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APRIL/MAY 2014

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ON THE COVER



DriveSafe Pro is the NRMA's corporate driver training program especially designed for businesses to improve the driving habits of their employees. Whether as a driver, passenger or pedestrian, using the roads is the single biggest risk most people take on a daily basis and driving as part of your job increases this risk significantly. In fact driving represents the highest incidence of work-related fatalities.

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For more information:

1300 696 762
www.nrmasaferdriving.com.au/driver-training



FALL PROTECTION: I HAVE MY GEAR. NOW WHAT?

*Michael Biddle**

Let's face it - accidental falls on the job happen. Even workers with extensive working-at-heights experience can lose their balance, trip or misstep. The danger of falling at height is real and can bring devastating consequences.



In Australia over the eight-year period between 1 July 2003 and 30 June 2011, 232 workers were killed following a fall from height, which represents 11% of all fatalities recorded in the period. The leading cause of worker fatalities on construction sites is falls, accounting for 37% of all deaths.[^]

Fatal falls are often the result of a failure to follow workplace safety procedures, a lack of proper safety gear to perform the job, or the misunderstanding or misuse of equipment. The reality is that the effectiveness of fall prevention and protection equipment, no matter how durable or reliable, is compromised when workers don't use products correctly.

When do I use fall protection?

Many buildings or structures that require regular maintenance have safe access systems in place - for example, the use of parapet walls on commercial buildings, combined with walkways, guardrails complying with AS1657. Where there are no alternative practical means of access, fall protection equipment may be required.

To ensure the safety of their at-height teams, companies need to get serious about fall protection equipment and learn what systems and components are ideal for each job. Safety gear is not one-size-fits-all, nor is it one-product fits-all-applications. Provide the best job-specific equipment and ensure your workers are knowledgeable about the products they use and their safety will be maintained.

Choosing your equipment

Different scenarios require different equipment. When it comes to fall protection equipment, there are four functional categories:

1. Fall arrest

This is used if there is any risk that a worker may fall from an elevated position. Fall arrest systems only come into service when an actual fall occurs; in other words, the device is designed to arrest a fall in progress. A typical fall arrest system is composed of a full-body harness with a shock-absorbing lanyard or retractable lifeline, an anchor point and a means of rescue.

2. Work positioning/restraint technique

A positioning system holds the worker in place while keeping his or her hands free to work, whereas a restraint technique system allows a worker to egress towards an edge but not fall. It's important to remember that under AS/NZS1891.4, while a positioning system is not specifically designed to arrest a fall, all of the equipment used to create the work position must be rated for fall arrest. This was added to the Standard in 2007 due to the possibility that a person using work-positioning equipment may have a change in their environment that moves their circumstance from work positioning to fall arrest and therefore need to protect the person following a freefall. Such a circumstance might be the collapse of a balcony, a fall through a skylight when traversing a roof or other similar event.

3. Suspension

Suspension equipment lowers and supports the worker while providing a hands-free work environment. A suspension system's components are also not required to arrest a freefall, so it's crucial to use a backup fall arrest system in conjunction with a suspension system in the event the circumstances change.

4. Rescue/retrieval

This component of a fall protection system should be in every Safe Work Method Statement; however, it is often forgotten or ignored. In the event of a fall, retrieval equipment is needed to rescue or remove a worker and bring them to a safe level. This could be either a self-rescue or a peer-rescue, depending on the particular situation. Such devices include tripods, davit arms, winches and comprehensive pre-engineered rescue systems. Choosing the right descent and rescue equipment depends on the jobsite and the task being performed.

Training: a vital tool to a safer workplace

Formal training is crucial for any person who performs work at height - no exceptions. Without such training, workers may not fully comprehend that the severe consequences of a fall, including serious injury or death, can happen.

All employers should provide training programs tailored to their specific job tasks and environment. Training sessions can cover a variety of pertinent topics, such as:

- identifying, eliminating and controlling potential fall hazards
- inspecting, using and maintaining fall protection equipment on a regular basis
- executing the tactics within a fall protection plan
- compliance with applicable industry standards

A detailed overview of the recommended 'levels' of training required from a worker through to a site manager is detailed in AS/NZS1891.4, section 2.2.11 and also Appendix E.

Employer obligations

The statutory obligation to provide a safe work environment for all workers and visitors to a site rests with the site owner. Given that construction sites are typically littered with many hazards including falls, it is critical that all relevant state regulations, codes of practice for safe work at height and the Standard AS/NZS1891.4 are closely observed. All these guidelines specify the involvement of a competent person to undertake tasks on a worksite. AS/NZS1891.4 defines a competent person as someone with "the skills, education and experience to perform a specified task". It is up to the employer to ensure that only those people performing working-at-heights activities are competent to do so.

How do I determine if someone is competent?

Regrettably, there is currently no licensing or defined requirements by regulators to determine what a competent person actually is or 'looks like'. It is therefore contingent on the employer to be able to assess a person's competence to complete a set of tasks. One way they can achieve this is to obtain from the employee certificates of competence from a reputable training organisation specific to work-at-height activities, along with a résumé of their various work activities.

The employer may alternatively take the decision to provide competency-based training regardless of prior skills, to ensure they have a standard level of skills across all employees undertaking work.

Who should deliver training?

Fall protection training is best delivered by training organisations that specialise in vocational training and assessment. In Australia, registered training organisations (RTOs) are independently assessed by the Australian Skills and Quality Authority (ASQA) for their ability

to deliver competency-based training against a strict criteria. TAFE colleges and private training organisations are examples of RTOs. They should be able to provide you with a registration number to validate their status as a current provider. Another method to validate their competence is to identify their details on the www.training.gov.au website, which will also allow you to verify the nationally recognised competencies they are registered to deliver.

Types of training

Since workers typically learn the most by watching first then doing, it is best to conduct a fall protection training program with an equal amount of classroom and hands-on instruction. The key with any training program is to provide learning that approximates actual work conditions so the workers can easily apply what they've learned to real situations.



Classroom training

Most classes combine lecture-style training, including slides and video, with group discussions to apply theory to practical applications. Training manuals should be provided for workers to reference both during and following the course. Important topics to address include fall energy and how to accurately calculate fall clearance.

Equipment demonstrations and tutorial videos can also be provided during classroom training. From here, workers should be prepared to move onto practical applications where they will experience firsthand how to properly use equipment and execute the fall protection plan.

Hands-on training

Hands-on training allows workers to learn by doing and gives them the opportunity to

be corrected in a controlled environment. When talking about a harness, for example, there is no substitute for putting it on and having it adjusted properly, connecting to an anchor, experiencing how it feels and seeing firsthand what needs to be inspected before use. Workers can also conduct mock trials of the fall and rescue procedures to become familiar and comfortable with the tactics in their plan. Hands-on training is by far the most effective and most desirable type of fall protection training.


Hands-on learning experience can be offered either on or off the worksite. Courses at an off-site facility provide controlled environments uniquely designed to offer practical experience. On-site courses, on the other hand, apply professional training to your specific daily work activities. By training in and around the workers' normal environment, workplaces can ensure that the issues discussed are immediately applicable to its employees.

Assessments

Training courses should be competency based, with each course having a specific and relevant unit of competency as indicated by the learning objectives and lesson plan. With these types of programs, writing assessments and/or hands-on exercises are to be completed by workers to show knowledge retention of the presented information and the ability to apply it in a work-like environment.

The bottom line

Equipping your team with the right fall protection equipment is a vital step towards a safer jobsite. However, none of it will make a difference unless each and every one of your workers knows how to use the equipment and, simultaneously, understands the consequences of not using it.

Invest the time and effort to ensure your employees not only have the right gear for a given job, but are also using it correctly. Nothing is more paramount than a safe, application-appropriate fall protection system for your workforce. 

**Michael Biddle is Managing Director for Capital Safety, Australian and New Zealand and the current Chair of the Working at Heights Association (WAHA).*

^Source: Work related injuries and fatalities involving a fall from height, Australia, October 2013, published by Safe Work Australia.

Capital Safety Group (Australia)
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Safety work boots for women

The she wear range of safety-compliant work boots is designed for women who are required to wear safety-compliant footwear.

The range is made from rubuck leather and features a steel toe cap, Goodyear welt construction rubber sole (antistatic, anti-slip, oil and fuel resistant and electric shock absorbent heel), a specially designed lining to keep feet cool,

dry and comfortable and an extra padded insole.

Available in bright colours including pink, red and green, the boots have been tested to comply with Australian/NZ standards (AS/NZ 2210.3:2009, class 1, specification s2).

She Wear

www.shewear.com.au

Professional sunscreen for scars

The Cancer Council has introduced an SPF 50 + UVA and UVB broad-spectrum Professional Sunscreen for Scars, said to be an effective sun protection to reduce the risk of skin cancer.

The zinc-rich sunscreen lotion includes ingredients to help hydrate, smooth and soften the appearance of scars. The lotion also includes a natural tint to help conceal scars.

The sunscreen is suitable for users who have had cosmetic corrections, mole removal, those who are concerned about a mole and those who simply want to protect skin from the sun.

Skin Health Pty Ltd

Contact info and more items like this at wf.net.au/W631



GPS technology to protect remote workers

The Journey Management Planner (JMP) from Ezy2C is designed to help companies comply with WHS laws for lone and remote workers.

The JMP software is an additional feature available with Ezy2C's Lone/Remote Worker GPS solution. The software replaces the need for manual journey planning and works even when the vehicle is outside mobile coverage.

Supervisors can electronically plan where a worker is leaving from and where they are travelling to, as well as expected arrival times. If the worker doesn't arrive in the allocated time, the system sends an automated alert to a primary recipient.

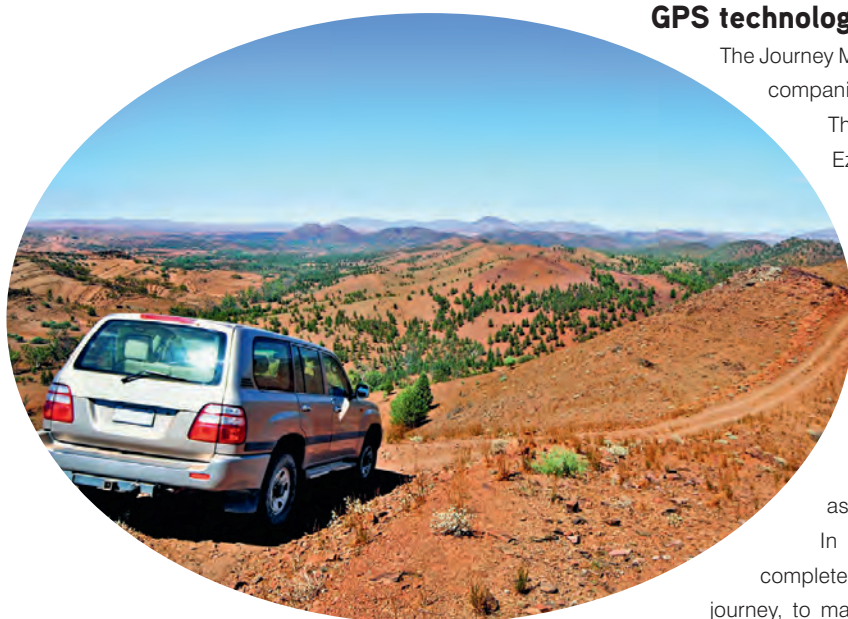
A second alert can be sent to a different recipient if necessary, ensuring that appropriate help is dispatched as quickly as possible.

In phase 2, the JMP solution will also allow drivers to complete an automated safety checklist before departing on their journey, to make sure they are carrying essentials such as adequate petrol, food and water.

The solution is fully automated and provides an audit trail for compliance purposes.

Ezy2c Online GPS Tracking

www.ezy2c.com



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TAKE CARE





Half face respirator

The Sundström SR100 half face respirator is now available in three sizes, making it suitable for most head shapes and facial features.

It is important to select a mask that fits well, for the sake of both protection level and comfort. The human face comes in all shapes and sizes, often governed by gender, ethnicity, body size and other factors such as dentures. This is why Sundström has added an extra-large model to its existing small/medium and medium/large SR100 masks.

All sizes of the SR100 are made of soft silicone, making the respirator suitable for work in hot, wet and dusty environments.

A variety of gas and particle filters can be fitted to the mask.

The extra-large respirator uses the same filters, valves, harness and spare parts as the smaller models. In addition, the same filters can be used with the Sundström SR200 full face mask as well as in Sundström's fan-powered respirators, forming a comprehensive but uncomplicated breathing protection system.

Safety Equipment Australia Pty Ltd

Contact info and more items like this at wf.net.au/W641



Machinery safety training

A collaboration between two international leaders in their respective fields, Pilz and TÜV NORD, Certified Machinery Safety Expert training (CMSE) is claimed to be the first of its kind to be run in Australia. As an internationally recognised machinery safety course CMSE provides an expert level of training and an industry-wide recognised level of competence.

CMSE is targeted at professionals who require a thorough understanding of the safety life cycle and who actively lead, coordinate and review the more complex and demanding activities in machinery safety.

Training is delivered over four days in the form of individual modules containing lectures, discussions, problem solving and practical workshops. The final day is an open book examination conducted by the independent TÜV Nord Group to verify understanding and enable certification.

Four CMSE training courses have been scheduled for 2014 - Brisbane and Auckland in mid-March, followed by Melbourne and Sydney in early May. Places are limited and bookings can be made at www.machinesafe.com.au/courses/certified-machine-safety-expert-cmse?utm_source=SafetySolutions&utm_medium=newsletter&utm_campaign=CMSE.

Pilz Australia Industrial Automation LP

Contact info and more items like this at wf.net.au/W706



Technical safety gloves

Elliotts has introduced an expanded range of G-Flex technical safety gloves that includes five new models that have all been certified by SAI Global to AS/NZS2161.3: 2005 Occupational protective gloves - Protection against mechanical risks. The Dynamax C5 Cut Resistant models include specific gloves suitable for the oil and gas and mining industries.

The G-Flex T-Touch IMPACT incorporates the standard nylon liner and T-Touch coating with the added protection of the heat-bonded K-Guard TPR Exoskeleton Armour for top-of-hand protection.

The G-Flex Dynamax C5 is a comfortable glove that provides the highest possible cut resistance of 5 with a T-Touch coating.

The G-Flex Dynamax C5 IMPACT has the features of the G-Flex Dynamax C5 with the added protection of the heat-bonded K-Guard TPR Exoskeleton Armour for top-of-hand protection.

The G-Flex Roustabout glove has Cut 5 resistance, a nitrile coating for oil and liquid resistance and a T-Touch coating grip.

The G-Flex Roustabout IMPACT has the features of the G-Flex Roustabout with the added protection of the K-Guard TPR Exoskeleton Armour for top-of-hand protection.

Also now certified to AS/NZS 2161.3 is the existing G-Flex range which includes: G-Flex T-Touch, Sandstorm, Red Devil, Nitrile, Foam and Lite models.

Elliott Australia Pty Ltd

Contact info and more items like this at wf.net.au/W707



Flexi Soft: THE MODULAR SAFETY CONTROLLER
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ON THE ROAD:

FIGHTING TRUCK-DRIVER FATIGUE WITH TECHNOLOGY



During the 12 months to the end of June 2013, 231 people died from 192 fatal crashes involving heavy trucks or buses. Already this year, two people were killed and five injured when a fuel tanker crashed in Sydney's northern suburbs and burst into flame.

From safety faults with vehicles to driver fatigue, the reasons for these crashes are varied. But according to the head of Trimble's Transport and Logistics division, Tom Debeule, the unfortunate reality of these accidents is that some could have been avoided by using the right technology.

In February, the new Heavy Vehicle National Law (covering Qld, NSW, Tas, Vic, SA and ACT) was introduced for all heavy vehicles over 4.5 tonnes to operate under one rule book to ensure a consistent safety regime for heavy vehicles on our roads. The law includes instituting new work diary arrangements for managing fatigue.

Telematic devices (or onboard computers that are managed in the back office) enable transport companies to have a better view and a more real-time view of what is actually happening on the roads, not only from an operations point of view but also from a driver alertness and fatigue management point of view.

Debeule says in Europe about 10 years ago there was a big shift in awareness about driver fatigue, mainly from a safety perspective. Many have now moved away from paper log books to tachographs, and there are a number of ideas being discussed in Australia regarding recording of fatigue management hours electronically.

"How we solve some of the issues associated with fatigue management is by providing drivers and the back office with data that is recorded in the truck by the driver or by the truck," says Debeule. "This gives the driver views on fatigue hours and driver safety. We provide the driver with what we call a fatigue management screen, which includes all the rules put forward by the National Heavy Vehicle regulator including standard hours, the basic fatigue management scheme and the advanced fatigue management scheme.


"If we just look at the two standard schemes, our screens basically give the driver the view of how many hours they have left to work on the current scheme they are working in. When they have to rest, they are warned with audiovisual messages on the screen and also by the speaker installed in the truck. This lets the driver

know they are getting close to their mandatory rest time. It creates awareness for the driver but also provides information for the back office, which is also a very important part as it lets them know what the driver is still capable of within the limitation of the law.

Debeule says the information recorded in the system is extremely useful as it can be used to create a certain benchmark for say a typical Sydney-Melbourne trip. He says: "Fatigue is very personal, every person has a different fatigue level and it all depends on the health and wellbeing of the driver - how well they eat and exercise, etc. The telematics system can help detail what is possible for a certain driver profile and fatigue scheme and what are realistic expectations, not only for the transport company but also the customer of the transport company in order to have a profitable transport from A to B within the safety and the limits of the law."

Another part of the system is the actual driver safety, warning the driver based on posted speed limits. If a driver breaches any of the alerts, clear warning messages can be sent to the driver on their pay slip and there will be a cost involved.

According to Debeule, there has been a lot of talk about introducing electronic work diaries but it is just a proposal at this stage. He says electronic work diaries can create a better awareness for both the truck driver and the transport company because both will know this information can be monitored by government, which will create a more direct approach on breaching and could create a safer environment on the road.

The Trimble Car Cube onboard computer is designed to save drivers from time-consuming paperwork and helps them meet road and fatigue management rules and regulations. It also features a navigation system specifically for trucks, which guides the driver to their destination safely and efficiently. It takes into account any restrictions applying to trucks and calculates a route that avoids roads that are unsuitable in terms of permissible weight, axle load, headroom and vehicle width - resulting in fuel savings and reduced repair and maintenance costs. 



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The Honeywell Miller AirCore range of lightweight, full-body harnesses is designed with breathable, open-core padding technology to provide optimal airflow, while reducing heat and moisture entrapment, to keep workers drier and cooler.

Made with patented DuraFlex stretchable webbing, the harnesses also provide good comfort and mobility. Other features include: unique cam buckles on the shoulder straps that enable quick and easy vertical webbing adjustment in any situation; and a new webbing design that creates an original and vibrant style for easy identification and good visibility.

Three versions are available: Construction Harness, Rigger's Harness and Tower Worker Harness. All versions feature lightweight, corrosion-resistant aluminium hardware to help reduce worker fatigue. The Construction Harness version has a frontal D-ring and stand up rear fall arrest D-ring with fall indicator, and it is suitable for construction, maintenance, scaffolding and warehousing applications.

The Rigger's Harness has work positioning side D-rings for pole strap work, confined space webbing loops for attachment to spreader frames, frontal D-ring and stand up rear fall arrest D-ring with fall indicator. It is suitable for use in construction, maintenance, scaffolding, ladder safety systems, confined space rescue and elevated platform applications.

The Tower Worker Harness version has a built-in buttock pad for increased comfort during work positioning, work positioning side D-rings for pole strap work, confined space webbing loops for attachment to spreader frames and stand up rear fall arrest D-ring with fall indicator. This version is available in two designs - one without chest strap and frontal D-ring for positioning and one with chest strap and frontal D-ring for climbing. It is suitable for tower work, ladder work, pole top and line worker applications.

Honeywell Safety Products Australia Pty Ltd

Contact info and more items like this at wf.net.au/W646

Disposable filtering face masks

The FFP3 disposable filtering face mask from CK Safety has been designed to provide protection from construction dust, which has been identified by the Health and Safety Executive as a potential cause of ill health. The dust can include respirable crystalline silica (RCS), which can lead to the development of serious lung diseases such as silicosis and chronic obstructive pulmonary diseases (COPD).

The dust mask is designed to meet the FFP3 standard, meaning that when correctly fitted it can protect workers in dusty areas by filtering at least 99% of airborne particles.

The FFP3 is suitable for use in work environments that could create high dust levels or involve silica or wood dust. Some woods are described as toxic, especially some hard woods, and respiratory protective equipment (RPE) with an APF of 20 is appropriate.

Where necessary, employers should provide appropriate PPE including face masks that are fitted correctly with a filter that has not become clogged with dust.

Spray Nozzle Engineering

Contact info and more items like this at wf.net.au/W398



Applying the brakes to earth leakage on mine sites



Rockwell Automation has collaborated with Australian electrical engineering and manufacturing company Ampcontrol Group to successfully test a solution that detects the impact of earth leakage on mine sites.

Medium-voltage (MV) variable speed drives (VSDs) are now widely used in mining applications. However, due to the high-frequency voltage generated by these drives, they can introduce earth leakage currents at frequencies outside the normal power system frequency which may not be detected by traditional earth leakage protection relays.

Earth leakage - the leakage from an active circuit to ground - can create safety issues. As a result of this, mining regulators in various states of Australia have requested that special attention be given to installations that use VSDs.

AS/NZS 2081:2011 is the relevant standard for electrical protection devices for mines and quarries. This standard specifies the performance requirements for protection devices intended for use with electrical supply networks using earth fault current limitation techniques (IT networks). Earth fault current limiting devices are used to minimise the risk of touch and step potential reaching harmful levels due to an earth fault. Special mention is also made of VSDs in AS/NZS 4871.1:2012 Appendix E.



"The standard is of vital importance to the mining industry, particularly the coal sector. There had been a lot of discussion within the industry about detecting earth leakage with VSDs but a proven and accepted solution had not been established - until now," said Geoff Irvine, mining industry manager at Rockwell Automation.

To ensure that an earth fault can be detected at the input or output of a VSD, a wide bandwidth earth leakage relay is required. When developing the patented VSDguard earth leakage relay to address earth leakage issues faced by the mining industry, Ampcontrol contacted Rockwell Automation to test the product on the PowerFlex 7000 series of medium-voltage VSDs.

Testing of the Ampcontrol VSDguard on a PowerFlex 7000 demo system took place at Rockwell Automation in Canada. The aim of the testing was to determine if earth leakage currents are within acceptable levels under normal operating conditions and if earth leakage currents are detectable under earth fault conditions.

In addition, the testing assessed whether VSDguard is capable of detecting earth leakage currents at all frequencies produced by the VSD and trip under all earth fault conditions. The trial successfully proved the relay does work and can detect earth leakage at different frequencies.

VSDguard works in conjunction with the Powerflex 7000 drive equipped with a direct-to-drive topology. Direct-to-drive topology eliminates common mode filters which removes the possibility of bypassing the neutral earth resistor under earth fault conditions and maintains the integrity of the earth leakage detection circuit.

"It is very promising that we have achieved these results by thoroughly testing the AmpcontrolVSDguard with the PowerFlex 7000," said Stephen Sneddon, product manager of mining systems at Ampcontrol.

"The combination will be beneficial for the mining industry in Australia and New Zealand when complying with the AS/NZS 2081:2011 industry standard and will improve the safety and productivity of a variety of mining applications including ventilation fans, conveyers and pumping applications."

Rockwell Automation Australia

Contact info and more items like this at wf.net.au/W401



Flame-resistant knit fabrics

The Westex TrueComfort fabrics are lightweight, soft and breathable, and are claimed to provide the same guarantee of flame resistance for the life of the garments as Westex's UltraSoft, UltraSoft AC and Indura brands. In addition, the TrueComfort T-Shirt Interlock at 186 gsm provides good arc flash protection with an arc rating of 8.9 (ATPV) for NFPA 70E HRC 2 performance and it is UL certified to NFPA 2112 for flash-fire protection.

Any job functions that require arc flash and/or flash-fire protection and extreme comfort - such as maintenance and electrical work (NFPA 70E); electric and gas utilities personnel; electrical contractors; oil, gas and petrochemical workers; military personnel; and many others - can benefit from the knit fabrics.

The fabrics combined with Westex's existing range of knits are suitable for t-shirts, polo shirts, balaclavas, sweatshirts, hoodies, etc. The entire range incorporates the soft and breathable natural cotton composition ensuring good comfort for all seasons which is combined with multihazard protection and is engineered for permanent flame resistance.

Charles Parsons & Co

Contact info and more items like this at wf.net.au/V917

Decentralised integration of safety switches and sensors

Flexi Loop is designed to meet the demand for a cost-effective way to cascade safety switches and sensors within a machine while also supporting diagnostics.

Flexi Loop makes it possible to cascade up to 32 safety sensors while maintaining the highest level of safety. Regardless of the manufacturer, any combination of safety switches and safety sensors with OSSD outputs can be used. Such a system set-up also ensures the continuous diagnosis of all door switches, emergency stop push-buttons and sensors. Used in connection with Flexi Soft, the entire safety application can be tailored to meet the user's needs - cost effective, personalised and efficient.

Sick Pty Ltd

www.sick.com.au



Personal respirator protection

Personal respiratory protection against small-particle dusts and toxic, odourless fumes, is one of the greatest occupational health and safety challenges facing heavy-industry companies striving to protect the everyday and long-term health of their employees. CleanSpace2 provides a cost-effective solution to this critical OHS issue by combining the ease of use and mobility of a passive respirator with the added protection, reliability and durability of a positive air powered respirator. The device is claimed to be Australia's most compact powered respirator unit (less than 700 g) without the costs associated with purchasing and maintaining PAPRs.

With its award-winning design, the breath-responsive CleanSpace2 minimises heat stress and mask fatigue for employees, giving them a good level of comfort and confidence while improving workplace safety, productivity and reducing total cost of ownership.

PAFtec Australia Pty Ltd

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Portable appliance testers

The lightweight and rugged Fluke 6200-2 and 6500-2 portable appliance testers perform all the tests required for Class I and Class II appliances and conform to the EN61010-1 safety standard. Fluke says its 6500-2 portable appliance tester can reduce total test time by nearly 50% through the use of professional mode, dedicated keys for one-touch testing, auto-test capabilities and fast storage and transfer of test results through the new USB data ports.

The 6200-2 and 6500-2 devices feature one-touch testing with dedicated keys for each test and preset pass/fail levels to speed testing. The large display makes it easy to view test results and a separate IEC socket provides easy mains/extension lead testing. Users can also store and re-use common test sequences for consistent retesting of appliances.

The 6500-2 also features an integrated Qwerty keyboard for rapid data entry, backlit display, memory for back-up storage and an additional USB port for data transfers to PCs. It also offers new test capabilities including: 250 V insulation; RCD-protected appliances; optional 110 V test functionality for verifying appliances at building sites.

Fluke Australia Pty Ltd

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A PROBLEM SHARED?

WHS OBLIGATIONS OF PPE AND TRAINING PROVIDERS

Angus Macinnis*, StevensVuaran Lawyers

Finding the right providers of PPE and safety training can be a daunting task. Budgets are never unlimited, and although “making that safe would have cost too much” is never a good answer to a failure to manage a safety risk, the pressure is always on to find the most cost-effective and efficient solution in a crowded market.

One useful way of distinguishing between PPE and training providers is to ask them how well they understand their “horizontal consultation” obligations. Do they understand that the provision of PPE or training to you means that they have duties towards your workers? If the answer is “yes”, your question then becomes, “If I engage you, how are we going to consult, and how will engaging you help me manage my consultation obligations with others?”

Asking these questions at an early stage not only allows you to gauge whether the provider is a good one to use, but is also essential to your organisation’s ability to discharge its own horizontal consultation obligations. Although horizontal consultation is only an explicit requirement in those states which have adopted the model WHS legislation, the importance of consultation as an essential step in ensuring safety compliance has been recognised for much longer than model legislation has been in force.

This article will discuss the horizontal consultation obligations under the model WHS legislation and identify some of the questions you should be asking your suppliers. Once you’ve got some answers, you need to turn them into an agreement, which means looking at how to make your contracts reflect the matters you’ve discussed.

Unlocking the interlocking consultation duties

Section 46 of the Model laws provides that: “if more than one person is on duty in relation to the same matter under this Act, each

person with the duty must, so far as is reasonably practicable, consult, cooperate and coordinate activities with all other persons who have a duty in relation to the same matter”.

This means that the first step is to identify who the “all other persons” are, starting with the “primary duty” and working out from there.

The first aspect of the primary duty under the model Act is the duty of PCBU to the workers who are engaged by the PCBU. The second aspect of the primary duty, as set out in section 19(2) of the Act, is the duty to ensure, so far as is reasonably practicable, that the health and safety of “other persons” is not put at risk from work carried out as part of the conduct of the business or undertaking. So, let’s say you engage The Reliable Safety Training Co (which we’ll call “Reliable”), whose business or undertaking is the provision of safety training. Reliable has a section 19(2) duty to ensure the health and safety of “other persons” affected by the work it carries out - which means your workers when it is training them. You have a duty to your workers and Reliable has a duty to your workers, so that means you need to consult. Equally, PPE suppliers have a duty under section 19(2) to the “other persons” who are the users of the PPE which is supplied.

In relation to PPE, Division 5 of the model Regulation, which applies in circumstances where PPE is being used, provides a very useful way of challenging PPE providers to test how well they know the obligations, and how their products will assist you to meet your obligations.



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For example, how is the supplier going to help you to meet your obligation to ensure that PPE is maintained, repaired or replaced so that it continues to minimise the risk to the worker who uses it as required by Regulation 44? Has the supplier given you what you need to comply with your obligations to provide information to workers under Regulation 44(4) or have they left you to work it out for yourself? What information does the supplier make available to workers to assist them to comply with their obligations under regulation 46? Suppliers who have good answers to these questions will demonstrate that they understand their consultation obligations, which means they are much more likely to be able to engage constructively with you, and to help you meet your obligations.

When it comes to training providers, the Regulations are not as prescriptive as they are in relation to PPE. This means that it may be the terms of the contract with the training provider which are the more useful yardstick against which to test the training provider.

Agreeing on agreements

Did your eyes just glaze over when I mentioned “terms of the contract”? Too frequently, “terms of the contract” is used as shorthand for “20 pages of small type, nine pages of which are definitions”. Contracts can, however, serve two useful purposes in a safety context - they ensure that the safety obligations of the parties are considered and understood at the start of the relationship, and they record the agreement reached as a source of rights during the contractual relationship.

There can sometimes be a tension between contractual thinking (which is a process of risk allocation) and safety thinking (which is a process of risk elimination or minimisation). This tension is seen most acutely in exclusion clauses and indemnity provisions. A training provider may want an exclusion clause which says that they will not be liable in the event that they breach their contract

with you, and conversely, you may want an indemnity which says that in the event of a breach by a training provider, you can recover all damages which flow (including, for example, the costs of compensating a worker engaged by you but injured by the negligence of the training provider).


However, if all you are doing is moving the risk, you are not taking steps to manage it, and you are not using the contract as a tool to help you manage either your consultation obligations or your broader safety obligations. If an incident occurs and an inspector comes to call, they will not be greatly impressed by your indemnity. Instead, the inspector will show you section 14 of the Model Act, which says that duties cannot be transferred, and perhaps also section 272 of the Model Act which says that you cannot contract out of the Act, and then ask you what you were actually doing to comply with your consultation obligations.

So what should you be doing?

If safety is as important to you as the other elements of the contract (price, time for delivery, compliance with any relevant Australian Standard, supply of instructions for use) and so on, then it should be referred to in the contract, just like those other elements. If a supplier offers you up a set of standard terms that don't contain an express reference to safety obligations, ask the supplier why safety isn't dealt with (or get in first with your own standard terms).

This should not be a combative exercise, or an exercise which generates pages and pages of dense type. Rather, it should be a process of recording how both you and the supplier are going to discharge obligations which apply to both of you.

Conclusion

It is sometimes said that a problem shared is a problem halved - however, when it comes to safety, a problem shared can become a problem doubled if each party thinks the problem is the responsibility of someone else. The consultation obligations in the Model legislation mean that nothing is ever “someone else's problem” - instead, each problem is a problem to be approached jointly. By taking a joint approach to identifying the obligations of each party at the outset, reaching agreement as to how those obligations will be met, and recording that agreement in clear and simple language is the best way of ensuring that shared problems get smaller, not larger when it comes to problems shared with suppliers of PPE and safety training. 



**Angus Macinnis is an employment and safety specialist at StevensVuaran Lawyers, an Australian boutique commercial law firm. Angus has a particular interest in the corporate governance aspects of safety law, and provides assistance to companies, and their directors, who want to manage safety compliance as an integral part of their overall corporate compliance strategy. He provides advice and training and also assists in the resolution of disputes and in dealings with regulators. He can be contacted at angus@stevensvuaranlawyers.com.*

Driver safety in the construction industry

Queensland-based civil construction company Q H & M Birt has more than 30 years' experience working on a diverse variety of projects, the majority in the resources sector. The company provides its services to customers in the Northern Territory, Queensland and Western Australia. With expertise in the construction of dams, roads, bulk earthworks, overburden stripping and drainage works, Q H & M Birt employs a highly skilled workforce capable of managing and executing large-scale projects safely, on time, within budget and to the satisfaction of its clients.

Given the breadth and scale of work the company undertakes, it is committed to ensuring that on-site health and safety remains a top priority. The company has a strong and consistent commitment to safety, quality work and the environment, which is something its managing director, Quentin Birt, is extremely proud of.

Q H & M Birt was contracted to work on the Queensland Curtis LNG Project (QCLNG). The project involved construction of several major gas facilities and the transportation of large heavy machinery, equipment and materials along major roads to and from the site.

Vehicle safety and driver awareness were key considerations for the client on this job and formed a major part of the contract and the occupation health and safety (OHS) reporting process.

For the client it was essential that wherever possible QCLNG traffic on major roads was kept to an absolute minimum, aiming to avoid schools, identified school bus routes and pedestrian centres.

From a monthly reporting process it was also important that vehicle movement and impact was monitored on designated roads, with the frequency, route, type of journey, driving style, journey time and speed recorded.



To achieve this Q H & M Birt needed to find a solution to help ensure vehicle safety and driver awareness remained high and important information on vehicle movement was captured and distributed.

Q H & M Birt needed a robust solution which would comply with the client's contractual requirements, stipulating all contractors must fit their vehicles with an in-vehicle monitoring system (IVMS).

Q H & M Birt called on business partner Future Fleet to help it identify a robust telematics solution to meet the contractual and client requirements.

Future Fleet recommended the MiX Telematics IVMS, which resulted in 23 of these systems being installed into Q H & M Birt vehicles operating on the QCLNG Project.

The MiX Telematics IVMS has enabled the company to produce monthly reports for its client, charting vehicle movements in assessment areas such as speed, journey time, route and frequency.

The IVMS also features an innovative emergency beacon warning system, which facilitates a quick response in the event of an accident or medical emergency.

"In addition to making our business compliant with the QCLNG Project, we have also noticed an overall improvement in driver behaviour after the installation of IVMS system," Ross Allen, the company's construction manager, said.

"Being able to provide our drivers with regular updates on their driving performance has greatly enhanced the safety on this project and actually helped us reduce some operating costs including fuel consumption. This is simply because our drivers are driving more efficiently.

"Following the success of the IVMS on this project, we are now considering rolling this solution out across more of our fleet. In particular, we would look at extending the event alert system, which is a really important feature for staff working in regional and remote areas."

MiX Telematics

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Interface for safe networking

The Flexi Line interface networks modular machines and provides the flexibility demanded by modern machine concepts. By networking up to 32 Flexi Soft stations, it is possible to map modular machine structures in a consistent and efficient way - even at a distance of up to 1000 m between two Flexi Soft stations.

Configuration is quick and easy: the process image - with a data width of up to 96 bit - needs to be defined only once for the entire system. Information is either shared with neighbouring stations only or transmitted to the entire system. This division makes communication more efficient and shortens response times. Another important advantage is that

the communication works without addressing using 'neighbourhood detection'.

Sick Pty Ltd

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Safety controller

The Banner Engineering SC26-2 Programmable Safety Controller is used for PLC-level capability and control without the programming complexity and steep learning curve of traditional PLCs. Designed to be more flexible and easier to use than other small footprint safety controllers, the device uses safety function blocks, Boolean logic functions and a user-friendly programming environment for creating safety control logic.

With 26 input terminals and two redundant solid-state safety outputs, safety system design engineers are able to easily monitor a variety of input devices, such as e-stop buttons, rope pulls, interlock switches, safety light curtains and other safety and non-safety input devices. The controller's free PC graphical user interface configuration software features preconfigured safety function blocks, including two-hand control, muting and enabling device to simplify application programming. It also includes a ladder-logic diagram and a text-based summary of all of the input device and controller output settings.

The safety controller has eight input terminals that can be configured to monitor input device signals, source 24 VDC or serve as IO status outputs.

The optional LCD displays IO status and actionable diagnostics such as input fault information and device wiring details. This assists users during commissioning and enables faster troubleshooting to minimise machine downtime.

Ethernet models are also available and have an embedded ethernet node that provides up to 64 virtual status outputs. The ethernet IO registers automatically populate based on the configuration and can also be pared down or customised depending on application requirements. For larger scale applications, Banner will have expandable models in the future, which will allow users to add up to eight additional IO modules.

Micromax Pty Ltd

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Field-based worker app and workflow management solution

Fieldteam is an Australian owned and designed app and cloud-based workflow management solution which is suitable for businesses managing mobile teams of workers in the field. Designed to allow businesses to improve job management and job scheduling with its field-based workers, the solution removes the need for paperwork and double handling which enables workers to handle more jobs in less time. Workers can send quotes and invoices to customers directly from the field, which reduces time spent on administration tasks.



The system is designed to improve all areas of current business practices including the safety of the customers, workers and the entire business. Using the app, workers can take a photo, video or audio report of any situation that he/she feels is unsafe or that needs further clarification to complete the job while in the field. This information can then be sent directly to the safety supervisor or manager for review and immediate clarification. A decision or clarification can then be communicated back to the worker without the supervisor having to visit the site.

Data and media recorded on the app are time and date stamped. The data is stored with GPS locations against each job to ensure work and all safety measures are carried out in a professional and safe manner. OHS forms, safety forms, SWMS, JSAs and other checklists can be integrated into the system to provide easy access and ensure the worker completes all tasks necessary to meet safety and legal requirements. Custom-designed work safety forms can also be integrated into the system.

Fieldteam

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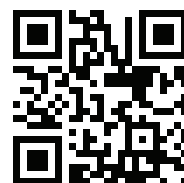


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Sounding out safety

Noise or an unwanted sound is a hazard that must be managed in the workplace. Exposing the unprotected sense of hearing to hazardous noise can result in temporary or permanent loss of hearing. Hearing injuries can also include the disabling condition of tinnitus, which is sometimes referred to as ringing in the ears or head.

Hearing damage can range from moderate to acute (partial to total loss of hearing) and once lost is non-repairable. It can leave sufferers feeling isolated, highly compromised during conversations and disadvantaged in the workplace.

Reducing hearing injuries in the workplace often requires professional advice and guidance and should be obtained from well-informed sources. Conversing with workplace health and safety bodies, and safety consultants if needed, is also recommended to ensure all obligations are being met.

Firstly, the risk must be eliminated so far as is reasonably practicable, and if that is not possible, the risks must be minimised so far as is reasonably practicable. Identifying the hazard and risks, and assessing solutions centred on making the environment safe should be the primary goals. This aim may involve a number of actions such as engineering controls, isolation of machinery/equipment, and insulation to name a few. Ultimately, a combination of actions may be required to remove, reduce or control noise levels and personal exposure. These measures may take time and necessitate the need for hearing protection PPE to complement a successful hearing conservation program.

Correct selection of PPE is critical and requires careful evaluation. Australian and New Zealand Standards can provide an important reference point for valuable information. Products should be certified and clearly highlighted by the certifying body's trademark on both the packaging and product. It is important to realise that compliance, or whether the product conforms, does not necessarily equate to certification. For the uninitiated, PPE selection should be provided by a professional source, such as a hygienist, safety officer or a reputable supplier/retailer trained and capable of imparting guidance during this process.

The performance rating of hearing PPE must provide the correct reduction in noise levels and must not adversely affect communication or the ability to hear wanted noise.

While correct product performance, application, maintenance and storage are essential, fit/comfort is paramount. This is extremely important when considering hearing protection devices. Educating users in correct fit, maintenance and storage is vital as it impacts on comfort, performance and working life.

It is crucial that users wear their hearing protector 100% of the time while exposed to loud unwanted sound. Therefore, implementing a safety culture in the workplace is an ongoing process that involves planning, consultation and constant review. It must be supported by all and have total management commitment.

Education, training and consultation are essential to ensure the PPE provided is accepted, used correctly, maintained and regularly inspected. This is very important to ensure product is maintained in good order and will perform as it is intended. It should also prevent any unauthorised changes and product abuse. Wearer rejection is generally the result of poor PPE introduction, and uncomfortable or incompatible task-hindering products.

To aid in the success of any safety program, PPE must be comfortable, compatible and provide the level of protection needed.



Peter Logan is Asia Pacific General Manager for Scott Safety and is based in Sydney Australia. Peter has worked in the safety industry for 30 years in the product development, manufacturing and distribution of safety equipment to industry, emergency services and military throughout the Asia Pacific region.

Scott Safety
www.scottsafety.com

NEW PRODUCTS



Safety switch

The Schmersal AZ300 mechatronic safety switch features an RFID-based electronic safety sensor and an IP69K rating.

With its distinctive external Maltese-cross-shaped cam design, the device can accept the actuator from any of three sides, providing mounting flexibility for either left or right-hinged doors, or sliding guards. It also has integrated a radio frequency identification (RFID) sensor to detect the actuator and indicate a closed guard. This non-contact operating principle limits wear on components, tolerates misalignment and provides the option of individual coding: The basic version of the sensor responds to any AZ300 target actuator; the 'I1' version only accepts the coded ID number of the specific target actuator which is taught-in during the first start-up; the 'I2' version allows the teach-in process to be repeated, allowing replacement of a lost or damaged actuator.

The device features all of the diagnostic advantages of the company's Pulse Echo sensors. With continuous internal function tests and monitoring of the safety outputs, the device can be wired in series without detriment to the safety levels. Diagnostic LEDs on the sensor indicate various errors, misalignment and door open/closed signalling. For more advanced indication, the switch is also available with serial diagnostics.

The device has adjustable latching which provides a holding force of 25 or 50 N. The AZ300 actuator includes a dampener pad so that the switch can be used as a door stop for small to medium-sized guard doors. Lockout/tag out can be achieved by placing padlocks through the key of the actuator, preventing the guard closing.

The device meets the requirements of Cat 4, Performance Level e or Safety Integrity Level 3 and, because of its protection class IP69K, it is also suitable for use in hygiene-sensitive areas.

Control Logic Pty Ltd

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Compact safety light curtains

The compact Schmersal SLC440COM series safety light curtains and SLG440COM series safety light grids incorporate highly visible status signalling in a rugged housing.

The profile length corresponds to the protective field height to allow for optimal installation with the application.

Operating status can be seen from a distance. The end cap of the receiver unit is moulded from a semitransparent plastic that is illuminated by LED, showing green for proper operation and red when the protected field has been interrupted, or flashing red to indicate fault conditions.

Like Schmersal's other Type 4 safety light curtains, the SLC440COM series features a one-piece extruded, reinforced housing in a compact 28 x 33 mm rectangular profile. This housing profile is claimed to be less susceptible to mechanical damage and misalignment from torsion or bending. The safety light curtains are used for the protection of hazardous areas and are available with resolutions of 14, 30 or 35 mm and protection field heights between 330 and 1770 mm; also available as safety light grids (SLG440COM) with 2, 3 or 4 beams for perimeter guarding. Both series are suitable for use in safety circuits up to PLe (EN 13849) or SIL3 (IEC 61508).

Control Logic Pty Ltd

Contact info and more items like this at wf.net.au/W399



Compression workwear

The KingGee G2 Compression Workwear is designed for Australian conditions to reduce muscle fatigue and encourage greater productivity on the job.

Based on an independent study conducted by the University of Technology, Sydney where

participants wore KingGee G2 Compression Workwear during and up to 24 hours after physical activity, the workwear not only reduced muscular soreness, anger and fatigue ratings in participants immediately and 24 hours after a work shift, but also increased the participants' energy for work the following day. The results also found KingGee G2 Compression garments promoted an improved recovery timeframe for muscle fatigue in participants.

The range also uses fabric technology developed for NASA which regulates the wearer's temperature. The Thermo-Active fabric made by Outlast is claimed to proactively manage body temperature, which can keep the wearer cool in warmer weather and warm in cooler weather. The fabric is also claimed to eliminate chaffing and reduce body odour, and is antistatic. Available in long and short top and bottom options, other design characteristics of the range include ventilated mesh panels, and contoured seams and panels that support deltoid, triceps, lats, pectoral, quadriceps, and hamstring muscles.



KingGee

Contact info and more items like this at wf.net.au/W598



MOBILE INSPECTIONS IN THE WORKPLACE

Josh Ladgrove

The mobile electronic inspection landscape has been traditionally dominated by PDA's running Windows Mobile software. The need for ruggedised, reliable hardware coupled with a stable, secure, proven and well-supported software platform ensured this dominance in the past decade.

However, the meteoric uptake and current dominance of smartphones and tablets (largely powered by iOS and Android software platforms) in the consumer market has also led to a gradual acceptance of these devices in the enterprise arena, with more and more corporations employing a bring-your-own-device (BYOD) policy.

Where the enterprise arena was once dominated by RIM's Blackberry for personal calls and email usage and Windows Mobile enabled devices for more commercial applications, both of these functions have now been integrated into smartphones such as the iPhone and Samsung Galaxy 3 and tablets such as the iPad and the Samsung Galaxy Tab powered by Google's Android operating system.

Initial uptake of these devices has not been without resistance, with unique security, platform consistency and compatibility issues hampering full corporate integration. However, with many of these challenges now overcome and the stability of both major mobile platforms no longer in question, the stage is now set for a meaningful transition of tablets and smartphones in the commercial space.

According to Gartner, as of February 2013, Android-powered devices now account for over 75% of global market share, with a corporate uptake of 41% in North America and 32% in the Asian region. Initial doubts over reliability and robustness of the Android operating system have now been replaced with widespread enthusiasm over the availability of a wide range of software, with an equally wide range of hardware options covering the entire price spectrum.

The commercial arena is now starting to benefit from Android enabled smartphones and tablets which offer PDA-like functionality, often at a fraction of the cost. For example, the average size

of a PDA screen is 3.5 inches whereas many smartphones now sport a 5-inch screen and the average tablet screen size is now at 10 inches. This increased screen real-estate increases efficiency while performing mobile inspections, as well as markedly enhancing the end-user experience.

Tablets and smartphones are also able to capture high-resolution images which can then be annotated using the touch screen, as well as using the in-built camera for barcode scanning. With optional hardware attachments now available to facilitate the use of RFID scanners, the need for a dedicated PDA unit to complete inspections in the field is becoming increasingly marginalised, specific only to those industries that require either: dustproof, corrosion-proof, explosive-proof or waterproof hardware devices.

The benefits of using an Android-powered tablet or smartphone in a commercial environment for mobile electronic inspections have led many companies to develop mobility inspection software on the Android platform in order to pass these numerous benefits on to their customers.

Demand for Android tablets in the commercial space is growing rapidly as these well-priced tablets and smartphones provide an integrated workplace experience. With the ability to use an Android device to complete inspections, raise defects, record recommendations and corrective actions, capture and annotate images in the field, wirelessly synchronise data between an SQL database and the ability to work offline and synchronise when connectivity is re-established, more and more customers are making the switch to Android devices for their mobile electronic inspections.

Example: create a checklist from your Australian Standard

Can mobile devices replace paper forms when conducting an inspection in the field while following an Australian Standard? Absolutely, if the technician has to follow steps that are listed in

an Australian Standard, a mobile application can present the tasks/steps as an electronic checklist on the mobile device.

The application can also operate the built-in camera to take a picture of the finding, allowing annotation of the picture taken and, in most mobile devices, convert speech to text for reporting. Furthermore, barcodes, GPS, time stamp, RFID and scanners built in the mobile devices enable efficient and quick identification of areas and equipment, identify points of entry and exit, improve efficiency, and minimise human errors.

Take, for example, the Australian Standard AS 1735 for lifts, escalators and moving walks. If the user is required to fill out an annual service report for the lift, the mobile device should fulfil the same function - the user can select from the list of possible choices in the standard. Mobile devices make current and past information accessible and easy to use - for example, tracking down the last time the oil buffers were tested and the speeds and loads results recorded, as well as the benchmarks listed in the standards.

Functionality


Mobile device applications specifically designed for lift services should deliver the following functionalities:

- List all information required by the Australian Standard AS 1735 to perform the periodic inspection, adjustment and testing of existing equipment, such as safety gear, ropes, rails, governor and oil buffer, including questionnaires, possible results/outcomes, acceptable threshold values (for collecting field data), etc;

- Provide easy-to-use navigation capabilities and quick access to information;
- Allow service personnel to enter as much information as needed;
- Automatically data transfer from the mobile device to the relevant stakeholders without the need for further data entry or 'manual' data reformulation;
- Automatic use of camera; and
- Ability to convert speech to text.

Conclusion

Benefits of using mobile application for automating lift servicing as per Australian Standard AS 1735:

- Improve efficiencies: minimising unnecessary administrative tasks and data entry;
- Increase productivity and profitability: enabling effective completion of tasks; simplifying repeatable tasks; and providing staff with easy-to-use tools that focus on performing tasks;
- Incorporate mechanisms to focus on exceptions and ensure proper execution of tasks including: automatic listing of activities, reminders, alerts, escalation procedures, and easy access to information; and
- Improve controls and accountability. 

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NEW PRODUCTS



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The Scott Safety Meridian universal fixed gas detection transmitter system supports a full range of toxic and combustible gas sensors, including Scott Safety standard and Rock Solid electrochemical, catalytic bead, infrared and metal-oxide semiconductor sensors.

A single unit can support up to three sensors per transmitter, detecting more than 50 toxic and combustible gases, with each sensor offering its own 4-20 mA output.

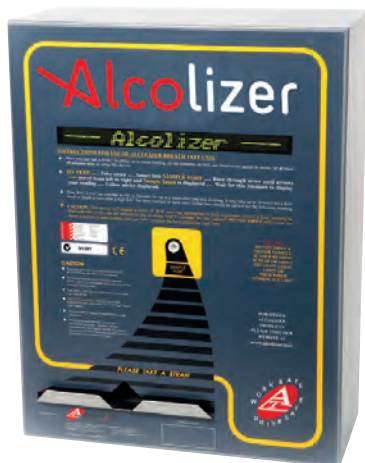
The detector's intrinsically safe, plug-and-play design allows 'hot-swap' sensor replacements without the need to power down the detector or declassify a work area during sensor replacement. This simplifies maintenance and allows sites to maintain production uptime while providing a safe working environment.

The system features a modular design with universal accessories that streamline installation and maintenance tasks as well as 'futureproofing' the detector by allowing all future sensor technologies from Scott Safety to integrate into the system. The modular design also provides the flexibility to support industry-standard communication protocols and incorporate new communication protocols as they emerge.

The unit has global regulatory approvals and SIL 2 certification from TUV-Rheinland.

Scott Safety

Contact info and more items like this at wf.net.au/W726



Wall-mounted alcohol tester

The Alcolizer Wall Mount is available for rent from TechRentals.

The Alcolizer Wall Mount is an Australian Standards Certified (AS 3547 Type III) wall-mount unit that provides accurate blood alcohol content readings. The unit recalibrates itself every 24 h using its own internal NATA Certified gas, providing reliable and accurate readings. Data can be logged if necessary.

Features include: three programmable BAC set point alarm levels; low-cost maintenance and consumables (standard drinking straws); programmable scrolling LED display; and high-grade platinum fuel cell technology (police standard).

TechRentals

Contact info and more items like this at wf.net.au/W445

Sundström SR100

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Earth ground testers

The Fluke 1623-2 and 1625-2 Earth Ground Testers have advanced features and accessories that speed verification of a reliable connection to earth for grounded electrical systems. The devices can help solve power-quality problems and lower the risk of shock to users. The new accessory reels are claimed to be able to save up to 50% cent of set-up and tear-down time compared to existing wire reels. The device is designed to help engineers and electricians meet electrical codes, engineering standards and local regulations to ensure that in

the event of a lightning strike or utility overvoltage current will find a safe path to earth. The devices perform all four types of earth ground measurements: 3- and 4-pole fall of potential; 4-pole soil resistivity; selective testing; and stakeless testing. The testers feature USB connectivity for easy storage of up to 1500 records with time stamp and fast downloading of measurements eliminating the need for manual data transfer. The large display makes it easy to read measurements in any environment. Accessories include heavy-duty stakes that can be hammered into hard ground, colour-coded wires to reduce errors and a rugged carrying case. The 1625-2 model has advanced features including: automatic frequency control (AFC), which identifies existing interference and chooses a measurement frequency to provide more accurate values; R* measurement, which calculates earth ground impedance with 55 Hz to more accurately reflect the resistance that a fault-to-earth ground would experience; adjustable limits for quicker testing; and battery-level status on the display. The 1623-2 and 1625-2 may be purchased as stand-alone testers or in kits that include test leads, clamps, batteries, EG stakes, cable reels and carrying case. Optional accessories include a 320 mm split core transformer for performing selective testing on individual tower legs.

Fluke Australia Pty Ltd
www.fluke.com.au



Hard hat neck flaps

The On Site Safety high-visibility neck flap provides the wearer with good sun protection. Easily attached to any hard hat with the elastic trimming, the neck flap is made from a mesh fabric which allows heat to escape through its apertures.

Available in both high-visibility orange and yellow, the neck flap can be screen printed with company logo.

The neck flap is also available in white, which uses the helmet eyelets to connect the neck flap.

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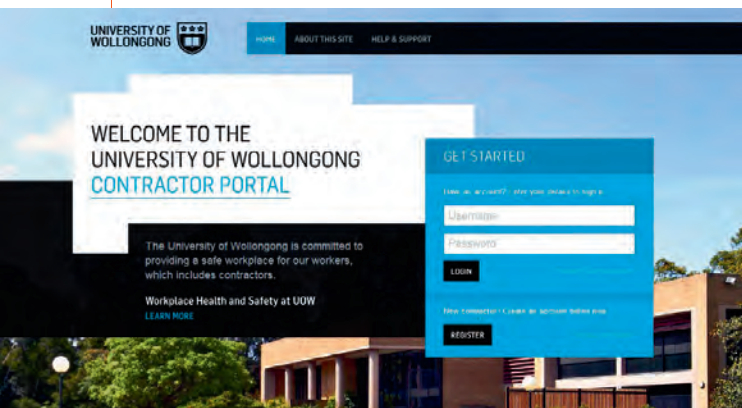


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Taking the hassle out of contractor management and training



Managing contractors can be challenging: making sure their insurances up to date; making sure they have been properly inducted; and managing who's on site each day. This is even more challenging with a decentralised workforce split across multiple locations. Coordinating administration across multiple sites turns the hassle of contractor management into a full-blown headache.

Sound familiar? This was the situation the University of Wollongong (UOW) was facing when it decided to look for a contractor management solution. The solution needed to centralise its contractor work health and safety information and provide an automated way to monitor contractor insurances and licences over its nine different campus locations. All contractors also required consistent induction training that complied with the *Work Health and Safety Act 2011 (NSW)* and self-insurance requirements.

The contractor management solution needed to:

- have strength in both contractor compliance and online training;
- provide daily support for use of the system to both UOW employees and contractors;
- offer a UOW branded portal;
- be a cost-effective solution (for both set-up fees and annual fees); and
- allow system configuration based on UOW needs.

e3Learning's contractor management solution, SitePass, was found to meet all of UOW's criteria and it was selected to implement the online contractor management solution at the UOW.

e3Learning specialises in compliance and custom online training development and was able to create two custom-developed contractor induction online training courses for UOW to use as part of the holistic solution.

The relationship between e3Learning and UOW has been beneficial for both parties. UOW has been instrumental in providing feedback to assist with the product development of SitePass. e3Learning was able to advise UOW on how to get the most out of its training, based on its 13+ years' experience in online training.

E3 Learning Solutions

Contact info and more items like this at wf.net.au/W632

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Welding and grinding helmet

The Cigweld ProLite welding and grinding helmet has four highly sensitive sensors that can take readings and make adjustments to the variable lens in less than 1/20,000th of a second. Even at very low amperages, the helmet can determine how much light needs to be let in, which makes it suitable for low-current AC and DC TIG work as well as more powerful stick and MIG jobs.

The helmet uses replaceable CR2450 lithium batteries and also features a solar panel which prolongs the battery life.

With a simple click of a button, the helmet can be switched between welding and grinding modes. There is also an optional magnification lens, which slots in easily for the more fiddly jobs.

The high-impact-rated helmet provides a generous viewing area of 98 x 55 mm and the ProLite range is fully compliant with Australian Standards AS/NZS1337.1 and AS/NZS1338.1.

Suitable for a range of welding applications in Australia, from heavy industry to agriculture, mining to car panelling, the helmet can also be used for amateur hobby work.

Cigweld Pty Ltd


Contact info and more items like this at wf.net.au/W680

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ENSURING SAFETY THROUGH PROFESSIONAL RECOGNITION

Joseph Keller- Communications Manager, FPA Australia



FPA Australia has developed the Fire Protection Accreditation Scheme (FPAS) to validate the competency of individuals conducting 'inspect and test' work activities on fire protection systems and equipment in Australia.

Despite the potentially deadly consequences of incorrect maintenance practices on lifesaving fire protection systems and equipment, in most states and territories there are no minimum training or experience requirements for those individuals tasked with inspecting and testing this equipment.

This is not in keeping with the expectations of building occupiers, owners, facility managers and the community around Australia, and this situation led FPA Australia to develop the Fire Protection Accreditation Scheme (FPAS).

The scheme is the only nationally harmonised accreditation system designed to recognise the skills and competencies of technicians in the fire protection industry across all state and territory jurisdictions in Australia. FPAS also promotes and highlights businesses engaging accredited individuals through 'business recognition' provisions.

FPAS, which was officially launched on 1 July 2013, accredits individuals conducting 'inspect and test' work activities based on qualifications recognised by the Australian Qualifications Framework (AQF).

These activities are set out in Australian Standard 1851 - 2012 Routine Servicing of fire protection systems and equipment. FPA Australia was heavily involved in the development of AS 1851-2012 and is active in lobbying all state regulators to adopt this improved and updated standard. The association also provides a suite of record-keeping logbooks for both AS 1851-2012 and the older 2005 edition.

Despite the dangers of poorly maintained fire protection equipment, failure to reach compliance continues. Field-data management

company Verified has identified that, of 40,000 buildings surveyed, less than 40% achieved compliance to AS 1851.*

This non-compliance related to frequency of maintenance and defects in essential fire safety measures including fire sprinklers, alarm systems, portable fire extinguishers and fire hydrants. FPA Australia CEO Mr Scott Williams said he believed fire protection accreditation was a vital safety issue.

"Most people would be horrified to learn that many critical infrastructure buildings like hospitals, residential apartments, schools and nursing homes have fire safety systems that are not being tested or maintained correctly, but this is what the evidence shows," he said.

"Until now there has been a very limited framework to validate the competency of individuals working on these systems. As highlighted by the data, this poses a significant risk to community safety and could lead to fire protection measures failing to operate correctly when they are needed most."

As of April 2014, 380 technicians are accredited under the scheme around Australia with another 100 currently being processed. The association hopes to have up to 1000 technicians accredited under the scheme by the end of the year.

FPAS has received strong industry backing with Chubb Fire, one of Australia's leading services businesses, committing to ensuring all of its technicians gain accreditation. Many other highly professional businesses around Australia have also committed to accrediting their technicians and gaining business recognition.

In addition, many regulators are working to incorporate the scheme into regulatory frameworks or tendering processes.



FPAS, WHICH WAS OFFICIALLY LAUNCHED ON 1 JULY 2013, ACCREDITS INDIVIDUALS CONDUCTING 'INSPECT AND TEST' WORK ACTIVITIES BASED ON QUALIFICATIONS RECOGNISED BY THE AUSTRALIAN QUALIFICATIONS FRAMEWORK (AQF).

The Department of Human Services in Victoria, for example, now preferences fire contractors who hold accreditation, such as FPAS, over those who do not. Additionally, future extensions of contracts with DHS will not occur unless contractors are accredited.


Williams said the accreditation requirements were rigorous but fair.

"To gain Qualified Status under the scheme, individual technicians must demonstrate they have achieved competency in every area for which they undertake work; a major shift for the industry."

FPA Australia is now encouraging all customers who require inspection and testing of fire protection measures to ensure they engage technicians who are FPAS accredited. Williams said all FPAS accredited technicians will hold at least one accreditation

card and these should be cited by building managers, owners and occupiers before any fire protection work is undertaken.

"If an FPAS accredited technician is not yet available in a local area, then customers should make sure their technician is from an FPA Australia code-of-practice compliant member company.

"Ensuring only trained, competent technicians are engaged to maintain essential fire protection systems and equipment in Australia will go a long way to professionalising the industry and securing the highest standard of community fire safety." 

**Data identified by Verified 2004-2010 and relates to compliance with AS 1851-2005.*

Fire Protection Accreditation Scheme (FPAS) www.fpa.com.au/fpas

CASE STUDY

Automated packaging line improves efficiency

AMBOS Stockfeeds recently installed an automatic animal feed packaging system as part of a major upgrade to its facilities in Young, New South Wales.

To raise the efficiency of its product handling from the laborious manual system, the company purchased an automated grain and feed packaging line from Kockums Bulk Systems (KBS).

Safety is a prime consideration for AMBOS and this is achieved through standard operating procedures and training. Alan Threlfall, son of the founder of the company, said: "As we have moved towards high levels of automation, we have seen that all new equipment is designed with safety in mind and arranged so hazards are engineered out of the equation."



Threlfall explains the company has a good 'family type' of culture, so that all staff are safety conscious. Because AMBOS holds to high quality and operational standards, it sought automated sack filling equipment from a company that had: proven products meeting Australian Standards; staff with good product knowledge and experience; and a 'switched-on' installation and service team. The company studied the market for available equipment, being prepared to pay that little extra for quality in keeping with their own standards and to maintain the trust of their client base.

AMBOS was attracted to KBS because of confidence in its quality products and reputation for successful installations and ongoing support. The company installed equipment including a Payper open-mouth bagger that picks bags from a conveyor and offers them to the filling spout. When filled they move forward to the sewing head, then to the TMG automatic palletiser. From there they move forward as a pallet load to the Unitech automatic wrapper. Throughput is 700 to 900 sacks/h. The equipment is expected to perform 24/7 and be continually available for many years of service. As a result of the higher rate of handling and the efficiency gained by the equipment, the company is considering export sales as a possible direction of expansion for the company. Its current market is throughout NSW with entry into Northern Victoria, Southern Queensland and South Australia.

"There is growth in the sack supply of feed products," says Threlfall. "We achieve particular customer requirements by working with specialist external consultants for the formulations, and our products are free of animal by-products.

"The new sack filling and palletising equipment enables the quick switch of products for responding directly to clients' needs."

KBS has a wide variety of sack filling, palletising and wrapping equipment and the experience necessary to assist the client with the best choice to suit their needs.

Kockums Bulk Systems

Contact info and more items like this at wf.net.au/W603



Self-retracting lifeline range

The Nano-Lok edge self-retracting lifeline (SRL) is engineered for both foot level tie-off and sharp-edge applications.

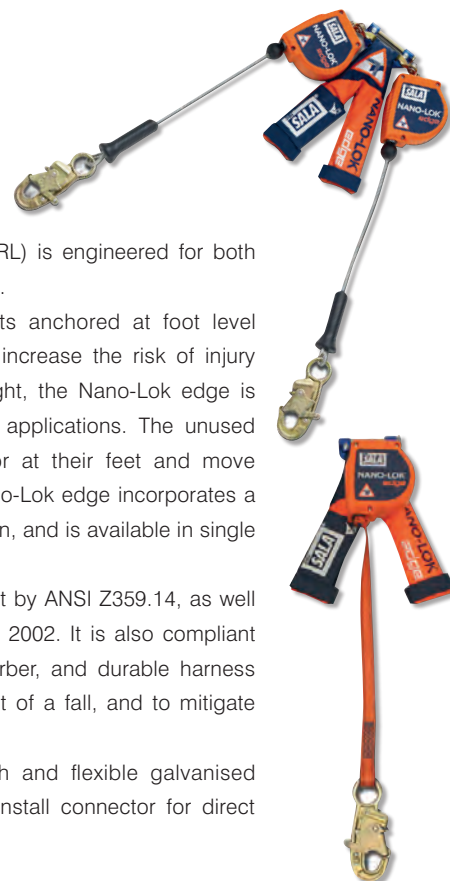
While traditional general-purpose products anchored at foot level and used in sharp-edge environments may increase the risk of injury and create a false sense of security at height, the Nano-Lok edge is designed specifically for use in sharp-edge applications. The unused lifeline also retracts so workers can anchor at their feet and move freely and with confidence at height. The Nano-Lok edge incorporates a 2.4 m working length lifeline, ergonomic design, and is available in single or twin (100% tie-off) units.

The personal SRL has passed the most stringent leading edge standard set by ANSI Z359.14, as well as the sharp-edge requirements outlined in VG11.60 and VG11.54 in EN360: 2002. It is also compliant with AS/NZS 1891.3. Its tough lifeline material, patent-pending energy absorber, and durable harness connector work together to absorb and limit the arresting forces in the event of a fall, and to mitigate the effect of a sharp edge on the lifeline even under harsh conditions.

The SRL includes an integrated backpack-style energy absorber, tough and flexible galvanised cable or webbing lifelines, various hook/karabiner options, and an easy-to-install connector for direct harness attachment.

Capital Safety Group (Australia)

Contact info and more items like this at wf.net.au/W599



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All products in the Specsavers Safety Eyewear range are fully certified and covered by the AS/NZS 1337.6:2012 Standards Licence No: SMKH25349 Issued: 30 May 2012.



Earmuff series

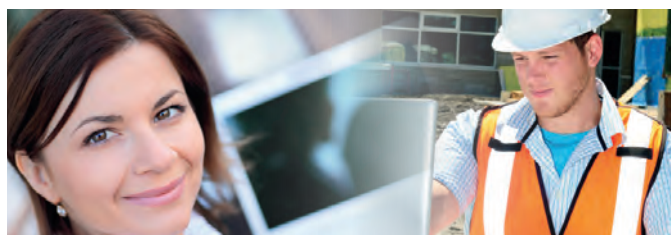
The 3M Peltor X series earmuffs are 3M's latest advancement in hearing conservation and are designed to be lighter while providing good attenuation. New technologies in comfort, design and protection all come together in the earmuff line that features an innovative design on the cup as well as a breathable headband.

The X4A model uses a newly designed spacer, specially formulated foam liners and innovative ear cushions to help improve attenuation. The lightweight, lower-profile earmuff helps with compatibility with other personal protective equipment and is designed for protection against moderate- to high-level industrial noise and other loud sounds. It features an electrically insulated wire headband, often referred to as 'dielectric'.

The X5 earmuffs feature 3M's highest SLC80 (35 dB), making them suitable for high-noise environments. The high attenuation delivered by the X5A earmuffs is possible as a result of a combination of advanced technologies including: newly designed spacers, specially formulated earcup liners and innovative foam contained in the cushions. It also features an electrically insulated wire headband, often referred to as 'dielectric'.

3M Personal Safety

Contact info and more items like this at wf.net.au/W602



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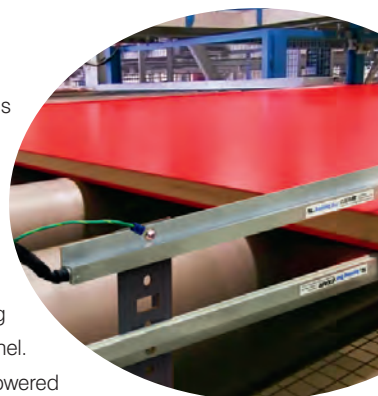
Static eliminator

The Exair Long Ionizing Bars eliminate static electricity on paper, film and plastics that are up to 2438 mm wide. Static electricity can attract dust and foreign materials, ruin product appearance, produce tearing or jamming and 'zap' personnel.

The profile of the electrically powered ionising bar is compact, allowing it to fit in the confined spaces of machinery, where the static charge is generated. A high concentration of positive and negative ions produces fast static decay, neutralising any surface within 51 mm of the bar.

The long length of the ionising bars allows them to be used across large production lines. The design of the shockless ionising bar has improved performance and reliability in industrial applications and its life expectancy has been extended by insertion moulding the stainless steel ion emitters into a durable plastic.

The ability to eliminate static can be greatly improved when a Super Air Knife is attached to the ionising bar. The air knife delivers more ions and is effective from a greater distance which is suitable for high-speed, high-charge applications. Air delivery can also remove dust and clean the product surface.



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RESOURCES

Safety in Action Perth



Given Western Australia's focus on the large and lucrative mining industry in conjunction with the state's Safety Reform Strategy, Safety in Action Perth could not come at a more appropriate time. The two-day event will be held at the Perth Convention and Exhibition Centre on 11 and 12 June 2014.

The Western Australian minerals and petroleum sectors are said to contribute 91% of the state's total merchandise exports, growing by 15% per annum on average. The value of the mineral and petroleum industry alone repeats its weighty significance in Australia's largest state, totalling \$102 billion in 2012-13. As the industry provides around 100,000 employment opportunities, safety in the workplace remains a top priority.

Recently, the Western Australian Government has committed to overhauling the way safety and health in the resources industry are regulated, with the Department of Mines and Petroleum (DMP) coordinating the project, also known as Reform and Development at Resources Safety (RADARS).

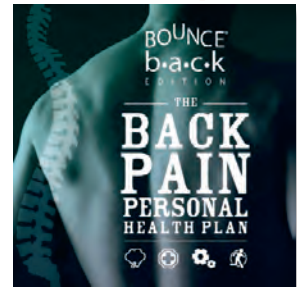
RADARS emphasises the need to redefine the cultural mindset surrounding three specific areas - mining and exploration; petroleum and geothermal energy; and dangerous goods. In order to save lives and reduce injuries, industry, the regulator and employees must work together to ensure that a resilient safety culture is encouraged and maintained.

To achieve the overall goal of 'zero harm' in the workplace, consultation, communication and participation are paramount. The government is pushing for the risk management approach to become the norm in the resources industry. Work programs are being devised and prioritised on the basis of evidence and risk, focusing on reducing the likelihood of serious incidents in all aspects of resource industry-based activities in Western Australia.

Safety in Action Perth can provide the resources industry a wide range of safety solutions that go well beyond personal protective equipment and high-tech automation. Visitors will have the opportunity to discover a comprehensive range of the latest safety-related products and services, as well as network and learn from industry experts through a number of dedicated feature areas and free seminars. Safety seminar sponsor Workplace Access & Safety will be hosting two seminars: Are you ready for the revised As1657 on walkways, ladders and platforms? and Safety budget success - How to plan it, fund it and get everyone on board. Other companies involved in the seminar sessions include myosh, Australian Drug Foundation, WorkSafe and Logic Health.



Bounce back from back pain



It has been estimated that as many as eight out of 10 Australians will experience back pain at some time in their lives. The cost of treatment and lost productivity each year is in the billions of dollars.

It's much harder to put a figure on the human cost, however, with many people bracing themselves to deal with ongoing debilitating pain. For those who have tried a number of treatments and failed to find a lasting solution, the condition can have a devastating impact on their quality of life.

The *Back Pain Personal Health Plan - Bounce Back Edition* is written by two physiotherapists who have extensive experience in the area of back pain. A comprehensive self-help manual, the book is designed to help sufferers take control of their pain management.

The publication is based on current research and clinical evidence, it includes easy-to-follow, safe and effective neck and back exercises that may increase the flexibility and strength of the spine, as well as teaching efficient posture.

It will also explain:

- How to break the fear and anxiety cycle that keeps them in a vulnerable and painful state
- How the spine and body works
- How to increase confidence levels through exercise
- How to identify muscular tightness and imbalances
- Ways to improve posture
- Ways to use stretching to ease the build-up of tense muscles
- How to gradually strengthen back muscles while increasing confidence and regaining a full range of activity.

The exercises have been carefully selected from the Bounce Back Spinal Strength and Stability Program. The program, which is based on the experiences of over 5000 participants, retrains brain and body to build strength, ensuring long-lasting results.

The book is available in April 2014 from www.exislepublishing.com and all good book stores.

Taking a stand on glove standards

Sometimes taken for granted, your hands are vital tools that perform simple and complex tasks with precision and need to be taken care of. To be injured or, worse still, amputated, would not only be devastating but could also mean you are unable to carry out the thousands of activities that are required to take place every day both at home and in the workplace. Work-related hand and wrist injuries are the most common work-related injury type and are an important problem in the Australian workforce, according to SafeWork Australia's 'Work-related hand and wrist injuries in Australia' report. The report says injuries range from being relatively minor to very severe, most commonly involving the fingers, with open wounds the most common injury type and amputation the most severe injury type.

Preventing work-related hand injuries requires risk assessment to understand the hazards that exist and management to prevent or mitigate the risk as far as reasonably possible. Measures to minimise the risk of hand injuries include machine guards, lockout/tagout procedures, safety training programs, etc. Personal protective equipment (PPE) such as gloves cannot eliminate the hazard but are still an important safety measure as the last defence against hazards and therefore should be carefully selected.

However, with today's myriad industrial hand protection options on the market, how do you tell a quality glove that will provide you with the protection you need?

Australian/New Zealand Standards help make the choice of which brand of PPE to choose very simple. It helps to ensure you are getting the very best and safest protection for your workers. Purchasing products that are not made to meet the requirements of a standard increases the risk of both injury to employees and prosecution by the relevant safety authority.

Look at your safety helmet and safety glasses, and your respiratory and hearing protection - they are all certified to AS/NZS Standards. No serious employer or safety professional would specify either one of those products if they were not certified to the appropriate Australian Standard. So why should gloves be any different?

As industry does for eyewear, hearing and respiratory equipment, the introduction of a requirement for certification to AS/NZS Standards for gloves could help reduce the frequency of hand and wrist injuries.

Many gloves and other PPE claim compliance to a standard, but how do you know that the testing has been conducted? Also, how do you know that the factory is consistently making the product to the same standard and that the product is retested on a regular basis? Certain manufacturers claim compliance to a standard or claim that their product is manufactured to meet the requirements of a standard. This is not the same as "certified" to a standard. In order to claim certification to a standard, the manufacturer must engage an independent certification body such as SAI Global and satisfy the following:

- All test certificates specified in the appropriate standard must have been conducted by an accredited independent third-party testing laboratory;
- The manufacturing facility must undergo an audit to ensure systems and procedures comply with the appropriate standards;
- The manufacturing facility must undergo an annual audit by the same third party; and
- Products must be retested on a regular basis.

This provides the end users and employers with the peace of mind that the PPE will provide the protection it claims.



Anthony Elliott is Managing Director of Elliotts, manufacturer and supplier of quality safety gear throughout Australasia. He has 25 years' experience in designing, manufacturing, sourcing and distributing specialist gloves, personal protective equipment and apparel. Elliotts has a core focus on Product Certification and a commitment to delivering the highest standard of products available, with eight sites and more than 340 products certified across seven global standards.

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PP100007391

Printed and bound by Pegasus Print Group Co. Pty. Ltd.
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JOB FUNCTION

(please choose one only)

- 1 Management - Corporate/General
- 2 Management - Manufacturing/Engineering/Specialist
- 3 Engineer - Electrical
- 4 Engineer - Electronics
- 5 Engineer - Process
- 6 Engineer - Project
- 7 Purchasing/Procurement
- 8 Technician - Maintenance/Service
- 9 Technician - IT
- 10 Technical Officer
- 11 Scientific Officer - R&D
- 12 Scientific Officer - QA
- 13 Consultant
- 14 Contractor/Tradesperson
- 15 OHS/EHS
- 16 Education/Training
- 17 Student-Undergraduate/Apprentice
- 18 Analyst
- 19 Sales/Marketing

INDUSTRY

(please choose one only)

- 1 Agriculture/Rural
- 2 Building/Construction
- 3 Chemicals/Allied Products
- 4 Communications Systems
- 5 Defence/Military
- 6 Education
- 7 Emergency Services/Law Enforcement/Security
- 8 Engineering Services
- 9 Environmental Services
- 10 Finance/Banking/Insurance Legal
- 11 Food Industry - Bakery
- 12 Food Industry - Beverages
- 13 Food Industry - Confectionery
- 14 Food Industry - Dairy
- 15 Food Industry - Fruit & Vegetables
- 16 Food Industry - Meat
- 17 Government - Federal
- 18 Government - State
- 19 Government - Local
- 20 Health/Hospital
- 21 Instrumentalities (eg CSIRO)
- 22 IT - Networking
- 23 IT - Security
- 24 IT - Storage
- 25 IT - Wireless
- 26 Laboratory - Analytical
- 27 Laboratory - Clinical/Medical
- 28 Laboratory - Life Sciences
- 29 Logistics/Transport/Warehouse
- 30 Manufacturing
- 31 Mining
- 32 Oil/Gas/Coal
- 33 Packaging
- 34 Processing
- 35 Retail/Wholesale/Hire
- 36 Service/Maintenance
- 37 Telecommunication
- 38 Testing/Certification (eg NATA)
- 39 Utilities

Introducing CleanSpace2™ the next generation in **personal respiratory protection**



CleanSpace2™ combines the ease of use and mobility of a passive respirator with the added protection, reliability and durability of a positive air powered respirator. What makes CleanSpace2™ so different is that it does this all in a small compact unit and without the high costs normally associated with the purchasing and maintaining PAPRs.

With its innovative, award winning revolutionary design, the breath responsive CleanSpace2™ gives employees a level of comfort and confidence against air borne particulate and gas contamination that has never before been experienced in the workplace.

To learn more about how CleanSpace2™ can improve safety, productivity and reduce costs in your company please contact your leading safety supplier or PAFtec Australia on **+61 2 8436 4000** or at **sales@paftec.com**

CleanSpace2™
EVERY BREATH COUNTS

2013 Australian International Design Award
2013 BSIF – Innovation Award (UK)
2013 Preventica, Innovation Award (France)
2013 SHP IOSH Awards, Innovation of the Year (UK)



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