is usually limited to random drug and alcohol testing or an observant co-worker/supervisor.

“While necessary, these strategies alone are insufficient risk management,” according to McCartney, who said there should be increased interest in psychological fitness in safety critical industries from a board and investor perspective.

“Given the increasing community (and legislative) expectations when it comes to occupational and public safety, current corporate processes may not be sufficient,” he said.

How to encourage a culture of safety reporting

A good reporting culture is one of the corner-stones of a strong safety culture, however, managers won’t get a good reporting culture unless they work to change the factors that discourage reporting.

“It is human nature that people don’t want to report things, especially minor injuries and near misses,” said Paul Hood, executive manager – delivery for LJM Group, a consultancy which specialises in performance improvement through safety culture change and leadership. “Some people see incidents as just a normal part of daily work.”

Hood also said others find incidents embarrassing, and don’t want to draw attention to their mistakes.

“People are sometimes ‘named and shamed’ in safety alerts or meetings, and many see this as a form of blame. If the corrective actions from investigations focus only on the people who are hurt, this also implies that the problem is always at the front line.”

A third factor is when incident reports go into a “black hole”. “If there is no positive feedback for reporting, nothing changes as a result, or the response takes too long, people won’t bother reporting the next time they have a chance,” said Hood.

Some organisations have consistently low rates of near-misses and injuries, but he noted that these statistics may not reflect reality. Incidents and near-misses are probably happening; they’re just not being reported or measured,” said Hood.

Safety mindfulness lacking in healthcare and social assistance

While there are generally high levels of mindfulness of work health and safety across most companies, employers operating in the healthcare and social assistance sectors have the lowest levels of mindfulness in terms of what they count on in their business, preoccupation with failure and sensitivity to operations, according to Safe Work Australia (SWA).

Of particular note, less than half of these employers indicated that their business spends time identifying how its activities could potentially harm their workers (45 per cent) compared to around 80 per cent among the other priority industries.

The SWA research report, Mindfulness of work health and safety in the workplace, also found that sole traders working as labourers displayed high levels of mindfulness across the three measures of what businesses count on, sensitivity to operations and preoccupation with failure.

SWA said that how aware workers are of factors in their workplace that may impact work health and safety has been identified as an area of interest in the Australian Work Health and Safety Strategy 2012-22 under the action area of leadership and culture.

Less than half of employers and one-third of sole traders indicated that they worried about misidentifying or misunderstanding potential causes of harm.

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Leading safety: the theory and practice

Safety leadership is a relatively new concept and one that continues to attract further interest both in theory and practice, writes Patrick Murphy.

Over the years there has been extensive research into the notions of "safety leadership". Many have sought to define the characteristics and attributes of a safety leader, with many thousands of people across the country having attended some form of safety leadership training at some point in their career. There is no question that ensuring the safety of employees remains an indefinable challenge for many organisations. The need to operate efficiently, profitably and safely has the potential to create competing priorities for business leaders, and as a result, there is an absolute need for a relentless focus and discipline to enable a situation where there is no trade-off. Leadership – or to be specific, safety leadership – is central to enabling and achieving this. Leadership is the general theme of this issue of OHS Professional.

Leadership is a concept that we have long studied and continue to study; we continue to understand leadership – what makes a good leader and what makes a not-so-good leader. Throughout our daily working and social lives we witness great inspirational leaders and those who provide a poor demonstration of leadership. Safety leadership, however, is a relatively new concept by comparison and one that continues to attract further interest both in theory and practice. It is very well known and understood that leadership influences culture which drives behaviours and this yields business outcomes or results, yet its application in an OHS context is not so evident. Such a statement could also be written as follows – safety leadership influences safety culture, which drives safe behaviours and returns a safety result. Are the characteristics of safety leadership so inherently different to those of leadership generally? Because at its heart are shared concepts such as influence, motivation, accountability, caring, involvement and engagement, expectation and direction.

Edgar Schein, expert and author on the topics of organisational culture and organisational development, asserts that "Leaders create and change culture while managers and administrators live within them". It is true, however, that safety leadership can exist and is witnessed at all levels of an organisation, and it should not necessarily be viewed as hierarchical, although it most certainly starts and needs to be evident at the top. Kirstin Ferguson, in her book, A study of Safety Leadership and Safety Governance for Board Members and Senior Executives, considers safety leadership at a board and executive level and proposes safety leadership criterion based upon the safety-specific transformational leadership model. She also argues that there are four safety leadership criteria relevant to senior executives, namely, vision, personal commitment, decision making and transparency. In recent times, Professor Andrew Hopkins talks and writes about the notion of mindful leadership, where leaders need to feel a sense of chronic unease about the possibility of something going wrong.

This is interesting in the context of considering the control environment to mitigate and manage risk. It is here where the discourse of safety and applying it in a leadership context could shed some light. For example, how many of us truly consider safety leadership as a control? In fact, for that matter, how many consider safety leadership as a critical control? The fact that safety leadership is not an engineering-style control means that one would rarely identify it within a bow tie diagram. Hopkins and others have considered the role of leadership and culture in some of the world's most significant disasters (many connected to process safety), and it is often the case that such a factor has contributed to the unwanted event. It is interesting to contemplate the possibility of examining safety leadership through the lens of "acts", and in the context of a bow tie analysis understand what acts serve as controls when we consider the various dimensions to leadership. Consider safety leadership as a layer of defence to prevent leadership failure as the unwanted event. The controls or acts to mitigate poor workplace culture, major production impacts or safety-related incidents can become rather easy to identify when we break down safety leadership in greater detail or translate the attributes into actual behaviours or acts. Safety leadership continues to evolve, but perhaps some of our core processes and applied tools may just be able to assist in understanding more about safety leadership.

Patrick Murphy, chairman, board of directors, SIA

“Consider safety leadership as a layer of defence to preventing leadership failure as the unwanted event”
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Where companies miss the safety reporting mark

There is increased interest on the part of investors in safety reporting, but recent research has found significant room for improvement on the part of listed companies, writes Craig Donaldson

Investors increasingly expect companies to report safety data and demonstrate active programs to manage safety, according to a recent research report, which found that all but 19 of the ASX100 companies now report some safety data. If companies do not publicly report on workplace safety, this raises doubts about whether safety is being actively managed, according to the Citi Research report, Safety Spotlight: ASX100 Companies & More: Injury & Fatalities Data FY05 to March FY15 Presented & Interpreted.

The report suggested that a company’s safety performance and approach can provide a window into “management quality” and said that a “safe” business may also be a well-run, efficient business. “There can be costs, production disruptions or shutdowns associated with safety incidents,” it said.

“Safety performance influences companies’ workers’ compensation costs. A contracting company’s safety record may affect its ability to win contracts, particularly with some companies in the resources and heavy industry sectors.” Safety can also impact a company’s reputation, its “licence to operate”, and its relationship with employees and governments, according to the report, which noted that, at times, regulators may step in to address safety concerns, imposing operational constraints.

“Some investors may consider avoiding companies that, in their view, do not address safety appropriately,” said the report, which analysed the safety performance of the ASX100 companies plus 26 others, and includes injury rate and fatalities data since FY05. For injury data for 2013 and 2014 (or a year later for March year-end companies), it found that of the 126 companies analysed, 84 report LTIFR for the survey year, 51 report TRIFR, 94 report LTIFR and/or TRIFR (i.e. report one or both of these commonly used injury metrics), and 10 report some other type of injury data.

Many companies in resources, materials and “heavy industry” have some of the lowest injury rates, according to the report, which noted that safety systems and culture are often well established in these industries given the potentially high risks. Conversely, higher injury rates tend to be seen in industries with diverse sites, and activities like logistics, manual handling and hospitality – including consumer staples and retail.

“In general, injury rates have tended to come down over time, though for many companies substantial improvements have already been made and improvements are now more incremental. Indeed, where injury rates are now low, it may be unrealistic to expect to see a continuing smooth downtrend,” the report said.

**Safety and mental health outcomes: MIA**

While the vast majority of Australia’s largest miners, banks and energy companies publicly disclose workplace safety and mental health commitments to investors, barely one-third share any qualitative or quantitative information on the effectiveness of such programs, according to another research report from the Australian Council of Superannuation Investors (ACSI).

The ACSI research comes in the wake of growing concern about the high level of mental health issues among fly-in fly-out (FIFO) workers, and the report also found that while 79 per cent of metals and mining companies in the S&P/ASX200 have FIFO workforces, only one-third of those disclose details of initiatives that contribute to improved lifestyle to safeguard the mental health of those workers.

The research found that 92 per cent of ASX200 financial companies and 75 per cent of mining and utilities companies disclose commitments to workplace mental health and safety through formal initiatives to enable flexible workplaces, and 75 per cent of ASX200 financial companies and 54 per cent of mining and utilities through various wellbeing programs and initiatives. However, ASX200 financial, mining and utilities companies have low to zero disclosure of absenteeism, overtime or extra hours worked by their employees, according to the Workplace Mental Health and Safety: Corporate Risks and Opportunities for Financials, Mining and Utilities Companies in the S&P/ASX200 report.

Companies need to both identify and explain the risks relevant to them and their industry and how they are managing them, so investors can effectively price and evaluate ESG issues as part of their analysis of existing and potential investments, said Louise Davidson, chief executive of ACSI. “A lack of reliable and comparable disclosure of corporate performance, beyond that contained in traditional financial reporting, can undermine effective communication of these longer-term measures of business success by company boards to their owners,” said Davidson.

The research report, which was commissioned by ACSI and conducted by research group CAER, noted that investors need meaningful, accurate, timely and comparable data to help them limit their exposure to material workplace health and safety risks when making decisions about which stocks to include in their portfolios. The proactive, preventative initiatives that companies undertake, if implemented successfully, should positively impact the wellbeing of their workforces, according to the report.
Improving quad bike safety

The University of NSW Transport and Road Safety Research unit recently released the results of a world-first testing and research project into quad bike safety.

WorkCover NSW funded the $1.3 million Quad Bike Performance Project, which was designed to quantify the stability and crashworthiness of quad bikes and assess their risks and performance. As part of a national Heads of Workplace Safety Authorities (HWSA) initiative to reduce current unacceptable levels of quad bike-related fatalities and injuries on farms, the project was conducted over 18 months by researchers from the University of NSW Transport and Road Safety (TARS) Research unit and involved more than 1000 tests carried out on 16 vehicles. These tests were carried out on agricultural and recreational quad bikes and Side by Side Vehicles (SSVs) for static stability, dynamic handling and rollover crash worthiness – with and without load and with and without operator protective devices.

Significant findings

The project made 19 conclusions, and the research team’s Professor Raphael Grzebieta and Adjunct Associate Professor George Rechnitzer said the following three deal with the main issue of rollover stability and crashworthiness.

First, around 75 per cent of the 109 fatalities studied occurred on farms, and 71 per cent of the 109 deaths involved rollover. Almost 50 per cent of the farm work fatalities involved mechanical asphyxia due to the quad bike rolling on top of and pinning down the rider. “Thus, rollover prevention and protection were identified by the research team as the priority focus for any injury countermeasures,” said Grzebieta and Rechnitzer.

Second, the extensive test program clearly quantified the low levels of stability of quad bikes and their lack of rollover rider protection. The stability of the workplace quad bikes when loaded with an operator and cargo were low and were found to have a lateral stability equivalent to a heavy truck. In contrast, SSVs were found to be significantly more stable than quad bikes by up to 50 per cent.

Third, selection of vehicles by farmers and for the workplace requires a much broader perspective based on “fitness for purpose” safety assessments. This leads to quad bikes not being the vehicle of choice; rather, it motivates the selection of more stable vehicle types, such as SSVs.

Outcomes and recommendations

The project produced 24 recommendations, and Grzebieta and Rechnitzer said consumers (such as farmers and workplace managers) should be provided with information concerning the safety of vehicles that they want to purchase, as detailed in the Australian Terrain Vehicle Assessment Program (ATVAP) as a consumer guide for quad bike and SSV buyers. ATVAP ratings should also be listed at point of sale, a rating sticker placed on the vehicle, and ratings presented online as with the ANCAP Ratings.

Another recommendation was that, wherever possible and practical, the replacement of existing quad bikes with four-star rated vehicles (i.e. typically SSVs) should be considered. Where it has been assessed that existing quad bikes are still acceptable or cannot be replaced, then protection devices such as Quadbar or Lifeguard should be retrofitted to existing on-farm quad bikes, noting they are likely to offer a net safety benefit in slow-speed crashes typical of most farm use. “However, in some rollover situations, OPDs may not prevent serious injury and in some cases may result in injury. It is essential that when SSVs are used that seat belts are at least three-point belts and are worn,” they said.

In terms of administrative measures, the following are recommended. Grzebieta and Rechnitzer said all quad bike riders and SSV drivers in the workplace or otherwise should receive vehicle-specific basic training and instruction by specialist accredited instructors. “Mandate wearing a suitable standard-compliant helmet that is comfortable for workplace use, yet offers protection against head impact and thermal loading. Industry should encourage the increase of helmet use. No child under the age of 16 should be allowed to operate an adult quad bike.”

Quad bike safety and OHS

When asked whether the quad bike industry does enough to make quad bikes safe, Grzebieta and Rechnitzer said “the answer is a definite ‘no’. However, the better designed SSVs marketed by industry – which have ROPS, minimum three-point seat belts, doors and curtains for containment – do provide for a safer vehicle. The quad bike industry should increase vehicle stability and improve handling to reduce the risk of loss of control and rollover,” they said. “The study identified that active riding and rider separation are not considered reliable rollover risk reduction strategies for quad bikes in the work/farm setting, and the industry should offer free training and helmets with every quad bike sold. Advertising demonstrating that quad bikes can be used in ‘all terrains’ is misleading and should not be promoted.”

The research report is available from www.tars.unsw.edu.au.
Research and information suggest that industry and occupations of the future are unpredictable in type and quantity. Kids of today may have occupations that have not yet been invented, and hopefully they will be performing jobs in a much safer way.

So what will the future of work health and safety look like? There are a number of elements which may contribute to the moulding of the future of work health and safety. These elements have the potential to be shaped now for better health and safety outcomes for the future. This is discussed in more detail below.

Simplicity of future systems
In WHS, simplicity is a quality that is frequently sought by both workers and management, but it is not always achieved. In developing WHS management systems, we tend to use international and/or local standards for safety structures. However, a better solution is sometimes one that addresses a need with surprising simplicity and efficiency.

The question that should be asked is: what do we need for a practical and simple solution to help workers and management take ownership of health and safety? There are a number of answers when developing systems which are effortless. These systems should cover the following keys points – commitment, communication, analysis, work practices, information, induction, competency, reporting and safety performance.

However, in a rapidly changing workplace environment with increasing complexities and risks, we will need to consider systems that can deliver effective health and safety strategies and change. Businesses will need better systems that can change with new workplace environments and risks. Apart from being simple, they will need to be organic systems that can grow with the business identity and the relevant processes and change when required as new practices evolve. This organic growth will be part of a changing environment, how the workforce develops and controlling the new challenges.

Workplaces need to think about what they require now, and plan ahead.

Future safety knowledge
The need for continuing innovation in health and safety is paramount; so too is the need for better safety knowledge. To move forward it is necessary to close the data gap, because knowledge is the key to prevention. It is hoped that in the near future, the new generation of workers entering into our workplaces will be trained with better knowledge of computers, systems and skills.

Future safety knowledge will mean better safety objectives, targets and goals. This can be achieved by:

• improving sharing of and access to knowledge and information through advanced systems and technology
• enhancing future safety knowledge and information through networking activities that link industries together
• building institutional capacity to acquire and use future safety knowledge and information for risk elimination.

Safety ownership
It is often said that ownership is the first step to leadership, but what if, in the future, we look to our leaders giving ownership to workers to help them take control of health and safety in their environment? Some companies do this now, but it is not common practice. As safety professionals,
we need to change and give the ownership to individuals, to teams and business units. Why is this important? There is much regulation around making the “employer” responsible for the workers’ safety, but workers need to be given the opportunity to control and take ownership of their own safety. This will mean they need to have a better understanding of their job, activities, tasks and what risks are associated with that job. This will allow them to have better control of their preventive measures on ensuring the job is safe. Ownership is going to be very important if we want to shape the future of health and safety in the workplace.

**Safety culture development**

Traditional “safety culture” is the set of values and attitudes regarding health and safety and how we do something, which is shared by every worker and management of every level of an organisation. The workplace needs to look at what the values of the “safety culture” of the future will be – will they change to “I care” and/or “I am responsible”? Will workers come to the workforce with this already built in by pre-employment selection, commitment, competency, measurable parameters, or other elements which will shape a different future safety culture and behaviour?

Future safety culture and behaviour will need to be something very special. This can be hard to obtain in the current workforce; this process needs to be made undemanding.

Every worker of the organisation will need to be aware of the risks and potential unknown risks induced by activities – the behaviours – so as to preserve and enhance safety, and they will need to be able to adapt when facing safety issues and developing technology.

**New technology**

How has present technology and how will new technology change our health and safety practices and save us? This is one of the most important areas that will have the greatest impact on health and safety. There are a lot of computer programs for management systems, risk management, investigation, incident reporting and recording that have allowed better and/or accountable control of health and safety in the workplace.

We can look at present health and safety technology, which in many manufacturing and production environments involves the use of full robotics systems taking control of many processes and activities. At the upstream end of agriculture, we will see many new innovations which are now starting to appear, like the John Deere driverless tractors that operate on pre-set programs.

New technology will definitely make the work environment safer, but there are still areas which will have risks, these being maintenance and repairs phases of the process. However, new technology may be self-diagnosing and self-repairing.

There are exciting times ahead, and the safety world must be ready to embrace the future of work health and safety, whatever direction it takes. We should be considering the elements discussed above with a view of moulding them now for the future of work health and safety.

Gus Saunders is manager environmental health and safety, Australia and Asia, for Olam International and member of OHS Professional magazine’s editorial board.
Holcim is one of the world’s leading suppliers of cement and aggregates such as crushed stone, gravel and sand as well as other mixtures such as ready-mix concrete and asphalt. With around 67,500 employees globally and operations at roughly 1500 sites across 70 countries and every continent, Holcim also operates across Australia supplying concrete from a network of more than 200 concrete plants, 900 mixer trucks, 88 quarry operations and mobile and on-site facilities.

The Asia-Pacific region enjoyed the highest sales volume (roughly one-third of group sales) in the Holcim Group over the past financial year, with population growth, a significant need for infrastructure, and increased urbanisation being the main growth drivers. When Mark Campbell took on the role of Holcim Australia’s CEO in 2011, he says one of the key goals was improved OHS as the company’s lagging safety indicators had plateaued. “I was cautious of that,” he says. “We started to put together a new management team who formulated a whole-of-business strategy in early 2011, and one of the five key pillars of this was to make a step change in safety.”

Leadership of safety has been one of the key drivers of this pillar, according to Campbell, who explains that safety needs to be owned at different levels of the organisation – starting at the top. “There needed to be really clear expectations of what leadership and safety look like: for me, for my executive team, general managers, operations people, salespeople and operators,” he says. “I think we’ve systematically gone about improving leadership and this has a knock-on effect, because leadership in safety is very closely aligned with leadership in operational efficiency or dealing with customers or dealing with employees.”

Focusing on the positive and highlighting achievements has also played a key role in helping reinforce improved safety, Campbell says. About five years ago, there was a focus on lagging indicators: “it was all about chipping people and talking to people about the negatives, so we’ve moved to a much more action-orientated, achievement-focused culture, where really we’re looking at all sorts of indicators. For example, we’re looking at near-hit frequency rates, the amount of hazards that have been raised, close-out rates of hazards, close-out rates of actions leading from incidents or from near hits, people’s activities in terms of safety, how many safety tours they’ve done, implementation of initiative rates and time out on site,” he says.
While Holcim still looks at lagging indicators, Campbell says these are not “the be-all and end-all – and haven’t been for some time. However, the outcome is important, we want zero harm and we use the lagging indicators as one of a range of things to help us understand how we’re going and what we need to be focusing on. From a leadership perspective, we spend maybe 90 per cent of our time focused on lead indicators,” he says.

Even though Holcim has been through a lot of change – a boom and bust cycle as well as numerous changes of ownership – there are a couple of defining contributors to good OHS in the business, according to Campbell. “One of the most pleasing things is that our employees have been able to maintain a strong focus on safety over the years,” he says. “We do employee engagement surveys, and while there are positives and negatives, one of the things that has been extremely consistent throughout that period is our employees’ views about our attitude to safety and our culture of safety. And I think that has only deepened with the improvements that we’ve seen.”

The executive team meets about once every month for up to two days at a time, and at least half a day with the whole team is spent purely on safety. Campbell also holds management meetings with his direct reports, and the first half hour of these 90-minute or two-hour meetings is again spent on safety. “I think you’ve got to put the time in at the executive team level and at the management team level. Then there are a lot of other things I get involved in through the organisation. Everything from site visits, to the safety tours through to involvement in incidents, for example. Within 24 to 36 hours of a near miss or an injury, for example, we convene a teleconference to discuss what happened, our initial thoughts as well as learnings out of what happened. This also gives me an opportunity to speak to the supervisor, so it’s good to hear what’s happening from the coalface and for them to hear my thoughts and questions,” he says.

“It’s really well understood in our organisation that a good attitude towards safety is important, and a lot of activity and focus on safety is a prerequisite for managers and leaders to progress in their careers. In fact, if you really don’t take safety seriously, these days you’d be asked to leave,” says Campbell, who says Holcim also rewards the right outcomes through an annual bonus scheme in which about 15 per cent of variable compensation is directly linked to safety performance, and this is split 50-50 between lagging indicators and activities.

Over the past five years there has been a reduction in lagging indicators, which are now at about one-third of their previous level in terms of lost time and injury frequency rates, while the total recordable frequency rate is about half its previous rate. Globally, the company is maintaining its target for an LTIFR of less than 1.0, while the group also moved to a TIFR with a target of below 5.0.

**“Leadership in safety is very closely aligned with leadership in operational efficiency or dealing with customers or dealing with employees”**
Hunter–New England Westpac Rescue Helicopter Service

The Hunter–New England Westpac Rescue Helicopter Service (WRHS) provides a 24-hour aeromedical search and rescue service to communities over an area of 132,000 square kilometres in NSW. It operates four aircraft from two bases, and a significant number of safety initiatives have been developed by WRHS to keep its pilots, crews and medical staff safe. Operating an emergency aeromedical service poses a number of operational risks managed through the service’s aviation safety management system (SMS), according to its general manager, Richard Jones, who says major OHS risks in WRHS include:

- manual handling (operations personnel loading patients and equipment into aircraft, engineers working in awkward, restricted positions, administration staff carrying/moving loads)
- potential exposure to hazardous substances (personnel working with fuels, oils, lubricants, paints, thinners)
- potential exposure to biological hazards (blood/body fluids)
- working at heights (pilot daily inspections, engineers working on upper surfaces of aircraft)
- exposure to aircraft noise
- contractor management (safety on base and the potential for them to introduce risk into the organisation).

“The service adopts the philosophy, and therefore the policy, that to be effective the OHSMS requires the participation and support of everyone in the organisation. Gaining this commitment has required the board and the management team to demonstrate a corporate commitment,” says Jones. “The value placed by the board and the organisation on safety is demonstrated by the positioning of safety at the core of our business. Safety is a standing agenda item at all management meetings, weekly operations meetings and reporting to the board; this ensures safety is integrated into all levels of the organisation, and any safety reporting is visible and available to everybody.”

One key initiative has been the goal of attaining a “just culture” reporting environment within the service, says Jones. “We recognise only a very small proportion of human actions that are unsafe are deliberate, and these deserve consequences of appropriate severity. However, an entire ‘no-blame’ safety culture is not feasible or desirable. What is needed is a ‘just culture’ – an atmosphere of trust in which people are encouraged to provide essential safety-related information and also where they are clear about where the line must be drawn between acceptable and unacceptable behaviour,” he says. “We have a need to learn from accidents and incidents through safety investigations to allow us to take appropriate actions to prevent any repeat occurrences. It is important that even apparently minor occurrences are investigated, in order to prevent a future major accident.”

Another initiative has been the introduction and operation of hazard identification and risk management processes, including a simple-to-use hazard reporting system, in order to eliminate or mitigate the safety risks resulting from our operations. This has been achieved by
the introduction of Air Maestro, a web-based aviation software application allowing personnel to update and manage operational information anywhere, anytime over the internet. This system has enabled the WRHS to enhance the safety, compliance and efficiency of personnel and the operational environment. “This has given managers control of core operational information that has allowed us to effectively manage the business and assist with achieving regulatory compliance and managing risk,” says Jones.

As GM, he says he is responsible together with the management team for setting the values of the organisation and creating a “just culture”. “My displayed behaviour is important to demonstrate my support for those values. Policies that are developed and authorised must be consistent with the culture and values we are trying to promote, and I ensure that people need to be held to account for inappropriate or non-compliant behaviour. Accountability starts at the top of the organisation, and I make it clear to our staff that I will back them up 100 per cent if they decline a task or mission due to safety concerns. I have a role to ensure that there are adequate resources, both human and financial, available to ensure all work activity is undertaken in a safe manner,” he says.

An important factor in the service’s good safety record has been staff understanding there is no pressure from above to take risks, according to Jones, who says staff understand the cost of an accident at the individual and organisational level. As such, a risk-based approach is now
standard practice across all departments, and safety and “minimising risk is now common language and the way we do business; it has become part of what we do, not an add-on or something else we have to do,” he says. “A ‘just culture’ is emerging, individuals are reporting near-miss events and sharing their experiences in ‘lessons learned’ sessions with their peers. This process has proved a valuable learning tool and critical for continual improvement.”

For OHS professionals looking to improve safety in their organisations, Jones suggests they should have a good understanding of their operations and the hazards and risks associated with those operations: “get out and talk to your people, watch what they do and listen to their concerns,” he says. “Ensure there are adequate resources dedicated to safety, have in place systems for receiving safety information regarding incidents and hazards and risks, and ensure there is a timely response to any information submitted. If you have to make a decision regarding safety, make this decision imagining your child/partner/parent is involved in the task at hand.

“Have a good team you can trust that can implement policy, provide timely and accurate information and provide you with the knowledge to make informed decisions regarding safety, and don’t get complacent in regards to safety when things are going well – there is always room for improvement.”

Boart Longyear
Boart Longyear is a leading provider of drilling services, drilling equipment and performance tooling for mining and drilling companies globally. Headquartered in Salt Lake City in the USA, and listed on the ASX, it also has a significant presence in aftermarket parts and service, energy, mine de-watering, oil sands exploration, and production drilling. Its global drilling services division operates in more than 30 countries for a diverse mining customer base, while its global products division designs, manufactures and sells drilling equipment, performance tooling, and its aftermarket parts and services to customers in over 100 countries.

Boart Longyear has also been hit by the global mining downturn, according to its CEO, Richard O’Brien, who says this has presented significant challenges for the business – including the downsizing of its workforce from about 12,000 employees to around 5,500. “Our customers are cutting costs, so we have to cut costs,” he says. “Maintaining vigilance over employee safety is important. In the mining business, fitness for duty is a big issue as the industry downsizes, and we sometimes end up with people who are taking on different jobs at different locations and consolidating the work that we have done on pure mine sites,” he says.

In changing roles and tasks among its workforce, which includes fly-in fly-out workers in Australia,
O’Brien says it is important to watch out for fatigue and other stresses. “We have employee health and wellbeing concerns; being away from family obviously impacts someone on their fitness for duties. This is more holistic than just safety, because fitness for duty is mental as well as physical capability, so keeping people focused and in the present – rather than worried about whether they’re going to have a job or how they feel about changing shifts – is critical.”

There are a number of key initiatives which help support and contribute to strong OHS outcomes in Boart Longyear, according to O’Brien, who says it is important that employees take their own safety and that of their workmates personally. An ongoing campaign across the company is called ‘make it personal, make it safe and make it home’. This is a comprehensive communication program available in a number of different languages which makes the point that each employee has a commitment to their own safety as well as others’, that they have a right to stop work to make sure things stay safe and that nothing is more important than getting home safely. “This campaign has re-energised our safety program and underpins a lot of the current things that we do in safety. It also helps keep the safety message simple but fresh. I think sometimes we are guilty as executive leaders of wanting to redesign the message because either we’re tired of it or we feel it’s not working – and it might be that just the very time when employees are really getting comfortable with the message,” he says.

Boart Longyear also cross-pollinates safety ideas and initiatives across its business, from its drilling products business, for example, into safety design in engineering, design and construction of drill rigs. “I think it is a really virtuous cycle for us,” says O’Brien. “If we injure someone and we can figure out a way to engineer a safety design so that we don’t do that again, we use that unfortunate injury to help educate us so that we don’t have further injuries.”

The culture of Boart Longyear also plays a “very critical” role in safety, according to O’Brien, who acknowledges that ultimately he is responsible for helping to shape organisational culture through leading by example. “I make sure that the people who report to me and to them are accountable for those same things,” he says. “We can really drive changes in behaviour by evidence and not just by talking about values. While talking about values is interesting, demonstrating values and cultures is where the rubber meets the road. So as CEO, I can support and lead culture by making sure that I stay safe, that I start most meetings with a safety share, and by asking others to also be ready to do that. I actively go out to the drill sites, talk with employees, watch how they do their work, and talk to the engineers about designs.

“Also talk with our clients about how we are doing to see if they have ideas that we could benefit from in our safety programs. A lot of times, as a contractor, we blend in almost imperceptibly with our customer on site. So it’s key that we integrate across safety and supervision so that we’re not training people on two or three different programs, and that we really try to meet our clients’ needs while protecting our employees. And if we need to make changes as to what they want us to do, we talk about that openly with them and we keep our supervisors and site leadership involved.”

O’Brien also provides direction for the company’s OHS strategy, and he says this is important because it provides a framework for helping employees understand that safety is part of accountabilities as leaders and individuals in the company. To help support this, there are a number of safety committees across the business, including the corporate group and board level, which really looks after the entire company as well as its services and products businesses. “I think the real value from a committee comes in getting participation from those who are closer in safety out in the field and understanding how to reduce the level of their safety concerns and eliminate them over time, and to set the safety direction for the company in association with the board.”

Even though business is tough for Boart Longyear, O’Brien has supported ongoing budgetary support for training in safety. “There’s a balance in the downturn market we’re experiencing, and I think we’ve done a decent job making sure that we find the money to spend on what we want to do in safety. Whenever we cut I always worry that we may have cut the wrong area, and what I tell people routinely is ‘this is what we’re going to do, but if it doesn’t work I need to hear back from you so that we can come back and put additional budget back if we cut too far’. Safety is an area where we don’t cut too far. I would say training is one area in which companies probably cut a little more than they should in these kinds of tight time periods. We’re actually increasing our training budget this year.”

Boart Longyear has enjoyed a number of notable outcomes as a result of its focus on OHS. The most common kind of injuries among Boart Longyear’s workforce involve hands and fingers, and there has been a reduction in such injuries by about two-thirds since 2011, while there has also been a 60 per cent reduction in vehicle incidents (one of the top fatality risks in the business) over the same period. Its LTIFR has also fallen from 0.34 in FY07 to 0.11 in FY14, while its total case incident rate (TCIR) is down from 3.26 in FY07 to 1.35 in FY14. “When you look at our TCIR rate, our TCIR was at the lowest rate of 1.31 for 200,000 hours of work through the period ending April 30, 2015, which is what we shared at an annual meeting with shareholders in May. I think that rate of 1.31 would make us, as near as we can tell, probably the leading drilling company in the world when it comes to TCIR rates,” says O’Brien.

“Training is one area in which companies probably cut a little more than they should in these kinds of tight time periods”
A primer on prevention through safe design

An effective means of preventing and controlling workplace injuries, illnesses and fatalities is to “design out” hazards and unsafe exposure from the workplace, writes John Daly

Safety in design (SID), as it is known in Australia, is early intervention in the design process, to remove or minimise hazards or risks that may arise throughout the lifecycle of a structure – from the initial design concept and construction, through to handover and use/occupation of the completed project. It’s about identifying, assessing, controlling, and preferably, removing risks prior to implementation.

Safe design best practice begins at the conceptual phase when making decisions about:

• the design and its intended purpose
• materials to be used
• possible methods of construction, maintenance, operation, demolition and disposal
• what legislation, codes of practice and standards need to be considered and met.

Whose responsibility is it to ensure design safety?
Responsibility ultimately lies with the “designers”, however, it is important that this is a consultative process with the people who have the knowledge and expertise to share information, identify potential hazards, assess risk and make decisions about ways to minimise, or ideally eliminate those risks. This may involve clients, principal contractors, architects, engineers, landscape designers and interior designers, as well as workers and other end users (see Figure 1).
Designers are required by legislation to design structures to be safe throughout their life span. They must ensure, so far as is “reasonably practicable” – as defined in Section 18 of the Workplace Health and Safety Act 2011 – that the structure is designed to be without risk to the health and safety of all people involved with that structure throughout its lifecycle. This includes the health and safety of those involved in the construction or manufacture, those using the structure for the purpose it was designed, those involved in the maintenance, cleaning or repair of the structure, and even those who are at or in the vicinity of the structure.

How well do most organisations fare when it comes to safety design?

By identifying potential health and safety hazards early in the design process, designers can make informed design decisions to eliminate or minimise potential risks to health and safety. The most effective way to prevent injury, illness or death is to control the risk at the source.

Safety should be considered throughout the design process. Research shows that there is greater scope to remove foreseeable hazards if health and safety is considered from the commencement of the design process, according to RMIT University’s Centre for Construction Work Health and Safety Research Safety in Design 2014 report. Prevention is the most effective and affordable way to improve the safety of workers and requires the least effort compared with making changes at later stages.

Internationally, these principles of SID are relatively well known, with an ever-increasing body of knowledge and expertise adding to this. In Australia, recent changes to WHS legislation has attempted to better clarify existing obligations for clients, designers, principal contractors and other duty holders.

With respect to safe design in construction, the legislation in the UK (Construction (Design and Management) Regulations 2015 (CDM)) has quite specific requirements for duty holders. A broad range of guidance materials supports this. While Australia’s harmonised legislation has some aspects of the UK requirements, the major difference is the UK requirement for the appointment of a CDM co-ordinator for certain projects. Their role is specifically to advise and assist the client to meet their duties. This requirement, it could be argued, adds a level of control that the Australian approach lacks. In my experience, while companies are becoming more aware of the need to integrate safety in the design process, many have a limited understanding of SID requirements – particularly in how to meet their obligations under the legislation in a practical way.

For example, the oil and gas industry, as a high-risk environment with potential risk to the...
Common challenges for designers

Firstly, many organisations lack clearly defined systematic processes, which can be applied throughout the lifecycle of a structure. Due to the nature of the dynamic and iterative design environment, there is difficulty in applying a linear health and safety risk management process. Anecdotal evidence suggests that where designers and stakeholders do have methodologies or processes, these tend not to be consistently adopted in a robust manner.

The second challenge is clear ownership. There is often ambiguity about who is the “owner” of SID due to the complex nature of many projects, and the right people are not being engaged during the consultation phase to identify the potential SID hazards or solutions.

Many designers lack the knowledge and experience relating to construction in general, or health and safety specifically, so it isn’t a strong focus. There’s a lack of experience and knowledge for stakeholders to challenge the design structure.

The key to the SID process is involving the right people with good knowledge of the issues. RMIT University’s research found that design controls were more likely to be used when constructors were involved at the design stage.

The biggest mistake many designers make is assuming they do not need to do anything in relation to their duties under the WHS legislation. The reality is that designers in all states and territories have a legal duty to design structures, so far as is reasonably practicable, that are without risk to health and safety when they are used as, or at, a workplace.

Finally, these challenges are compounded by the inconsistencies of approach across regulatory boundaries. While attempts have been made to align this, and there is an intent by regulatory authorities to clarify and provide guidance to the industry, inconsistencies remain. It is not unusual for different statute requirements to be sometimes contradictory and lacking in practical detail.

Benefits of safe design

It has been well documented that devoting efforts to planning stages up-front has significant benefits. Eliminating hazards at the design or planning stage is often easier and more cost-effective than making changes later when the hazards become real risks in the workplace.

Safe design can result in many benefits (Figure 2), as summarised in Safe Work Australia’s Code of Practice 2012. These can include:

- a safer workplace
- reduction of injury, illness or death through prevention
- improved useability of structures
- improved productivity and reduced costs
- reduced costs over the lifecycle of a structure
- innovation, in that safe design can demand new thinking to produce low-hazard construction materials as well as resolve hazards that occur in the construction phase and in end use.

Figure 2

larger community, has a history of adopting SID principles and methodology; so too the airline and rail transport sectors.

In many of the major incident investigations I have observed over the last 10 years, there still appears to be a tendency to focus on lower order, administrative controls. Constantly, the first response tends to be training or retraining, updated procedures, and more or different personal protective equipment.

The true aspiration for SID is to actually minimise or eliminate the risk from the start. This tendency to implement administration controls runs contrary to the philosophical mantra consistently espoused by WHS professionals, academics and government agencies. We hear constantly about adopting a “hierarchy of control” and focusing on “above-the-line controls”, but how many companies really invest in or drive elimination, or design this as part of the product or project design planning?
Summary of duties of all parties

<table>
<thead>
<tr>
<th>Designer</th>
<th>Client</th>
<th>Principal Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consider safety throughout lifecycle as workplace.</td>
<td>• Consider safety throughout lifecycle as workplace.</td>
<td>Required for a construction project where the value of the construction work is $250,000 or more.</td>
</tr>
<tr>
<td>• Consult with client, workers, principal contractor and other duty holders.</td>
<td>• Consult with designer, workers, principal contractor and other duty holders.</td>
<td>• Ensure construction work is managed in a way that eliminates or minimises risk to health and safety.</td>
</tr>
<tr>
<td>• Consider people in vicinity.</td>
<td>• Consider people in vicinity.</td>
<td>• Consult with other duty holders.</td>
</tr>
<tr>
<td>• Undertake research, testing and analysis.</td>
<td>• Provide information to designer.</td>
<td>• Manage risks associated with the construction work.</td>
</tr>
<tr>
<td>• Provide safe design report on construction hazards to client.</td>
<td>• Provide information to principal contractor on safety including designer's safe design report.</td>
<td>• Secure the workplace.</td>
</tr>
<tr>
<td>• Provide safe design information on lifecycle to anyone issued with the design and on request.</td>
<td>• Comply with all SWMS for high-risk work.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3

maintenance costs, community engagement and reduced downtime.

The focus on customer satisfaction is also paramount, which is why integration of safety (in design), environment and quality management systems holds great promise for driving SID support with management, and customers.

Advice for safety professionals

SID operates on the premise that early intervention to remove or reduce hazards or risks is the most beneficial approach. Health and safety professionals should be engaged as early on in the lifecycle as possible in the consultation process, particularly during the pre-concept or initial concept development phase. The key considerations for WHS professionals? Understand your duties; develop processes; implement systems and training; and seek advice early.

Clearly, it is in the interest of all stakeholders to obtain quality input from WHS professionals at an early stage of design. It is important that designers have advice from a range of sources, but it is critical they understand and identify the nature of hazards at all stages of the project, and have good understanding of the risk assessment process.

And finally, in adopting design controls to remove or mitigate the risk, they need to ensure this meets the required standards. The role of safety professionals is to advise and support stakeholders at all phases of a design's lifecycle. The role and expertise of safety professionals must be well defined – are they experts of risk management processes and WHS legislative obligations, or do they have specific knowledge and experience in technical aspects as well?

While there are clear statute obligations for people involved in designing structures (Figure 3), a safety professional should ensure:

• safety in design is part of an organisation’s culture, and leadership supports SID principles and concepts
• safety in design is integrated into an organisation’s management systems
• organisations have access to the capabilities and skills required to implement SID
• assurance processes monitor, assess and continually improve SID performance.

If there was one simple piece of advice to offer, that would be: ensure people are engaged to ask the hard questions early. Too many times it is left until it is much too late – and this, we know only too well, can have both human and commercial consequences.


John Daly is an international safe design expert and HSE professional, and owner/director of Safe Design Australia which has published the Safe Design in Practice eBook for designers, architects and engineers. The free resource can be downloaded at www.safedesignaustralia.com.au.

For more information, email info@safedesignaustralia.com.au
Ann Sherry: guiding the safety ship

Craig Donaldson speaks with Ann Sherry, chair of Safe Work Australia (SWA), about her greatest professional achievements, challenges and goals, and the evolution of the OHS profession in Australia

What has been your greatest professional achievement as SWA chair?
The major thing that’s happened since I’ve been there is that rates of workplace-related death and injury have actually been declining, and I think that’s testament to having one system that people can understand. We have harmonisation, and this has been an incremental journey. Each year it gets better and better. The Model work health and safety legislation has been rolling out since 2011, and hopefully we’ll get Victoria and WA into the tent sooner rather than later and that will complete the journey. As this legislation has been adopted and enacted, I think this provides a higher standard of health and safety. So people are more aware of their obligations; they are much more top of mind than they once would have been, and now in most businesses it is part of the way you think about doing business.

What have been your greatest professional challenges?
It’s not always easy to get consensus in a tripartite body. I’ve been very focused on finding points of agreement rather than focusing on areas of disagreement, of which there are always a few. Bringing a business voice to this has been interesting as well, because people around the table are often from state governments and sometimes say “well, actually, this is how it really works” rather than “this is how it should work from a regulator point of view”. My challenge is to be the independent chair, but also to have a view and have a voice.

Some of the fixes in health and safety are complex and many things intersect. Just talking about health and safety as though it’s not connected to work practices or standards, or just the risks individuals are prepared to take themselves, diminishes our effectiveness. So one of the challenges in an organisation like this is to keep the whole picture in mind and not just argue about the meaning of words to get a regulation right, for example. So in drafting codes of practice or guidance material, this has to be done in a way that the end user can understand, implement and practically adopt in workplaces, so that they are top of mind for people in what they are doing all of the time. If we write stuff from an academic perspective and make it complex, people will just ignore it or throw it away, because they don’t understand it.
How well have organisations gone about complying with the letter and the spirit of the Model Work Health and Safety Act?

I think there is generally much greater awareness of health and safety. I see it everywhere now. But it’s not part of a conversation that every management team has, and I think increasingly, work health and safety will become part of those broad management conversations and a set of broad management accountabilities. This is particularly true in big businesses which really have the resources and wherewithal to drive this harder. But I think it’s true in small businesses as well. With another hat I wear, I see this in places like docks where ships are loaded and other workplaces and worksites, with people wearing earmuffs, eye gear and other personal protective equipment that was optional not that long ago. People who work for the shipping lines are wearing long sleeves; once they would’ve been wearing singlets in the sun. So I think the whole mindset around health and safety has fundamentally shifted.

What is one of the most common problems business faces in making OHS a practical reality?

There are differences between large and small business. Small business still says there is a lot of information they receive and need to be across, and making sense of what’s really important takes a lot of time. That’s why we’ve been much more focused on writing simpler codes and getting material out through employer organisations and industry associations so they can help in translating and delivering it. But the volume
of regulations, legislation and information that pumps down the pipe at businesses which employ fewer than five people is probably quite significant. So we keep thinking about how we can do that in a smarter way, especially given many smaller businesses work across state boundaries. Often at state government level, there’s not much consideration given to how things might feel if you employ 10 people and you’ve got an operation in Sydney and Melbourne. We need to think about keeping information consistent across states and keeping it translated well in a national context.

**What is your perspective on zero harm?**

As an objective, zero harm is what we would want everyone to have. The reality is we don’t, and no one should expect to go to work and be hurt. If you do have zero harm as a mindset, you’re more likely to be thinking about the areas, the issues and the places which lead to harm in the workplace. If you look at the changes in mining over the past 20 years, for example, there has been a very strong focus on zero tolerance of deaths and injuries. The companies that have adopted this approach have had the most radical changes and outcomes. And ultimately, we’re looking for changes in the outcomes. We want tasks to be done safely. We want plants to be operated safely. We want people to be able to go to work safe and come home safe. If zero harm makes that happen – and it has worked really well in lots of organisations – then I’m supportive of it as a notion.

**What can businesses and regulators do to help progress the Australian Work Health and Safety Strategy 2012-2022?**

I think it is very important to really focus on good work design. Being able to apply good work design principles, thinking about how to put jobs together and creating tasks with good design principles behind them – at every level of an
what happens through an entire supply chain and ensure good health and safety is part of the way people think about their supplier. Many big organisations work with a lot of suppliers, but they could be working more effectively through their supply chains to make sure that their standards are as good as those of the larger organisations.

And rather than leaving everyone to their own devices to do this themselves, there’s an opportunity to create more co-operation and leadership in organisations that have supply chains. It’s the idea that you use people who’ve got resources, to help people who maybe have fewer resources – but actually you just make it part of the way you want others to do business with those who are doing business with you. So we look at things like small delivery drivers or small producers, for example, who could all benefit from having a clear understanding of what’s required of them if they’re part of a supply chain.

**What can OHS practitioners do to take the profession to the next level?**

There is an opportunity to stop speaking so technically about health and safety. While there is a technical unpinning to OHS and a science behind some of the practice, this language needs to be demystified in the workplace. It’s hard to get managers and businesses to take on issues if they feel as though they’ve got to have a degree in health and safety to even understand it. So it’s important to simplify the technical language of OHS and make it more accessible, and speak the language of business. There are opportunities in this.

Health and safety professionals also need to understand more about organisational design and organisational change, because to get things to change in businesses you’ve ultimately got to be able to articulate the case for change. So it’s not enough just to jump up and down and say “this is right and this is how it’s got to be done” without explaining why, how and what needs to change to make it happen. There are probably plenty of people going down that path, but I think if there were more, we’d probably get faster change.

The other important point is to share good practice. Health and safety is like any other technical field, where everyone just does their own thing. Occasionally, people come together and occasionally, academics write things, but what we need is practitioners writing about what’s really worked. I think most businesses would pick up good ideas if they could find and understand them. I guess it’s easier said than done, but that’s a mindset as well; if you see something that’s great, tell everyone about it. We need to make sharing and spreading this good word a habit.
How to keep OHS skills sharp

Training and education for OHS professionals is becoming increasingly important. Craig Donaldson explores the drivers behind this trend and examines how OHS practitioners can get the most return on their investment in any formal learning program.

There have been a number of important trends and developments in the OHS training space, according to a number of experts, who say OHS has evolved in a range of ways to keep pace with business. Within vocational training, developments in the education and training sector generally are also affecting OHS training and education, according to Phillip Gilmore, a teacher in OHS at VIOSH, Federation University Australia. These trends include an increased number of providers, more variety in training and education modes, increased use of technology, and more flexible learning formats.

“Some trends are concerning. One such trend is towards quick, easy certificates through cheaper and extremely short courses. Feedback received by some safety professionals and practitioners questions the validity of five-day courses, especially when the same courses once took 12 months to complete,” he says.

“It seems to me that a law and order approach may lead to smarter avoidance of prosecution and superficial adherence to rules, rather than dedication to enabling better learning. One concern is that a more ‘tick box’ OHS training approach is emerging, meaning there is limited vision beyond how long it takes and how much it costs to get a certificate. This has put pressure on providers to compete with profiteering providers with less concern for learning.”

However, Gilmore says there are other trends that do affect actual learning where it is taken seriously, and these include occupational risk profiles in business, changes in technology for management of OHS, and a proliferation of terminologies for similar things. More specifically, he says these include increased importance of psychosocial hazards; use of new equipment/technology in monitoring workplaces; changes in legislation, standards, and accreditation or certification requirements; and for terminology, consider JSA, JSEA, JSR, SWMS, SWIC, JSSEQA, SOP, MSDS, SDS – and so on.

“Effectively, there are two types of development in OHS training and education. There are developments meeting technical/functional need and those meeting social/perceived need. A need for shorter training periods is more a social convenience. It would be great to achieve, but it ignores reality. People have not been re-engineered to learn more in shorter periods. Improvements in education acknowledged, what took 12 months to learn in the past, such as a Cert IV in OHS, cannot really be done in just five days. These shortcut courses have real implications for student and business outcomes and practice.”

AIMM Industrial Training’s Bill Henman also says OHS has seen a significant amount of legislation and regulations introduced in the past few years, and industry is very mindful of litigation, resource time applied and associated financial costs. “Large and medium-sized businesses have the infrastructure to assist with
“People have not been re-engineered to learn more in shorter periods”

compliance, while small businesses are the ones that suffer,” he says.
Companies are also introducing OHS software systems to ensure that employees have the necessary training supported by documentation and licences where necessary, says Henman. “Courts look for documentation and lawyers drill down in every document. Bullying is a hard risk to monitor in a workplace, especially on construction sites where the work is done in small groups. This is a financial cost to everyone,” he says.

Since the introduction of harmonised WHS laws, Henman also says many companies are introducing “verification of competency” (VOC) processes, whereby employees are assessed by a training organisation against a unit of competency of assessment instrument and documentation introduced.

Henman also says fatigue management, initially introduced to manage heavy vehicle fatigue, has flowed through to all industries including healthcare. The legislation introduced in 2008 has seen significant changes in working attitudes and changed the workplace culture of many companies. “This has seen many trucking companies close down as they were unable to use their current business model or be profitable,” he says. “Chain of responsibility [COR] is impacting on all businesses, but the method of introducing the legislation is a very poor process. If government is serious about COR they should include it in WHS legislation.”

Driving trends and developments
There are a number of drivers behind these trends and developments that correspond to changes in business, according to Gilmore. There is continued deregulation and liberalisation of Australia’s economy, combined with economic pressure forcing businesses to narrow their focus and outsource more inputs to their business. “Compliance with WHS laws drives demand that contractors have WHS systems and competency. Greater scrutiny by government and media (including social media) makes it necessary to have the right boxes ticked,” he says. “Technological change is a major driver of trends and developments for business, and education
and training. Productivity increases drive greater use of technology and put pressure on people to learn new ways faster.

New OHS risks arise that must be confronted by business, and Gilmore says these require educated and trained responses from people. “In fact, change itself increases psychosocial risks. Increased casualisation and outsourcing to contractors complicates employment and management of safety. Demand for OHS-credentialed staff increases – theoretically to support business in addressing risks and complexity of risk.”

Paula Williscroft, practice manager for The Next Group (which includes a HSE recruitment arm, The Safe Step, and HSE consulting arm, The HSE Space), also says engagement and economics are the two key drivers behind changes in the OHS training space. "On the engagement side, we find that for many businesses the safety journey has plateaued; compliance systems are rolled out, workers’ compensation etc has been controlled and managed to the best possible levels recorded, however, there are still emerging issues that need different approaches and, fundamentally, leadership from the OHS function," she says.

“Sustaining the engagement of the workforce through empowering operational leaders in the business to drive safety is key”

“Sustaining the engagement of the workforce through empowering operational leaders in the business to drive safety is key, and as we know, many businesses have only just started getting to grips with the wellbeing agenda.”

Embedding the systems and changes that OHS has initiated in business is the real challenge now, and Williscroft says this requires great resilience and proactive stakeholder management. “On the economics side, most businesses are constantly reviewing their P&Ls, seeking efficiencies and driving more value. The pre-GFC levels of investment in support functions such as OHS have gone, arguably forever, and technology has enabled greater efficiency and innovation opportunities,” she says.

“The OHS function and professional need to be able to demonstrate their direct impact on the value chain, and this requires a very different conversation from the compliance discussion. OHS professionals need commercial acumen and superior communication and influencing capabilities, and not just at the most senior levels.”

Applying and embedding training

As with all learning opportunities, if a professional has an opportunity to practise the new skill, then there should be an improved return on investment. Gilmore explains that OHS practitioners and professionals can make the best go at applying their improved OHS skill set by making a small start. Effectively maintaining what is learnt requires application of regularly refreshing, and he says the small start consists of identifying an opportunity to use evidence-based information and practice in their workplace that gently confronts fixed practice. “Innovate in the workplace, so what is learnt is used. Practitioners led by staid professionals simply fall back into the status quo. It takes time and people skills to innovate effectively. Practitioners and professionals both need to build influencing innovation skills by learning more or by taking it slow, building up small wins,” he says.

Other than a small start in your own workplace, Gilmore recommends finding other opportunities to use learning that will maintain it until opportunity arises in the workplace for use. “One way is to pass it on to others. Teaching others is a great way to reinforce, refine and improve learning. This can be done through mentoring new professionals and practitioners, entering into peer supervision arrangements, and ‘paying back’ the learning through volunteering to teach or present to new OHS learners at all levels. Tradespeople have been ‘paying back’ for centuries by tutoring and supporting apprentices,” he says.

The challenges of the workplace

OHS professionals face a number of challenges back in the workplace when it comes to making the most of their learning, including:

• pressures to do the same old things the same old way (to conform, “this is how we have always done it”)
• workload pressures, because you have to maintain the status quo until innovation can be put in place
• management expectations – to provide magic bullets, and not to challenge current practice
• insufficient resources for innovation
• a rule-bound workplace culture that stifles OHS benefits of a more flexible approach
• personal commitments – it takes time, and it may be their own time.

“There is no substitution for positive persistence when it comes to overcoming all these boundaries,” says Gilmore. “I have learnt the constant of success stories is that people kept going until they achieved. If you’re not positive, negativity will stop you or block you. Maintain a positive outlook no matter what. Get with people who are positive, successful and supportive; this rubs off on you and maintains the spirit to keep going. Always remember, positive persistence pays.”

Future OHS trends
Flexible learning through training is an obvious trend into the future, and Gilmore says people will realise that they learn best in groups.

Further, more value will be placed back on face-to-face learning. “Just like when the novelty wears off on a new toy … In the end we are people and, as such, social creatures. I’m constantly confronted by people who say they want to learn face to face, but there is less opportunity to do this in OHS. These people then also get confused by the attraction of the quick-fix online offers and give up on real learning,” he says.

Henman also pointed to mandatory drug and alcohol testing on construction sites and other high-injury sectors, as well as more responsibility placed on the employee and less on the employer. On the legal front, he observed that more legislation with ever-increasing differences between states and territories would likely rise, as would casualisation and the use of labour hire companies. This will lead to the use of more safety systems using technology, as well as more people employed as WHS or SHE officers, says Henman.

Williscroft also pointed to the emergence of new operating models for OHS functions. “New roles will demand new skills; the OHS professional will be required to continue their development beyond their Diploma of Safety or their Masters. Professionals will be required to acquire new leadership skills fast,” she says.

“Technology will continue to replace much of the transaction/administrative/knowledge management tasks required, and we will see the continued emergence of roles providing OHS data analysis and predictive insights to key stakeholders. The focus is on value-adding leadership and commercial acumen as well a technical know-how and solid execution, and therefore, roles will be more challenging and arguably more interesting.”

OHS in the tertiary education sector
One of the most significant trends in OHS education in Australia over the past five years has been the development of the course accreditation by the Australian Occupational Health and Safety Institute (AOHSI).

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Accreditation Board to meet the knowledge requirements outline in the OHS Body of Knowledge (BoK), according to Associate Professor Sue Reed, course coordinator: postgraduate OHS programs in the faculty of health, engineering and science at Edith Cowan University (ECU). “The accreditation means that universities need to ensure that accredited courses are current and meet the needs of business,” says Reed.

“The need for better qualifications is a result of the push by the professional bodies to improve the standing of OHS professionals. This, in conjunction with the downturn in the resources sector, means that OHS professionals need to be better qualified to get the better jobs ... Businesses want to know that they are employing professionals, with the appropriate qualifications, who are able to provide value for money. A good professional should be a cost positive, not cost negative, to a business.”

**Online learning trends**

Most students today are also looking for courses which are flexible and can fit in with the need to work, as well as allow for appropriate work/life balance. Few students, especially postgraduates, study full time, and Reed says online learning has allowed more students in remote areas as well as those who are time poor to study.

“Students can also take a break when work pressures and/or life pressures mean it is impossible to study at the time, and then return [to study] later when the pressure is less,” she says. “Not only do students study remotely, but the use of online learning means that universities can use the best teachers for specific subjects. Many teachers may be remote from the university campus.”

Online learning is more popular because many professionals have difficulty in getting time off work and/or away from the family to attend university, and Reed says the cost of attending university is also seen as a deterrent by some.

**Training and business trends**

OHS professionals need to work within organisations to integrate the health, safety and risk framework into every part of a business, according to Reed. “It will not work if it is an add-on,” she says. “They need to work with the various levels within an organisation to advise on the acceptable level of risk, and then work with management to design appropriate interventions. OHS professionals should be kept out of managing operational risk.”

Reed observes that there was a trend towards hiring graduates who do not have many practical skills, but this has now changed and she says businesses now tell universities what they need in graduates. Consequently, academics are...
required to have significant industrial experience in conjunction with research, she says. “The lecturers at ECU have real industry experience which is embedded along with the theoretical component in the learning material.

“This will enable the graduates to apply their theoretical knowledge to real-life/workplace situations. This will be through the provision of sound advice to facilitate OHS for their organisation at the senior executive level, initiate OHS programs and provide input into OHS on-site training for leaders and staff to help implement OHS initiatives.”

One area that all university programs need to focus on is how OHS can become part of the core business of all organisations and not be seen as an add-on “nice to have” when things are going well, according to Reed. “In the current business climate there is less emphasis on OHS, because resources appear to be focused on ‘staying afloat’ and there is more concern about financial issues. To address this, it is important for OHS professionals to be able to promote and state the OHS business case, which will save money and prevent injuries,” says Reed, who adds that ECU has addressed OHS certification and the OHS business case in a core unit in both the Graduate Diploma of OHS as well as in the Masters of OHS.

“A big challenge is the requirement that all programs keep up to date as well as look for areas of continuous improvement in this technological age,” says Reed, who pointed to a number of areas where changes may occur in the next five years. These include the integration of leadership into all programs as well as the assimilation of OHS risk management into courses such as engineering, and Reed also says business needs will drive the direction of courses in the future, with specialist units covering issues related to that industry.

There will also be more virtual classrooms, where lecturers present directly to external students and provide recordings for those unable to attend the initial lecture – but still supported by “hands-on” practical experience for subjects like occupational hygiene in which students need to demonstrate they have mastered the equipment need, she says. “We can also look forward to the inclusion of the best OHS initiatives from best practice companies into the curriculum – through consultation with industry partners,” says Reed.

“Practitioners led by staid professionals simply fall back into the status quo”
Innovations in work health and safety
The SIA National Safety Convention 2015 will be held from 16–17 September at the Melbourne Convention & Exhibition Centre

As the premiere conference for the year, the SIA National Safety Convention 2015 will bring thought leadership to the forefront and encourage national and global involvement and networking among industry professionals. The convention aims to provide new directions to age-old safety challenges, with speakers including Michael Lutomski (former risk manager, International Space Station (NASA retired)), Rosa Carrillo (president, Carrillo & Associates), Jennifer Taylor (CEO, Comcare), Nigel Hadgkiss (director, Fair Work Building & Construction) and Dr Sharron O’Neill (senior research fellow: International Governance and Performance Research Centre, Macquarie University).

High-hazard industries need leadership communication boost
Rosa Antonia Carrillo, who specialises in transformational culture change and leadership development, and will be speaking at the convention as well as the Dr Eric Wigglesworth Memorial Lecture 2015, said the biggest inhibitor to effective safety performance in high-hazard industries such as nuclear power, airlines and healthcare is the failure of upward communication.

Carrillo added that poor communication is also a common theme in major accident investigations. “For example, it is common to find that for quite some time people had concerns or they had noticed a problem, but the information didn’t reach the executive level so that they could act on it,” she said. “It is sad to see how many fatal accidents, such as the Challenger and Columbia shuttles as well as the Macondo oil well explosion, might have been prevented if senior leaders had been able to hear and recognise the evidence being presented by those lower down in the organisation.”

Other times, breakdowns in communication are around directives about expense control that were interpreted as “we can’t spend money on preventative maintenance”, or ‘production takes precedent over safety’, said Carrillo, who noted that while some of these problems are due to poor communication skills, a deeper problem is lack of trust between management levels and employees.

“It is time that leaders assume total responsibility for open, accurate communication and hold themselves accountable for preventing such breakdowns that ultimately lead to failures. Leaders need to ensure that their systems and processes are working effectively,” she said.

However, most leaders aren’t comfortable in the field conversing with and coaching employees. “Behaviour observation programs focus on recording behaviours, but important interaction is missing. Leaders need to develop the skills to ask open questions and listen in a way that makes people feel heard, understood and respected. Unfortunately, most people in the field don’t experience interactions with leadership as helpful,” Carrillo said.

Because leaders are seldom present and involved in these conversations, Carrillo said people view leaders’ visits as an audit during which they will find something wrong. Even when the audits result in recognition of good safety practices, she said the focus is usually on easily measured things, such as physical safety practices and procedures – while ignoring the state of trust and open communication. “This happens because it is hard to measure this state and it is even harder to fix when it is broken,” said Carrillo. “Recently, a safety professional mentioned to me that the CEO had held open meetings and asked people to tell him their safety concerns. It was a waste of time, because no one talked about what was really going on. We can’t really expect people to open up after one session, when history has shown that leadership doesn’t listen and doesn’t act on concerns.”

Why OSH professionals are telling the wrong stories
Also speaking at the convention is lecturer in the school of humanities at Griffith University, Dr Drew Rae, who said organisations waste too much time focusing on safety from the perspective of how they imagine work is practised, and OHS professionals can add genuine value through providing their organisation with a true picture of work as it is actually done.

“Danger comes from the gap between work-as-imagined and work-as-practised. We spend far too much time trying to close the gap in the wrong direction, through futile attempts to make practice comply with imagination. Middle management bureaucrats can do this without any help from safety bureaucrats,” said Rae, whose research expertise lies in the areas of safety management systems, organisational accidents, safety analysis techniques and risk assessment.

Storytelling could play a more important role in the OHS profession as long as it was focused in the right direction, he added. “I often ask safety professionals what expertise
they hold that gives them the right to interfere in the work of others,” he said. “Knowledge about generic safety practices doesn’t count; there’s very little evidence that risk assessment, safety promotion, incident investigation, take-5s or anything not directly related to the physical equipment and the work itself have any impact on safety. So what are safety people actually good at?”

Rae argued that the safety function is “an organisation researching itself”, and a small amount of this is quantitative research, looking for trends and patterns that can warn of danger or suggest opportunities for improvement. “Mostly, it is qualitative research – collecting stories, distilling stories to identify themes and categories, and reporting those themes and categories along with thick descriptions of work, rich with examples taken from the mouths of the workers,” he said.

“In safety, almost all stories are about things going wrong. We trot out injured people as object lessons in what can happen. We justify the big movements in safety practice by pointing to big disasters. Safety culture is important because of Chernobyl. Leading indicators matter because of Texas City Refinery. Deepwater Horizon and Piper Alpha show why we need safety cases. If you look at any safety practice, and ask ‘Why should we be doing this?’, then keep digging and digging; ultimately the answer will be a story about something bad that would happen if we stopped.”

“The problem is that this isn’t just rhetoric [which is] used to explain safety practices; it has become part of how safety practitioners see the world. A lot of effort is spent on collecting and over-analysing stories about things going wrong. We even keep count of the number of stories we’ve collected. When we aren’t collecting stories, we’re creating new stories about what might go wrong. We don’t usually call our work ‘storytelling’. We call stories about the past ‘incident analysis’ and stories about the future ‘risk assessment’. They are still stories, though.”

**The evolving safety role of leaders**

Director of The University of Western Australia’s Centre for Safety, Mark Griffin, will also be speaking at the convention on how well most organisations fare when it comes to leadership and understanding evolving safety concepts. Most organisations recognise the importance of leadership and aim to support capability at both local and senior levels, he said.

“Leadership is often viewed as one of the key ways to improve well-functioning organisations to operate at even higher levels of success. Leadership is also often recognised as a barrier to further improvement. So, overall, there is a real commitment to understanding the role of leadership and improving skills and opportunities at multiple levels of the organisation,” said Griffin.

However, a major challenge is integrating new and changing safety concepts with current leadership systems. For example, Griffin said new concepts around adaptability and safety seem critically important for understanding how organisations as a whole manage safety in complex and changing environments. “But how are these ideas of change linked to leadership structures, leadership training, and the recruitment and promotion of leaders? This is a bigger challenge, particularly in companies working in hazardous areas such as construction and mining. Too often, leaders are not given the role, the time, or the opportunity to work with teams in a way that builds an adaptability rather than compliance,” he said.

Mixing top-down and bottom-up processes seems to be one of the biggest and most urgent challenges, according to Griffin, whose research recently investigated how procedure management linked to teamwork, safety, and reliability in maintenance crews. The results clearly show that maintenance workers need to be engaged in the way procedures are designed, reviewed and implemented. At the same time, consistency in design and implementation of procedures is essential. “It is more common for organisations to manage consistency before engagement, but this can be counterproductive and actually lead to less consistency in procedures. Leaders need to find ways to ensure both top-down and bottom-up processes are managed well and overcome a tendency to manage the top-down process well at the expense of bottom-up processes that involve employees,” he said.

OHS professionals play a key leadership and co-ordinating role, said Griffin, who explained that the leadership role is a challenging role because it is generally not well defined. However, many important leadership actions such as learning from mistakes and developing a safety vision can be greatly enhanced by OHS professionals. “The co-ordinating role is increasingly important in team-based and complex organisations. The OHS professional is a ‘boundary spanner’ across diverse functional groups. In this situation, it is difficult for the OHS professional to rely on a single set of technical skills; they instead must draw on a range of integrating skills that link technical experts across fields and work areas,” he said.

Occupational Risk Control: Predicting and Preventing the Unwanted

By Associate Professor Derek Viner
Published by Ashgate, 2015
Reviewed by Dr Liz Bluff

Occupational Risk Control: Predicting and Preventing the Unwanted presents a theory of accidents and risk, and its implications for the practice of risk control and management. The theory and its practical application is built on the author’s several decades of experience in consulting and teaching in the areas of risk engineering and the management of risk.

The book begins with a description of the accident phenomenon and the history of attempts to understand and mitigate risk – encompassing societal attitudes to injury and disease, Heinrich’s dominos and other interpretations of accident causation. The author then takes the reader through understandings of the processes of damage and loss, risk as uncertainty, and processes for identifying, describing, estimating, controlling and evaluating risk. For these topics, the author introduces readers to concepts and models he has developed for examining risks. There are also insights into the logical classification and analysis of risk, and prevention through design and intrinsic safety of plant and other designed objects.

All of this material is grounded in the foundation concept that it is energy that causes harm and, as such, the control of risk requires the effective analysis and control of the different types of hazardous energy present in a particular system or environment (work or otherwise). From this essential foundation, the reader is led through an objective approach to understanding accident processes, risk as uncertainty surrounding the process leading to damage and loss, and how probability and exposure can be combined to produce an objective definition of risk and loss. The book also highlights the importance of recognising what type of risk control measures are appropriate when risk is determined by invariable conditions, and the need for dynamic and responsive controls when risk is significantly affected by circumstance.

An essential and also very helpful underpinning of the book is a very comprehensive glossary. As the title of this section of the book suggests, “definitions reduce confusion”. While many of the terms and concepts are those discussed and applied in the book, they have wider application in the practice of risk control and management. There are also many informative figures and tables that help clarify the subject matter in each chapter. For example, there is a useful table listing and describing different types of energy and an application of this in the real-world setting of an open-cut coal mine, which identifies where specific forms of each energy type are found in this kind of work environment.

“An essential and also very helpful underpinning of the book is a very comprehensive glossary”

The book is an important text for studies in risk engineering, risk philosophy and risk management, and the accident phenomenon more generally. It will also be a valuable resource for those with responsibility for managing risks to health and safety (at work or otherwise), and others interested in developing preventive capability, fully understanding the processes of damage and loss, and steering clear of blame, fault finding and the unhelpful belief that safety is “common sense”.

Reviewed by Dr Liz Bluff, Research Fellow, National Research Centre for OHS Regulation.
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