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RESOURCEFUL RADIO FOR MOBILE WORKERS

Ashley Marshall, Head of Network Solutions, Airwave Solutions Australia
Digital private mobile radio (PMR) can enhance safety and efficiency for workers in the resources sector.

Explosions at oil and gas plants or mine sites and toxic gas leaks at petrochemical plants can cause widespread damage to equipment, lost revenue, environmental damage, brand damage and, in the worst cases, injuries among employees and in the neighbouring area. And there can be a considerable impact on the local communities both during and in the aftermath of an incident.

To prevent these incidents happening, the resources industry has some of the strictest regulations regarding fire, explosions and gas leaks. And yet the principle cause of most disasters and failures is human error or failing to intervene correctly when the first alarms are signalled. For instance, if pressure builds in a tank but human error leads to a failure to vent the tank, pressure can build further leading to a boiling liquid expanding vapour explosion (BLEVE). The catastrophic disaster on Piper Alpha in 1988 was exacerbated by human error - one shift did not communicate effectively with the next shift.

Human error has also been linked to incidents at ESSO’s natural gas plant explosion at Longford in Victoria’s Gippsland region, Flixborough (UK), Seveso (Italy) and Toulouse (France). Each time, new regulations are introduced to tighten up or create new safe processes.

Putting safety first

Digital private mobile radio (PMR) - such as TETRA (Terrestrial Trunked Radio) and APCO-25 (P25) - can significantly help the resources industry reduce human error, particularly at the intervention stage when it can have a dramatic impact on business activities and public and employee safety.

Its first role is in the early prevention or identification of faults. Modern oil refineries and petrochemical plants are awash with sensors and meters, measuring pressures, tank levels, emissions and so on. Digital PMR is the ideal solution for industrial telemetry; modules can wirelessly connect sensors to control rooms, with the robustness and reliability of a wired network. By using digital PMR, an operator can rapidly deploy new sensors without the need to provide new cabling. In hard-to-reach locations, this alone helps to reduce safety issues.

Digital PMR telemetry has already been used to monitor electricity grid infrastructure in Australia (Ergon Energy) and Spain, and provide vital signs monitoring in some UK ambulances. But it’s not enough to simply monitor equipment remotely. When alarms are triggered, or meters have faults, maintenance engineers need to be dispatched, and they need a reliable solution for relaying the results or their investigations to the control room. Again, PMR can enable this with the use of electronic forms on a PMR-based PDA. Readings from meters can be input into the device on the spot and immediately sent to the control room over the air.

The alternatives are not attractive: either the engineer must call their report in, which can introduce errors in transposition, or they can batch process their results when they return to the administrative section. Neither option is as efficient or safe as the ability to instantly and automatically update the control room on alarm faults.

Supporting lone workers

Industry regulations governing site safety require that resources companies be acutely aware of the personal safety of staff at mines, plants, tank farms and refineries. On these vast sites, with dangerous chemicals and exposed working places, many maintenance engineers are lone workers and exposed to countless hazards in the working day. The onus is increasingly on employers to ensure that workers’ safety is guaranteed as much as possible.

Again, digital PMR can help in a number of ways. Firstly, PMR equipment is intrinsically safe and so guaranteed not to spark a fire. This is not necessarily the case with other mobile, wireless and fixed-line handsets. If you are working in an environment with potentially flammable vapours, this is a very important feature.

Secondly, there are digital PMR solutions that allow both passive and active
monitoring of employees in case of ‘man down’. In active mode, a lone worker simply presses a panic button to alert the control room they need urgent attention; in passive mode, an alarm is triggered if they do not respond to regular automatic prompts on their handsets. Another option is ‘ambient listening’, which enables the microphone of the handset to be switched on remotely.

As most digital PMR devices also contain GPS chipsets, the control room is able to accurately locate where the worker is and dispatch support and isolate the area if there is a leak or risk of fire. A virtual perimeter - also known as a geofence - can also be used to define the level of risk posed based on specific location. If an employee strays into a high-risk location, it can trigger an alarm. Risk levels can also be defined by time, such as automatically switching on the monitoring during hours of darkness.

And to be even more assured of worker safety, digital PMR can wirelessly connect with vital signs monitoring equipment. Workers can be monitored for ECG, blood pressure, blood oxygen levels and so on, with the information relayed to the control room by radio. This is particularly useful when workers are at risk of inhaling toxic fumes.

When the worst happens

In the event of a major disaster, a series of explosions or a toxic gas plume for instance, robust communications are absolutely vital in coordinating containment and ensuring the safety of those on-site.

Digital PMR provides a secure, resilient network that is highly unlikely to fail in the event of an incident. With single-site PMR network deployments, base stations are placed outside the danger zone but provide 100% coverage over the entire site. In contrast, mobile networks are only ever provided on a best-effort basis.

When disasters have happened - such as 9/11 and the London bombings - the mobile network has become overloaded. Similarly, fixed-line infrastructure can be destroyed in fires.

However, digital PMR is resilient, wireless and very unlikely to become overloaded. This is vital for on-site emergency response personnel who will be required to coordinate the response in the initial stages of a disaster. Because PMR voice communications are crystal clear, it will ensure there is no confusion or misunderstanding even in high-noise environments. The fact that PMR handsets are intrinsically safe will ensure that no flammable fumes are ignited, exacerbating the situation.

In most of Australia and the UK, the critical public safety communications network used by the police, fire and rescue and ambulance services is mostly digital PMR technology. If the resources industry adopts the same digital PMR technology, with the right levels of privacy and security authorisation, it will be possible to interoperate with emergency services in the event of an incident.

Digital PMR is a flexible technology that ticks all the boxes on resilience, security, safety and coverage. And with an expanding range of devices and third-party developers integrating with open standards-based architecture, PMR is a communications solution for tomorrow as well as today.

User benefits of PMR

- One-to-many calling with talk groups.
- Point-to-point calls within the PMR network and with PSTN/mobile networks.
- GPS to monitor staff location.
- Panic button for lone workers.
- Status messages at the touch of a button.
- Mobile data for over-the-air form filling.
- PMR/SCADA enabled human and machine telemetry to monitor vital signs and equipment.
- Intrinsically safe terminals.

Benefits of PMR to resources companies

- Resilient network infrastructure, guaranteed to work before, during and after incidents.
- Cost-efficient network rollout compared to greenfield fixed line or cellular deployment.
- Direct connection capability to emergency services to collaborate in emergencies can be agreed.
- Optimised workforce with PMR-enabled field force automation (FFA) eg, mobile forms and task allocation.
- Can be deployed as back-up infrastructure to fixed line, mobile, wireless or video surveillance networks.
- Large RF cell footprint sizes so PMR base stations can be away from explosive materials.
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NEW PRODUCTS

**Welding helmet**
The Cigweld ProPlus Welding Helmet has a lightweight design, high-performance battery and versatile visual functioning making it suitable for MIG, Stick, TIG, plasma arc welding, air carbon arc cutting, oxy/fuel gas welding, oxygen cutting and grinding. The auto darkening filter lens has four inbuilt sensors to ensure there is no disruption between welding jobs. Wearers can move between welding, cutting and grinding without distraction - the helmet reaction time is 1/25,000th of a second. The low amperage TIG rating of 2 A and above supports even the most subtle welding applications, so wearers can control the arc while the helmet automatically controls the visibility.

The digital LED display delivers a discreet feed of the settings with a manual option when required by the user. The helmet has a viewing area with good dimensions, a solar-assisted energy-saving battery and an ergonomic four-point harness with cushion support for the head. Optional Cigweld magnification lenses can further extend the vision enhancement of the helmet.

Available in four graphic designs, the ProPlus helmet meets all the stringent requirements in AS/NZS1337.1 and AS/NZS1338.1.

*Cigweld Pty Ltd*
www.cigweld.com.au

**Arc-rated protective workwear**
The Huski Workwear arc-rated range of protective clothing includes the Blaze jacket and Flame pant. Suitable for those industries working with live power, the range uses a technical combination of a waterproof/breathable fabric with high visibility that is arc-rated, flame-retardant and anti-static, and safety harness.

Over the last couple of years Huski has continued to progress its range and has recently released the improved version of the Blaze jacket. After extensive testing, it developed advanced seam sealing techniques, improved the back harness and reconfigured the garment to produce an even a better level of weather protection.


*Palazzi (Trading) Pty Ltd*
www.huski.net

**Workplace noise protection solution**
The Happy Ears workplace noise protection solution is now available in Australia. Compliant to Australian Standard Class 3 (18dB – 21dB), the earplugs filter harmful noise while preserving good sound quality and feeling. Whether you're in the warehouse, on a building site or a mining environment, Happy Ears protects the ears while allowing the user to conduct conversations with work colleagues.

The earplugs are comfortable enough to be kept in the ear all day and help protect those who work in noisy environments against potential hearing impairment due to long-term exposure to excessive noise.

With short exposure to sounds exceeding 80dB negatively affecting hearing, it's easy to see how this can also have an impact on operational efficiency and, in turn, the bottom line. Key features include: filter harmful noise, continue conversations; maintain good sound quality; hygienic; reusable, just rinse in water; easy to use; complies to Australian Standard (Class 3, 18-21dB); available in three colours; and suitable for many other personal applications, eg, sleep, music, travel, study and gym.

*Happy Ears Australia, a division of Pathtech Pty Ltd*
www.happyears.com.au
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**Faceshield protection**

The Honeywell Turboshield faceshield is suitable for industrial workers who are exposed to a risk of chemical, molten metal splashes or impact to the face.

The faceshield’s suspension has tripled the contact area with the head compared to traditional suspension, eliminating pressure points for maximum comfort throughout the day. Other features include: it provides 50% more chin coverage than a traditional-style faceshield without the need for additional accessories; dual material technology cushions the head; and the breathable headband is removable and washable. Adjustable and easy to use even while wearing gloves, the faceshield is also compatible with a range of Honeywell and Howard Leight by Honeywell PPE, such as hard hats, earmuffs, respirators and eyewear. Its hard-hat adapter is compatible with most major hard hats including the Honeywell hard hat portfolio. The visor exchange system allows visors to be released from the faceshield with the push of a button and securely attached within seconds. Visors are sold separately, and are available in: clear - for most indoor applications; Shade 3.0 - a welding shade for torch brazing applications; and Shade 5.0 - a welding shade suitable for cutting operations. The clear visors are also available either uncoated or with anti-fog hard coat for extended visor life. The toric lens provides for good clarity of vision and an increased field of view. The faceshield is compliant with AS/NZS 1337.1:2010 for extra-high impact, splash resistance, molten metal and hot solids. Welding lenses are also approved as compliant with AS/NZS 1338.1. The UV-resistant polycarbonate visors are 2.2 mm thick at the optical axis. All components of the Turboshield are dielectric and have a maximum operating temperature of either 97°C for the headgear with visor or 131°C for the hard-hat adapter and visor.

**Honeywell Safety Products Australia Pty Ltd**

www.honeywellsafety.com

**Safety overshoes**

Launched on the Australian market by Trading Downunder, the French-made Gaston Mille Safety Overshoe is used to slip over the top of visitors’ personal footwear. It features a 200J steel toe-cap with moulded thermoplastic polyurethane (TPU) which also shields against splashes, cuts, dust and abrasion. The slip-resistant half sole is made of TPU and has a protection tongue for the instep.

Designed to fit most urban shoe styles, the removable and interchangeable strap allows the product to be adaptable to different heights and can even be worn with heels. As there is no direct contact between the foot and the safety overshoe, it can be re-used by multiple visitors. The safety overshoe is available individually or as a kit of five pairs - two large, two medium and one small.

**Trading Downunder**

www.tradingdownunder.com.au

**Single gas monitor**

The Tango TX1 Single Gas Monitor features DualSense technology that is claimed to improve worker safety, regardless of bump test frequency, while reducing overall maintenance costs.

The monitor detects carbon monoxide (CO), hydrogen sulfide (H₂S), sulfur dioxide (SO₂) and nitrogen dioxide (NO₂). The DualSense technology includes two identical sensors for the detection of a single gas. The two sensor readings are processed through a proprietary algorithm and displayed as a single reading to the user. The technology was developed to address the major challenge of making sure workers are always using fully functioning, reliable instruments in the field. Previously, this required a bump test of the instrument before each day’s use. The unit is powered by one replaceable 2/3 AA lithium battery that can power it continuously for three years even if the instrument is being used in the optional ‘always on’ mode. It is also compatible with iNet, Industrial Scientific’s Gas Detection as a Service solution. This solution is designed to help increase safety by providing visibility into gas detector alarms, exposure and usage.

**Industrial Scientific Corporation**

www.indsci.com
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**Electrical mounting block**

The Ampere Electrical Manufacturing Purlin Mounting Block range includes the Purlmate (released in late 2012) for top hat purlins and the new CnZ Mate for C and Z purlins, both suitable for use in industrial and commercial buildings and sheds, mounting GPOs, switches and data sockets on to purlins.

The mounting blocks have a patented design that not only simplifies and reduces installation time, it is also claimed to work well and looks neat.

Vermin and dust proof with 25-20 mm cable feeders, the units can be installed in tight areas and are fully compliant with all relevant Australian/New Zealand standards.

*Ampere Electrical Manufacturing Company Pty Ltd*

www.ampere.com.au

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**Welders fall protection range**

The Pro Welders fall protection specialist range by Protecta consists of a harness and six shock absorbing lanyard models designed to cover the majority of applications encountered in high-temperature work environments. Constructed from Kevlar, the range provides heat-, flame- and cut-resistant properties, ensuring safety around high-heat environments.

The Pro Welders range is suitable for use in ‘hot work’ such as: welding, flame cutting and grinding, where sparks and slag can easily compromise standard polyester webbing harnesses and lanyards.

The equipment is tough and durable. Not only are they resistant to extreme heat, cuts and abrasions, the lanyards also cater for workers who have a combined body weight with tools and equipment between 50 and 160 kg.

The range uses Kevlar thread in its harness and lanyard stitching, and a removable Kevlar cover that protects the lanyard’s shock pack casing.

*Capital Safety Group (Australia)*

www.capitalsafety.com

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**DC buffer modules**

PULS has released the UC10.241 and UC10.242 DC buffer modules. They extend the buffer times currently offered by the UF20.241 and UF20.481 by using Electrochemical Double Layer Capacitors (EDLC) which can provide a back-up time of up to 33 s for a 10 A load.

Some of the key features of these modules are good operational lifetime expectancy and, unlike with DC UPS systems which use batteries, no cabinet ventilation is required. With a short charging time compared to that of batteries, the units are rapidly back in ready mode following a discharge.

They also maintain a regulated output voltage in buffer mode of 22.5 V, are capable of providing full output power between -40 and +60°C and with quick-release spring clamp terminals, wiring is quick and easy.

Other features include an inhibit digital input that when activated turns off the output, buffering and ready relay outputs to provide unit status back to a control system.

*Control Logic Pty Ltd*

www.control-logic.com.au
Vacuum lifters solve OHS problem at paper factory

The vacuum tube lifter improves handling of heavy sacks at the Koehler paper factory - even in difficult conditions with high levels of dust.

Forklifts are used to drive pallets loaded with heavy sacks into the halls of the Koehler paper factory in Kehl, Germany. The raw material must be prepared and then moved to the paper machines. Previously, this work was done manually, placing the employees under great physical strain. Now, the Schmalz vacuum tube lifter JumboFlex 50 ensures faster materials handling while taking the burden from the employees.

A major expansion of production and the increasing number of types of paper pushed the previous JumboFlex 35 (35 kg max lifting capacity) vacuum lifters to the limits of their capacity. The result was that Koehler employees had to start working by hand again to handle the heavier, heavier sacks. An internal analysis showed that it was not worthwhile to have an automated system in this production area. So the paper experts started looking for a suitable handling solution to take the strain off the employees in the long term.

The JumboFlex 50 (50 kg max lifting capacity) handles small to medium-sized loads very quickly and ergonomically. The easy-to-grip operator handle can be operated intuitively with one hand. Depending on the employee’s preference, it can be operated with one or two fingers on the left or right hand. The different suction pads can be replaced quickly for a wide variety of applications. The round suction pad with a special skirt to seal the work pieces is suitable for powerful, safe handling of sacks. The lifting speed can be precisely regulated depending on the practical requirement and the amount of work. The vacuum lifter’s optimised ergonomics allow the employees to work with a back-friendly posture. This keeps the handling speed at a consistently high level and reduces absences due to health problems.

“Our experiences with the vacuum tube lifter have been very good across the board,” says Koehler Factory Manager Manfred Bähr, who is responsible for supplying raw materials to paper machine 6 in the Kehl factory. He adds that using the JumboFlex 50 has dramatically boosted productivity and taken the burden off employees. “Our employees can handle the increased amount of work in less time.”

According to Bähr, work is now easier because of the improved ergonomics that take the strain off the employees’ backs and joints. He also says that they have achieved a high safety standard despite the fast handling processes.

Millsom Materials Handling
www.millsom.com.au
Mechanic technical gloves

The Mec-Flex range of mechanic technical gloves features 12 task specific models catering for simple handyman tasks right through to high-impact mining, and oil and gas duties. The range has been certified to AS/NZS2161.3:2005 protection against mechanical risks and CE standards by SAI Global.

The range contains Elliotts K-Guard Thermo Plastic Rubber Exo-skeleton top-of-hand protection. This feature provides an ‘armour-like’ function to the top of the hand, providing metacarpal, knuckle and finger protection without compromising comfort, ventilation or dexterity. The soft TPR components of the Exoskeleton are engineered to provide insulation and reduce the force of impacts transmitted to the hand.

The Mec-Flex Oiler provides top-of-hand protection and palm design with grip, high tear and abrasion resistance. It features high-visbility colouring and Hyde-Tex DX outer palm durability and grip. The Hyde-Tex 70 synthetic leather palm base layer has a Kevlar stitched palm for added durability. The Mec-Flex Utility is designed for day-to-day handling and utility tasks where high visibility and form fit are required. It features high-visibility colouring, perforated fourchettes (finger walls), high-viz two-way form fitting stretch spandex, silicon finger tips and a Hyde-Tex 85 synthetic leather palm. The Mec-Flex Quick Fit is a versatile, economical glove designed for numerous professional and handyman tasks. The Hyde-Tex 85 synthetic leather palm has two-way form fit spandex on the back of the hand, perforated fourchettes (finger walls) and re-enforced synthetic finger tips. The Mec-Flex Impact x 3 is a fingerless, versatile glove with vibration absorption and back-of-hand and finger protection. It has two-way form fit stretch spandex and rubberised material. The Hyde-Tex 80 synthetic leather palm has a wraparound, pull-tab with velcro closure.

Elliott Australia Pty Ltd
www.elliottaustralia.com

Aluminium platform step

The Ladamax PS15/12 aluminium platform step has a working platform at 3.45 m with a working reach height of 5.4 m. Rated at 150 kg load capacity, the aluminium platform step is designed for safe and reliable access when working at height.

The large, fully aluminium platform has a test load of 500 kg and is supported by double-braced safety tread. Safety gates, that enclose the user when working, are available as an optional extra.

Other features include: fully swaged treads, no rivets to shear; industrial-strength frame; extra support on the lower half of the ladder with elongated, hollow-steel supports under each tread; the bottom tread has full-width support; the upper frame is fully supported with gusset braces; the rear RHS welded section is large and strong; rear rollers provide mobility; and a push rod is used to assist with closing the frames.

Users must ensure the product is footed/stabilised at all times and used on flat, firm, clean surfaces. Ladamax suggests users make themselves familiar with ‘fall arrest systems’ when using tall platforms. The company also recommends that when considering this product, contractors use an appropriate fall prevention system (IFAS), installed by qualified personnel.

Ladamax Aluminium Products Pty Ltd
www.ladamax.com.au

Synthetic marijuana test

The LWS Synthetic Cannabis Test identifies synthetic cannabinoids (JWH - 018 and JWH - 073) and their metabolites in human urine without the need of instrumentation.

JWH - 018 and JWH - 073 are the primary synthetic cannabinoids responsible for the euphoric and psychoactive effects that imitate marijuana. Common street names for synthetic marijuana include: Kronic, K2, K3, Spice, Bliss, Buzz, Pulse, Huah, Myster, Black Mombo, Cloud Nine, Ocean Blue and Genie.

Additional features of the device include: easy-to-use, one-step process; accurate urine metabolite detection; cost-effective alternative to laboratory confirmation; uses alternate immunochromatographic technology; individually packaged and results are available in approximately 5 - 7 min.

LaneWorkSafe Pty Ltd
www.laneworksafe.com.au
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On Tuesday, 10 June 2014 in the Australian Capital Territory Industrial Magistrates Court, an early mention in the Kenoss Contractors case was heard. Some matters raised in the 10 June mention were canvassed in a further hearing on 17 June 2014. In this article, we canvass the developments in both hearings.

This case includes a prosecution of both an organisation for allegedly failing to meet the primary health and safety duty and an officer for allegedly failing to exercise due diligence under the Work Health and Safety Act 2011 (ACT) which commenced on 1 January 2012. This case is ostensibly the first officer prosecution under the new harmonised WHS laws.

Background
In March 2012, Kenoss Contractors Pty Ltd (Kenoss Contractors) was conducting work at a site in Turner in the Australian Capital Territory (ACT) and a 48-year-old worker/truck driver was electrocuted when he tipped his truck trailer to offload gravel at a dumping station at the site and the trailer touched a power line (Turner Incident). It is understood that WorkSafe ACT in investigating the Turner Incident identified that the power line was low and alleges that a properly conducted risk assessment would have eliminated the risk by putting the dumping station in a different location (such as across the road out of the reach of the power lines).

In the ACT, Kenoss Contractors and one of its officers have been prosecuted for alleged breaches of their respective duties under the Work Health and Safety Act 2011 (ACT) (WHS Act) arising from the Turner Incident. This fatality was one of the four fatalities (three of which had been in the ACT construction industry) in a 7-month period which led to the Getting Home Safely Report being commissioned by the ACT Government. The facts all arose prior to the appointment of liquidators and receivers to various companies and assets in the Kenoss group.

The charges under the WHS Act
Charges against Kenoss Contractors
Kenoss Contractors has been accused as the person conducting a business or undertaking (PCBU) with allegedly breaching the primary duty under section 19 of the WHS Act to ensure the health and safety of its workers while at work in the business or undertaking by failing to provide and maintain a work environment without risks to health and safety.

Kenoss Contractors has been charged with a category 2 offence under section 32 of the WHS Act as the matter relates to an alleged failure to comply with a health and safety duty where that failure exposed Mr Booth to a risk of death, serious injury or illness. This offence carries a maximum penalty of $1.5 million for a PCBU that is a corporation and $300,000 for a PCBU as an individual.

Charges against the relevant officer
The individual officer has been accused of allegedly failing to exercise due diligence under section 27 of the WHS Act to ensure Kenoss Contractors complied with its work health and safety duties under the WHS Act.

The officer has also been charged with a category 2 offence under section 32 of the WHS Act as the matter relates to an al-
The prosecution of the officer

The individual officer is being prosecuted as a result of alleged failures in due diligence in relation to his role as Project Manager at the site at Turner. The officer pleaded not guilty and the hearing has been scheduled for 17-19 December 2014.

The prosecution of the PCBU

The 10 June 2014 mention

Kenoss Contractors is currently in liquidation and was unrepresented at the 10 June 2014 mention. A legal issue that arose is whether or not Kenoss Contractors can be criminally prosecuted whilst insolvent, a matter that the liquidators had raised on a previous occasion.

Section 471B of the Corporations Act 2001 (Cth) (Corporations Act) provides that a person cannot begin or proceed with a proceeding against a company that is being wound up in insolvency, except with the leave of the Federal Court of Australia or the ACT Supreme Court. The Office of ACT Director of Public Prosecutions (DPP), however, submitted that section 471B does not apply to criminal proceedings.

Section 500(2) of the Corporations Act provides that after the passing of a resolution for voluntary winding up, no action or other civil proceeding is to be proceeded with or commenced against the company except with leave of the Federal Court of Australia or the ACT Supreme Court. The DPP also submitted that that does not apply in criminal proceedings this being supported by the plain and ordinary meaning of the language of the section and the purpose of the legislation.

The DPP submitted that sections 471B and 500(2) did not apply to Kenoss Contractors in the event respectively, of either a court-ordered winding up or a voluntary winding-up and that therefore it could proceed with the prosecution of the company.

Chief Industrial Magistrate Lorraine Walker listed the matter for a further hearing on 17 June 2014, but limited to determining whether it is appropriate for the prosecution against Kenoss Contractors to proceed in light of the Corporations Act issues outlined above, so that the Liquidators of the Company could appear.

The 17 June 2014 hearing

On 17 June 2014, the liquidators appeared before her Honour Chief Industrial Magistrate Walker on the point of whether Kenoss Contractors can be criminally prosecuted whilst insolvent.

Counsel for the liquidators did not advocate a particular position in relation to whether leave to proceed with the prosecution was required and limited its submissions to assisting the Court by outlining that the liquidation was by way of a creditor’s winding up after the process was initiated by the members (not an uncommon practice) thus resolving the issue of whether section 471B or section 500(2) of the Corporations Act was the relevant section for Her Honour’s consideration, in favour of section 500(2).

In considering section 500(2), the DPP submitted that for both policy reasons and also the plain meaning of the words used in the section, ‘no action or other proceeding’, only civil proceedings are prevented from being commenced without leave of either the Federal Court or the Supreme Court. It is the word ‘other’ before ‘civil proceeding’ which seems to suggest that commencing criminal proceedings is not intended to be prevented by the section. The historical meaning of ‘action’ involving a matter commenced by writ also supports the DPP’s interpretation. The purpose of such a provision (to avoid creditors from commencing claims when the winding up process is being conducted) would also lend itself to the interpretation that criminal proceedings are not intended to be prevented by the section.

Chief Industrial Magistrate Walker held that leave to proceed with the prosecution of Kenoss Contractors was not required and adjourned the Kenoss Contractors case to commence with the officer prosecution on 17 December 2014.

It is understood that at this point, the liquidators do not want to appear in the matter. It may be that no-one appears for Kenoss Contractors in the hearing that will commence on 17 December 2014.

This case includes a prosecution of both an organisation for allegedly failing to meet the primary health and safety duty and an officer for allegedly failing to exercise due diligence under the Work Health and Safety Act 2011 (ACT) which commenced on 1 January 2012. This case is ostensibly the first officer prosecution under the new harmonised WHS laws.
**NEW PRODUCTS**

**Multihazard protection fabric**
The Westex TrueComfort Knits fabric line combines the comfort of 100% cotton with certified, multihazard protection.

In addition to meeting the standards for both NFPA 70E HRC 2 and NFPA 2112, TrueComfort Knits is lightweight and guaranteed to retain its flame resistance for the life of the garment. With an Arc Thermal Protective Value (ATPV) of 8.9, the comfortable 5.5 oz fabric provides effective protection against arc flash and flash fire exposures. The S128 Interlock Knit is 186 gsm; T-shirt/Henley/Polo (100% Cotton) and width 150 cm. The S129 Rib Knit is 186 gsm; cuff/collar/balaclava/underwear (97% Cotton/3% Spandex) and width 122 cm.

*Charles Parsons & Co*
www.charlesparsons.com.au

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**Coverall for asbestos protection**
The DuPont Tyvek Classic Xpert is a chemical protection suit, Category III, Type 5-B and 6-B. The design and construction provides a high protection barrier against airborne particles, making it suitable for applications that require protection from exposure to asbestos.

In order to avoid cross-contamination (ie, when asbestos fibres are attached to a person’s skin or underwear and carried to uncontaminated places, released and then inhaled), protective coveralls must provide a high barrier against airborne particles (Category III, Type 5).

The EN ISO 13982-2: 2004 Standard (Type 5) measures Average Total Inward Leakage (TILa) of fine particles into suits. The Tyvek Classic Xpert provides 15 times better protection than the Type 5 standard.

Thanks to the non-woven structure of Tyvek, which forms a durable barrier against airborne particles and many water-based inorganic chemicals, barrier performance will remain intact even if the outer layers become abraded in places. It is also lightweight and soft, as well as permeable to both air and water vapour, providing a high level of wear comfort. The smooth surface and antistatic treatment prevents particles from adhering to the coverall.

Other features include: sleeve design prevents sleeves from riding up when working overhead; optimised three-piece hood design for tight fit around the face; elasticised face, wrists and ankles for tight fit; Tyvek zipper with flap for enhanced protection; and overall ergonomic shape for good fit and protection when moving.

*DuPont (Aust) Limited*
www.dupont.com.au

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**Thermal image camera in enclosure for hazardous locations**
The FLIR A310 ex is an ATEX-certified (Verification Certificate ZELM 12 ATEX 0485 X) thermal imaging camera mounted in an enclosure, which is suitable for use in hazardous locations. It can be installed in classification zones 1, 2, 21 and 22 and the certification comprises the whole system which includes the enclosure as well as all components inside, such as the thermal imaging camera, heater and integrated controller. The flameproof enclosure ‘d’ prevents any explosion transmission from the inside of the enclosure to the outside.

The thermal imaging camera is integrated in the device and comes with measurement functions such as spot, area and difference temperature measurement. It also has built-in alarm functions. The camera automatically sends analysis results, IR images, etc, as an email on schedule or at alarm. MPEG-4 streamed video output over ethernet shows live images on a PC. With a thermal sensitivity of < 50 mK, the camera captures fine image details and temperature difference information.

The device is also IP67 rated for dusty environments and comes with a heater which prevents fogging and freezing of the protection window. The integrated controller features several digital I/O channels and sensors for temperature, humidity and pressure. The I/O channels enable the user to switch on/off the camera and heater via remote control. Access is accomplished through an integrated web interface or Modbus TCP/IP. The integrated controller is equipped with two fibre-optic and two ethernet parts which enable a flexible network integration in star or ring topologies.

Applications include process monitoring, quality control and fire detection in potentially explosive locations.

*FLIR Systems Australia Pty Ltd*
www.flir.com.au
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The Model 5315 Cold Gun cools a two flute 3/8” carbide cutter on a CNC, increasing tool life by 50%. Ideal for diamond tooling.

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Cooling a roll with -7°C air keeps the material on the surface from bunching up, jamming or tearing. The metal surface transfers the cold temperature to the product.

**Tool Grinding**
Cold air eliminates heat cracking of carbide and tool edge burning during grinding and sharpening operations. Increased tool life between regrinds is the result.

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The Cold Gun increases tool life, tolerances and production rates by eliminating heat build up. It produces -7°C air from ordinary compressed air. The Cold Gun is ideal for dry machining or to replace messy mist systems. It eliminates the costly coolant purchase and disposal.

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GPO Box 2792, Darwin, NT 0801, Australia
Aspiration detection system in refrigeration facilities

Chiller, freezer and refrigeration facilities present some of the most challenging environments for reliable fire detection. Low temperatures, dry atmospheric conditions and humidity fog created by temperature changes during normal operation make an advanced technology solution necessary.

An increasing number of refrigeration facility managers are specifying next-generation aspiration smoke detection systems because of the rapid response and immunity to false alarms that can be achieved when protecting environmentally hostile installations. High sensitivity is essential for protecting food distribution facilities as the fire system must react quickly to even the smallest fire event because of contamination risks and potential scrap costs; it must also be resistant to the effects of non-fire-related stimuli.

One of the latest sites to adopt Honeywell’s FAAST aspiration system is BRI Groep’s DC Bleiswijk food distribution centre located in the Netherlands. The facility includes two 2°C chiller rooms and one -24°C freezer room. The refrigerated areas have high ceilings and large wall doors for easy access and high volume loading. When the doors are opened, considerable temperature fluctuations occur, resulting in a humidity fog that can be problematic for traditional fire detection devices. The DC Bleiswijk distribution centre operates 24/7; the previously installed point detector system could false alarm up to three times a day, causing unacceptable operational disruption.

Tim Checketts, sales manager for specialty fire detection products within Honeywell Life Safety’s Sensors business, said: “Facility managers in refrigeration facilities are under a lot of pressure to ensure that people are protected, stored goods are not contaminated and the facility operates with no interruptions - whilst reducing costs. BRI Groep required a solution that would meet these needs along with simplified installation and integration into an existing fire panel.

“In addition to providing fast detection with zero false alarms, the FAAST units replaced hundreds of point smoke detectors, delivering significant ongoing maintenance cost reductions. The PipeIQ software provided with FAAST also proved effective for designing the final system and providing ongoing system monitoring.”

Honeywell Ltd
www.honeywell.com

Women’s safety footwear

The Oliver PB 49 series of women’s safety footwear is designed to meet the safety needs of women in the workplace. Available in six different styles, including lace up, slip on, elastic sided, jogger and stylish cross strap, the series is designed as a woman’s fitting with added arch support. It is also comfortable, lightweight, breathable and with underfoot cushioning suitable for the workplaces where there are long hours spent either walking or standing.

The footwear has an antistatic sole and exceeds the SRC slip standards. Comfort is provided with the COMFORT-cushion Impact Absorption System with cellular urethane and PORON to protect the heel and ball of the foot, to reduce foot, leg and lower-back fatigue. The fully lined series is infused with AEGIS Microbe Shield solution which protects against odour, staining and deterioration caused by bacteria and other microorganisms. The Oliver comfort footbed has perforated air channels to promote natural airflow and is treated with AEGIS Microbe Shield solution to help maintain freshness.

Safety protection is provided by the NATUREform safety steel toe cap with a wide profile. The outer sole has good cut, slip and crack resistance and is also heat resistant to 300°C of surface contact. The hardwearing rubber outsole resists mineral and organic oils and acids. All styles in the series use water-resistant leathers and uppers.

The series meets Australian and New Zealand Standards (AS/NZS 2210.3.2009) and the International EN ISO and ASTM equivalent.

Oliver Footwear
www.oliver.com.au
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NEW PRODUCTS

Fall protection resource centre app
Capital Safety has launched its Resource & Education Centre App that provides instant access to tools that help promote best practice in fall protection and ensure safe work at heights.

It is available for tablet devices on Apple or Android platforms and was created to provide industry professionals with a singular access point to a host of height safety tools, product information and educational resources. The app has started with an e-catalogue which features over 1000 fall protection products laid out in over 500 interactive pages. The app can be downloaded by searching for: Capital Safety Resource Centre.

Capital Safety Group (Australia)
www.capitalsafety.com

Safety boots
The Aussie Jet-Stop safety boots are suitable for use with high-pressure blasters up to 500 bar (7300 psi). The boots are made from vulcanised rubber and provide safe, waterproof comfort for the operator. For maximum user protection, the boots come with steel toecaps and steel inserts in the sole to prevent puncturing by sharp objects.

Suitable for work in harsh environments, the boots are colour-coded to identify the areas of protection. The black regions, covering the talus, the lower shin as well as the toes and heal are CE Certified to be suitable for use with rotating water jet nozzle or flat angle nozzle sprays of up to 500 bar.

The soles of the boots have good grip to reduce risk of slipping. In particularly icy conditions, the boots can be fitted with spikes.

Available in sizes 8 through to 13½, the boots have an adjustable strap at upper calf level and are claimed to be easy to put on and take off.

Australian Pump Industries Pty Ltd
www.aussiepumps.com.au

Service portal
Wormald has launched Wormald Connect, a web-based portal that gives users 24-hour access to fire service calls and inspections data. It enables users to review servicing schedules and data online. Data can be stored on the portal for analysis or exported via an internet connection to enable further analysis or record keeping. If required, inspection summaries can be filtered to suit user requirements. The portal is suitable for businesses of any size and is convenient and easy to use with secure access.

Wormald (Tyco/Fire & Security)
www.wormald.com.au
NEW PRODUCTS

## Interlocking guard system

The Eichner Multifunctional Gate Box from Treotham Automation is an interlocking guard system designed for the protection of safety doors on machines and systems. It features an integrated lockout mechanism with optional escape release handle, and optional buttons and indicators.

The unit is easily mounted on frames, grilles or profiles, and the handle can be mounted level or rotated 90, 180, 270 degrees without disassembly. Once linked to machine controls, the opening of the access door will be prevented until the machine has safely stopped.

Start, enable, emergency stop and other functions can be added to the basic handle/lock module to turn it into a small control terminal. This enables the unit to be used for interlocking, guard locking, escape release and machine functions such as start/stop, emergency stop, etc.

The modular design means that additional features can be easily added at a later date. The optional escape release is intuitive to operate and enables persons to exit the danger area quickly and easily. When working in the restricted area, the bolt tongue can be locked open with up to three padlocks in the integrated lockout bar, preventing unintentional activation of the interlocking/guard locking.

The system complies with safety Level e in accordance with EN ISO 13849-1 or SIL3 in accordance with EN 62061, and EN 1088 for protection against tampering. An LED display provides information on system status.

*Treotham Automation Pty Ltd*

www.treotham.com.au

## SIL2 vibrating level fork switches

Emerson Process Management has expanded the application scope for its Rosemount 2120 range of vibrating fork point liquid level switches. The switch is now certified for SIL2 functional safety with NAMUR and 8/16 mA electronic outputs.

There are five plug-in electronic outputs available, providing a choice of switching functions. The SIL2 certification extends the time between proof tests and allows users to avoid extra shutdowns for safety testing.

The range has been approved for marine applications, such as oil and ballast control and HFO blending by the American Bureau of Shipping (ABS).

The switch also offers an expanded choice of process connections. In addition to the 50.8 mm NPT process connection, the switch is available with Mobrey A and G flanges enabling compatibility with mechanical float switch process connections.

The switch is suitable for high- and low-level alarm and pump control duties in a range of process and marine applications.

*Emerson Process Management*

www.ap.emersonprocess.com

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Our AS/NZS1337.6:2012 certified prescription safety glasses come complete with frames, lenses, lens cloth, case & certification. Other companies might consider these optional extras and charge additionally. So if you’re looking for AS/NZS1337.6:2012 certified prescription safety glasses without the hidden extras (from just $199 for one pair), you simply can’t look past Specsavers.

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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: SMKH05349 Issued 30 May 2012.

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www.SafetySolutions.net.au

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CASE STUDY

Hand protection for degreasers

Many degreasers are toxic, so Ansell advises that workers should make sure their hands are protected.

Oils and degreasers are a common sight in any industry where removal of oil and lubricants from metal parts forms part of its manufacturing or processing operations.

While most people understand that oil is a chemical that requires hand protection, it also needs to be recognised that many degreasing agents may be toxic and any contact with skin should be avoided.

Degreasers that remove lubricants and machine residues from components are chemicals that clean metal by washing dirt, grease and oil from surfaces. Oil-based degreasers are often toxic and may contain any of the thousands of dangerous chemicals found in traditional cleaners and degreasers.

More common chemicals used in degreasers include methyl ethyl ketone, acetone, toluene, glycol ethers and other fluorinated and chlorinated solvents. Even where non-toxic degreasers are used, degreasers mixed with the material removed from metals often contain hazardous chemicals and need to be treated the same way as any other toxic substance.

"Maintaining a positive grip on slippery components due to lubrication coating is also important in terms of safety and productivity," said Ansell marketing manager David Nicholls. He said the AlphaTec 58-430/435 gloves incorporate Ansell Grip Technology to enable users to handle wet or oily objects with less grip force and more control. This combination of chemical resistance and grip, together with flexibility and dexterity, makes the glove suitable for working with chemicals.

"The grip technology ensures that the coating polymer does not penetrate the liner during manufacture. The coating is therefore consistent and sound, significantly reducing the likelihood of chemical leakage onto the skin," Nicholls added.

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Safety solutions

AUGUST/SEPTEMBER 2014

Looking for an emergency stop pull rope switch that goes the extra distance?

OsiSense XY2... the simple, user-friendly safety solution.

The OsiSense XY2 Pull Rope Switch is the perfect point-to-point safety solution. With a pull rope distance of up to 30 metres and a variety of optional accessories, safety between people and moving equipment doesn’t get simpler.

Standard features include:
> metal housing with a stainless steel face
> 3 contacts (2N/C, 1N/O)
> integrated turnbuckle for easy cable tensioning
> viewing window for ease of tension adjustment
> IP65 degree of protection.

Easy to install and set up, they are ideal for woodworking machines, conveyor systems, roller mills and printing presses.

Discover more, go to our website and subscribe to our FREE newsletter.

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Safety app uses wearable technology

Developer of the safety inspection app iAuditor, SafetyCulture is among the first developers in Australia to strap on the Samsung and LG smartwatches. The latest in wearable technology, these gadgets run on Google’s “Android Wear” platform that was announced in June this year, at Google’s annual developer conference.

Android wearables bring the reality of hands-free safety inspections closer. According to the company, an obvious and practical application of smartwatches in workplace safety is with workers operating at heights. The ability to conduct an inspection on a smartwatch means the operator is free to use both hands to climb and assess material objects, and the device itself is not at risk of being dropped on unsuspecting workers below.

Safety Culture
www.safetyculture.com.au

Safety hinge switches

Suitable for the position monitoring of protection doors on design-oriented machines, the Tesk series is the fourth generation of Schmersal safety hinge switches. With this series, the switching angle (which means the hinge angle at which the safety-related signal is initiated) is freely adjustable over the whole of the working range. The user can select different contact configurations with up to four contacts and the option of cable connection or plug connection.

The device’s construction allows it to be mounted on the hinge side of the rotating guard. This replaces a conventional hinge and at the same time takes over monitoring the position of the guard.

Safety hinge switches provide high protection against tampering as the safety switch is not visible to the operator (as it is an integral part of the guard). Additionally, the machine builders benefit because their machines and enclosures can be constructed with the commercially available aluminium profile systems. Double swing doors can also be monitored using this hinge switch.

Control Logic Pty Ltd
www.control-logic.com.au
Queensland Nickel illustrates the challenges large industrial sites have when protecting their staff from hazardous airborne contaminants in the workplace.

Based in the north-east of Australia, the refinery employs 1000 people and is a global leader in the production of high-quality nickel and cobalt. The nickel and cobalt-bearing laterite ores are dried, ground, roasted and leached before being separated for sale to a global market. Despite having system controls in place, the extraction process generates rogue nickel dust emissions of soluble and insoluble nickel forms with differing exposure standards requiring controls around personal respiratory protection.

Following an internal safety review, Queensland Nickel’s occupational hygienist examined a broad range of respiratory options with a focus on high levels of protection. Trials included passive P3 half masks through to powered air purifying respirators including loose- and tight-fitting headtops.

The challenge
The challenge at the site was maintaining compliance and productivity for staff wearing personal respiratory protection due to demanding requirements:

- **Long periods of wear and flexibility**: Operators and maintenance staff needed protection for 6 hours (some up to 8 hours) on a daily basis wearing respiratory protection equipment (RPE), while managers and engineers required RPE for short periods of time but needed ease of donning/doffing as they moved through the contaminated areas on-site.

- **Mobility and high-exertion tasks**: The plant covers an area the size of a football field and has a high point of six levels up that can be reached via stairways. The physical layout and the vast network of kilns, conveyors and elevators needing routine checks, adjustments and sampling meant operators are highly active and require mobility around the equipment.

- **Extreme working temperatures**: Industrial rotating kilns contribute to temperatures in and around the plant of 45°C.

The solution
Negative pressure masks caused staff to struggle with acute discomfort from over-tightened straps and heat under the mask when worn for several hours. Many of the belt-mounted positive pressure systems proved too restrictive for normal day-to-day tasks and were too bulky and difficult to carry when operating machinery or temporarily moving in and out of contaminated areas.

“My maintenance and operating teams complained that the battery packs made driving forklifts difficult and head tops limited their head movement, which is important when running equipment checks,” said Matthew Topp, QNI manager - Final Nickel.

CleanSpace Respirators have been at Queensland Nickel for over a year and are worn by staff every day. The original trial of CleanSpace found it suited the team across the range of tasks, supporting staff to carry out the daily job with ease.

The result
The powered nature of the CleanSpace ensured the high level of protection Queensland Nickel management were after and delivered fresh air to the wearer, thus reducing risks of heat stress and respirator fatigue.

“The staff reported good battery life, comfort and easy transition from their traditional mask to the CleanSpace. The built-in battery and compact neck-mounted unit meant it was easy to carry around and clip on before entering controlled areas,” explained Matthew Topp.

Over time, Queensland Nickel noted additional benefits in using the CleanSpace Respirator such as:

- Long filter life and peak load filter alarm (which alerts the wearer when to change filters ensuring the full life is achieved from each filter);
- Ease to clean the mask and low maintenance on the unit;
- Toughness and durability; and
- Even with daily use and long wear, the CleanSpace kits remain in good condition.

Importantly, Queensland Nickel has seen no drop-off and consistent compliance with staff wearing CleanSpace. Topp contributes this to the additional comfort of fresh air and on-demand air flow when staff have high-exertion work or working in hot temperatures. Since issuing CleanSpace to its staff, other sites that experienced high dust loads and developed blocked half masks have adopted CleanSpace.

PAPtec Australia Pty Ltd

www.paptec.com.au
The Ultimate Safety Glove from Australian Safety Wholesalers is its highest risk-rated safety glove.

The nitrile-dipped, knitted glove uses NBR (nitrile butadiene rubber) as the top coat to provide wearers with improved grip in oily environments. This NBR coating provides a liquid barrier to the liner.

Independently tested to EN388, the glove has a maximum rating across all risk indices of 4544. That is Level 4 for abrasion, Level 5 for cut protection, Level 4 for tear and Level 4 for puncture.

The glove is suitable for use in just about any industry including engineering, construction, mining, manual works, precision handling, automotive, oil and gas and manufacturing.

Using the micro-ventilated nitrile coating, the glove is comfortable to wear all day and provides good flexibility for precision works. It can be laundered and is re-usable.

The liner is made from a robust, 13-gauge fabric and it is claimed to outlast liners made with cotton or nylon. The durability of the glove is claimed to surpass traditional leather gloves.

Australian Safety Wholesalers
www.australiansafetywholesalers.com

The ACOT500 3124 rotating beacon has been added to the VisionSafe range. It has a self-tensioning silicon direct drive which makes the unit quiet and consistent in performance.

The beacon also has a low-profile UV-stabilised polycarbonate lens that has an interlocking thread and added O-ring, making it virtually water and dust tight. It meets the IP65 International Protection Standards for dust and water resistance and has an operating temperature range from -20 to 50°C. Using the latest in reflector design, it has a squat-style reflector which has deep, aggressively curved vertical and horizontal angles allowing its H1 halogen globe to project light much further than other models.

The beacon comes in both hard-wire and magnetic-base versions, with a pole-mount adapter also available. The magnetic-base version features ACOT500’s standard extra-long 4 m curled lead, with a pistol grip plug complete with fuse. This plug also incorporates an on/off switch with an LED to alert the operator.

Stocked in both 12 and 24 VDC versions, the unit can also be quickly converted from 12 to 24 VDC by simply changing to a 24 VDC globe, and vice versa.

Vision Safe (PPE)
www.visionsafe.com.au

The AlcoMeasure WM - LIVE wall-mounted alcohol breathalyser is used for employee/contractor management of breath test results. Using this model, breath test results are automatically emailed from the breathalyser after identifying the user via keypad, iButton, swipe or proximity card, etc. The auto-generated emails include over-site-limits results and a weekly or daily data log for all breath tests.

The Australian-made unit has the ability to integrate with most time and attendance or employee/contractor management systems. Providing quick results, it is designed to suit applications with a large workforce where health and safety is of a major concern, or where legislation applies to ensure an alcohol-free workplace. It is also suitable for mining, rail and transport industries that blanket test all employees.

The wall-mounted alcohol breathalyser is Australian Standard AS3547 certified and auto-calibrating. Other features include: fast testing times (4 s for 0.000 results, 7 s for ready again); internally stored database of staff/contractors; and individual ID number can be entered via existing or supplied keypad, swipe card, iButton, etc.

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**Water-based parts washing system**

The Torrent 400 water-based parts washing system is designed to clean machine parts safely, with a low impact on water resources and the environment. Suitable for all types of metals, the system combines heat, chemistry and high pressure to clean machine parts of greases and oils. It features a closable lid with special gloves attached, so all parts are enclosed when cleaning. As the unit is fully integrated and enclosed, it protects users from direct contact with the cleaning solution. The system is quick, easy to use and eliminates exposure to harmful chemicals. Parts are simply loaded from the front of the machine. The lid is then closed, and through the integrated gloves, the user can clean the parts using a foot-activated, high-pressure jet nozzle and water-based detergent. Once cleaned and dried, the part is then ready for use. In addition to workshops and manufacturers, the unit is suitable for automotive service centres and the marine, construction, transportation and mining industries.

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**Verification of competency app**

MyVOC is an easy-to-use tool that allows organisations to conduct their own Verifications of Competency for training by partnering with an RTO. Provided they have a competent assessor, they will be able to issue their own competency-based certificates from their workplace.

The organisation nominates the tasks their workers will undertake and makes a record of previous training and current qualifications in order to identify the training required. It then manages the training to completion, including the VOC process.

The supervisor conducts and records the assessment using the app, then uploads the results to the Learning Management System. The assessment consists of quizzes, VOC tasks and acknowledgement questions. To ensure competence, video evidence of the student completing the task is captured. VOC provides knowledge checks as guidance in the process.

The app enables organisations to complete verifications of competency while continuing work, preventing the downtime that would occur otherwise. It provides auditable outcomes, allowing for consistent assessment. Suitable for any size of organisation, it can be used across all industries.

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**Hearing protection earplugs**

The No Noise hearing protection earplugs are designed to allow the user to hear a safe amount of noise that needs to be heard while blocking out damaging noise.

Using a patented, frequency-selective, ceramic filter embedded in the earplug, the hearing protection technology allows the user to hear normal conversation and relevant background sounds while blocking out harmful background noise.

The venturi-shaped channel running through the centre of the filter is designed to absorb sound waves differently from other filters. The ear plugs allow sound up to 80 dB (decibels) or ‘voice strength’ to pass almost unobstructed into the ear. Only sounds above 80 dB will be dampened by the filter.

There are eight different types of earplugs available in the range, each with its own precision filter for specific applications. For instance, the Motorsport earplugs dampen between 15 dB of low-frequency sounds such as engine noise and 30 dB of high-frequency sounds such as wind noise.

Other features include: no occlusion (muffling) effect, silicone-free, hypoallergenic thermoplastic, comfortable, re-usable, fits all ages and includes an aluminium storage capsule.

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The app enables organisations to complete verifications of competency while continuing work, preventing the downtime that would occur otherwise. It provides auditable outcomes, allowing for consistent assessment. Suitable for any size of organisation, it can be used across all industries.

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The No Noise hearing protection earplugs are designed to allow the user to hear a safe amount of noise that needs to be heard while blocking out damaging noise.

Using a patented, frequency-selective, ceramic filter embedded in the earplug, the hearing protection technology allows the user to hear normal conversation and relevant background sounds while blocking out harmful background noise.

The venturi-shaped channel running through the centre of the filter is designed to absorb sound waves differently from other filters. The ear plugs allow sound up to 80 dB (decibels) or ‘voice strength’ to pass almost unobstructed into the ear. Only sounds above 80 dB will be dampened by the filter.

There are eight different types of earplugs available in the range, each with its own precision filter for specific applications. For instance, the Motorsport earplugs dampen between 15 dB of low-frequency sounds such as engine noise and 30 dB of high-frequency sounds such as wind noise.

Other features include: no occlusion (muffling) effect, silicone-free, hypoallergenic thermoplastic, comfortable, re-usable, fits all ages and includes an aluminium storage capsule.

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No Noise
www.nonoise-earplugs.com.au
REDUCING ACCIDENTS IN AUSTRALIA’S TOUGHEST WORKPLACES

AUSTRALIAN MADE FOR AUSTRALIA’S

- Contractors
- Electricians
- HVAC “Professionals”

ALUMINIUM FOLDING PLATFORM LADDER

Platform Heights From 0.61m - 3.4m

FIBREGLASS FOLDING PLATFORM LADDER (non-conductive)

Platform Heights From 0.61m - 2.9m

SAFETY GATES AVAILABLE
The Elide 1000 fire extinguishing ball is a patented, self-activating fire extinguishing solution that is easy to use and suitable for manual or static operation.

Compact (147 mm diameter) and lightweight (1.3 kg), the device can provide 24/7 stand-by automatic fire protection by positioning it close to a potential source of the fire. Unlike other fire extinguishing products, the fire extinguishing ball will activate automatically when it comes into contact with the fire, even if no-one is present. The device can also be used manually by simply tossing or rolling it into a fire from a safe distance. The device will only activate when it comes in contact with a naked flame. Suitable for all four classes of fire - A, B, C and E - the fire extinguishing ball can be used to complement existing fire protection equipment.

Applications include: where flammable liquids are stored, electrical switchboards, communications rooms, roof cavities, cars, boats, caravans, offices, public transport, etc.

Other features and benefits include: no training is required; non-irritable if contacted with human skin and eyes; audible alarm of 101-128 decibels sounds when activated; environmentally friendly; and no annual maintenance or service is required for the life of the product.

Elide Fire Ball Australia P/L
www.elidefire.com.au

Fire extinguishing ball

Emona Instruments has released the PAC3760 DL data logging appliance tester and test tag printing kit. The kit stores test results that can be downloaded to any PC spreadsheet or database program. No special software is required to generate an electronic logbook, which can replace handwritten logbooks. It also connects to the battery-powered PAC-OPT printer to print test tags. The printer has simple ‘plug-n-print’ operation with no time consuming set-up required.

Based on the popular PAC3760 series of portable appliance testers, the DL version builds on the features. It conducts earth bond, insulation and polarity tests, as well as leakage current tests for class I and class II appliances and leads, and carries out trip time tests of 10 and 30 mA portable and fixed RCDs with the in-built isolation transformer. When used in conjunction with the optional PAC-TPL 3 phase adaptor, the device can also carry out three-phase leakage testing of 10, 16, 20 and 32 A three-phase appliances. It operates under mains or battery power.

The unit is designed with simple nine-button operation: class I, class II, leakage, 10 mA RCD, 30 mA RCD and three-phase test buttons. It also includes buttons to save results, recall/download results and print test tag. Results are displayed as a pass or fail, as well as actual readings. Once the user selects the required test, the tester conducts an automatic sequence of tests, eliminating the need for complicated on-screen menus. Other features include automatic sensing of IEC or extension leads, which adds a polarity test to the sequence and automatic detection of whether the appliance is switched ‘on’. The device is suitable for testing and tagging applications requiring compliance with AS/NZS3760.

Emona Instruments Pty Ltd
www.emona.com.au

Test and tag printing kit

Australian invention Rapid Test is an RCD testing device that has been designed to help improve ongoing WHS compliance, business efficiencies and productivity.

The system has the ability to test from one to hundreds of RCDs - all without plugging directly into a power circuit as there is no need to locate and test individual circuits from the field. This is claimed to make RCD testing up to 180 times faster than other methods used to test RCDs. It works via a wireless application on a tablet device; the master unit has Wi-Fi capabilities and communicates with the tablet. As testing is completed using the tablet application, the application captures all the data required for compliance requirements. At the conclusion of testing, this data is uploaded via the cloud to a data portal via the internet (4G or wireless) connection where it can be used to monitor and track all of the RCD compliance needs online.

Rapid Test Systems
www.rapidtestsystems.com.au

RCD testing device
Success through Training

Become a Certified Machine Safety Expert (CMSE) Today

- Safety Training
- Safety Relays and Safety PLCs
- Risk Assessments and Validations
- Safety Sensors and Safety interlocks
- Engineering and Systems Integration
- Safe Drives and Light Curtains
**Customised online management system**

FINAO operations and safety management systems allow users to manage competencies, track compliance, increase communication and ensure accountability.

Each system is designed and built to user-specific business and WHS requirements, with customised system modules selected by the user. Existing modules include: project management, contractor management, employee management, audit management, incident management, risk management, timesheets and timesheet management, worker tracking, lone worker SMS systems, P&E management, resource management, Permit-to-Work, document management, environmental reporting and a range of online forms.

The systems are cloud-hosted and can be accessed from any internet-connected device. The system is responsive to devices such as desktops, tablets/pads or smartphones. There are no additional software or hardware requirements.

**FINAO Operations Pty Ltd**  

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**Tagline extension arm**

Tag-Ex is a permanently or temporarily attached mechanical arm used to protect riggers, dogman and any other workers when using taglines that are attached to suspended loads. The product is attached to any lifting device or object that has the potential to be lifted.

It is designed to keep the tagline away from the load when it is suspended so the worker never has to be in a position where the load could fall or collide with them. It also allows the worker to handle and manipulate the load while suspended and keep it at a safe distance. The product is suitable for mine sites, construction sites, refineries, industrial workshops and maintenance applications.

**Rising Fast Pty Ltd**  
[www.risingfast.net](http://www.risingfast.net)

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**Sun protection**

The Hamilton Sunscreen Active Family SPF 50+ is a very high protection sunscreen range and has an improved dry touch formulation that is fast absorbing and sweat resistant.

Suitable for outdoor workers, the sunscreen provides UVA and UVB broad spectrum protection, is 4h water resistant and can be used on both the face and body.

The range includes a lotion, a non-greasy clear spray that is easy to apply and fast to dry, and a sensitive skin version that is free from fragrance, lanolin and colour to reduce potential allergies.

It is available from October 2014.

**Key Pharmaceuticals**  

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**Young worker safety program**

Young workers can bring great energy and enthusiasm to the workplace, but they can also bring about specific challenges. Youthsafe works with businesses to help deliver improved safety performance with specific young worker-related issues. It provides employers and supervisors with tools to help understand their young workers in order to keep them safe.

Youthsafe has a number of services and products designed to address young worker safety. The Custom Solutions is a fit-for-purpose package consisting of up to four components including: diagnostic analysis; program design; program delivery; and follow-up and refresher. The Ready-made Solutions comprise a suite of training modules for supervisors and/or young workers, covering the major young worker safety concerns. These can be mixed and matched to suit individual business requirements. Other products include fact sheets, workbooks, educational DVDs and online interactive support materials, all of which are designed to assist supervisors, managers and young workers.

**Youthsafe**  
[http://www.youthsafe.org](http://www.youthsafe.org)
DG eMap is a web-based, automated dangerous goods transport compliance system. The system is designed to reduce the risk and simplify the process of transporting dangerous goods. It provides critical information to ensure every load is safe and compliant.

The system is accessible 24/7 and contains the information required to ensure that every load dispatched day or night is compliant with the current dangerous goods code. It provides an automatic compatibility checker, with notification for incompatible loads and segregation methods to manage incompatible loads. It also provides information about placarding with an automatic aggregate quantity calculation and thresholds, as well as the specific safety and PPE equipment required for each load.

**HSRM Pty Ltd**
www.hsrml.com.au

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The KBS WorkGear Orange Nitrile gloves have been approved for military use in Australia and New Zealand.

Designed for heavy-duty trade and industry use, the gloves have a high visual contrast surface to make it easy to detect most contaminants and prevent cross contamination in the work environment.

The gloves are suitable for use in direct sunlight and feature a low-sweat technology to maximise comfort for the wearer. The gloves work as a barrier from oils, fuels, solvents, cleaners and chemicals. As they are latex and vinyl free, they are suitable for sensitive skin types.

**The Glove Company Pty Ltd**
www.theglovecompany.com.au

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**Nitrile disposable gloves**

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**Web-based dangerous goods transport compliance system**

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**safety in action**

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**safety work boots designed by women... for women**

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**comfortable • compliant • functional • stylish**

www.shewear.com.au

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www.SafetySolutions.net.au
Synthetic foam glove

The synthetic foam glove (model no. GLV2050HVY) is made of lightweight lint-free apparel-grade nylon, lycra liner and coated synthetic material. The glove is suitable for assembly, automotive work, material handling, printing, gardening, general maintenance, etc. The glove liner can be knitted by a 15- or 18-gauge machine and is seamless and breathable. The synthetic foam coating palm provides a good level of comfort, abrasion resistance, oil resistance, sensitivity and dexterity.

Greatguard Safety Pty Ltd
www.greatguardsafety.com.au

Emergency fixtures

Bradley has introduced the improved Halo eyewash and Spintec drench shower, which are suitable for use in emergency washdown applications. The eyewash is now available in stainless steel that can withstand harsh, chemical environments. The stainless steel spray head is electropolished to provide an extra layer of corrosion-resistant protection. A variety of standard models are available including pedestal, wall-mount and combination units. The drench shower incorporates the latest fluid-dynamics technology providing a consistent distribution of water for effective removal of contaminants. The spinning motion of the water in the shower creates an optimal spray pattern and the self-draining design minimises the risk of bacteria growth.

Bradley Australia
www.bradleyaustralia.com

Low-carb rehydration formula

The Endura Rehydration Low Carb Fuel is a low-carb electrolyte formula that is designed to assist with rehydration. The formula contains sodium and potassium to assist rehydration and Meta Mag Magnesium to help prevent muscle cramps and spasms and relieve aches and pain.

With less than 1.3 g of carbs per dose, the formula is suitable for the calorie conscious or those on specific sports conditioning programs. It comes in four flavours - coconut, lemon lime, tropical punch and grapeberry.

Health World Limited
www.healthworld.com.au

Vacuumised sweeper

The Battery Rider vacuumised sweeper has a 1200 mm sweeper path and 120 L debris hopper. The rugged, industrial-quality units are 36 V, powered by a 6 x 6 V battery pack that provides over 4 h run time between charges. Suitable for harsh applications and both indoor and outdoor sweeping, the vacuum function can control fine dust particles and the main broom drive motor will enable heavy debris such as sand, pebbles and rocks to be swept first pass into the steel hopper. Applications include the food industry, education system, shopping centres, transport yard and logistics warehouses.

Sweepers Australia
www.sweepersaustralia.com.au

Custom hearing protection

As a substitution to disposable earplugs or conventional earmuffs, the Cotral Qeos provides a solution to occupational noise-induced hearing loss (OHNIL). The technology is 3D custom manufactured based on the unique aural impression of each individual, which makes the device comfortable and easy to use. It is also hygienic, hypoallergenic and features AS/NZS 1270:2002-compliant acoustic filters that enable good communication while providing protection from noise exposure.

The Qeos Agro version is fitted with a metal bead for gate detection. It also has a vibrant blue colour, ergonomic handles and an optional cord with clip, making it suitable for food-processing compliance requirements.

Cotral Technology
www.cotraltechnology.com

First aid app

The First Aid Kits Australia workplace safety app can provide businesses of all sizes with essential features to enhance workplace safety. The app can conduct audits, make orders quickly and track the availability and location of first aid kits.

Key features include: immediate access to emergency numbers; fingertip access to first aid information; audit, manage and replenish first aid kits; receive friendly reminders when products in the first aid kits are approaching expiry; manage product recalls; and record and report workplace safety incidents.

First Aid Kits Australia
www.firstaidkitsaustralia.com.au
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.

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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)
Attention service focussed professionals!

Are you looking to boost profits, drive efficiencies and improve customer service?

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Situated in Melbourne’s Docklands, Etihad Stadium is a $460 million, multipurpose facility designed to cater for major sporting and entertainment events, as well as social, business and private functions. It has a seating capacity of 53,500 and capacity for 2000 patrons to stand. Since opening in March 2000, more than 30 million people have passed through the venue’s gates.

With the stadium receiving such a high level of foot traffic, emergency escape lighting is of utmost importance, and the quality and performance of the emergency lighting is critical from a safety viewpoint. This lighting is essential to ensure safe egress by building occupants when the normal lighting fails, including when this arises during a fire or other crisis situations. The lighting must provide adequate illumination and signage to allow people to avoid obstacles and move safely to the nearest exit. Its installation is prescribed by the National Construction Code and also addressed in the three parts of AS/NZ 2293.

Emergency and exit lighting also represents a major ongoing maintenance cost for the stadium.

In 2012, the stadium’s facility manager, Honeywell, considered that the exit and emergency lighting fittings at the stadium were nearing end of life and becoming more expensive to maintain as major components were requiring replacing.

Following the consideration of various options, Honeywell selected the Clevertronics L10 Lithium powered emergency lighting range and installed 2756 L10 exit and emergency lighting fittings as part of a Clevertronics Zoneworks computer monitoring system in August 2013.

In the event of a power failure, the emergency power supply for emergency light fittings is by way of batteries contained in each exit sign and emergency light fitting. Until recently, lead acid, nickel metal hydride (NiMH) or nickel cadmium (NiCd) offered the only solution for emergency lighting batteries. However, the shortcomings of this solution included: relatively short life leading to high maintenance costs and a sustainability issue as they contain toxic heavy-metal contaminants. As well as battery life, two other elements, namely lamp life and circuitry life, are key determinants for maintenance-free time periods. Clevertronics’ L10 range addresses all three, incorporating 100,000-hour (11-year) LEDs and enhanced circuitry design together with the latest technology in lithium iron phosphate (LFP) batteries. The maintenance-free design life of the range is claimed to be at least twice that of the current best NiCd products. Also, the batteries used in the L10 range are claimed to contain no toxic heavy metals, contaminants or carcinogens.

After a 12-month staged upgrade that was specifically focused on emergency lighting, all emergency and exit light fittings throughout Etihad Stadium were replaced with the L10 range.

Honeywell Victoria TAM Operations Manager Matthew Parisi estimates that the stadium will have ongoing annual savings of around $129,000 pa in maintenance and electricity costs as opposed to if they had maintained their previous NiCd emergency lighting fittings, with a greater yearly saving over the first seven years of operation.

Parisi said: “Through switching from NiCd fittings to the Zoneworks L10 range, we estimate that the total energy and maintenance costs will drop from $1,083,830 to $178,867 over a seven-year period, which is an 83.5% saving. The switch will also ensure an energy saving of approximately 70%, equating to a reduction in carbon dioxide emissions of 932 tonnes over the same seven-year period, which is quite remarkable.”

Clevertronics Pty Ltd
www.clevertronics.com.au
University of Canberra PhD candidate Anthony Walker is studying what physical attributes make firefighters work better in extremely hot conditions and how to maximise their recovery once the fire has been put out. Walker, who has been a firefighter for nine years, is exploring the acute and chronic effects of heat exposure on the physiology of firefighters.

“Firefighters are constantly being exposed to extreme heat, wearing the same gear regardless of whether they are fighting a house fire or rescuing casualties from a crushed vehicle,” Walker said. “And although firefighters are exposed to different types of heat, such as hot air and contact with hot surfaces or the heat produced by their bodies during the emergency operations, they rarely cool down properly.”

Determined to change and improve current work practices, Walker has been conducting comprehensive tests at an emergency services training facility in the south of Canberra during the past year.

In partnership with the ACT’s Emergency Services Agency and the ACT Government, Walker is examining firefighters’ performance during simulated firefighting tasks to measure individual responses to working in the heat, including increased thermal strain.

The assessments include a blood test conducted at the end of the exercise that will allow an appreciation of acute and chronic inflammatory responses.

The aim of these tests is to understand the toll that repeated exposure to high-heat environments places on individual firefighters and to recommend changes to work practices to reduce any harmful impacts from their working environment.

This research builds on Walker’s earlier work on specific practices that help firefighters cool down faster after facing heat-stress conditions.

His previous research showed that being in cold water for 15 minutes and eating an icy slushy are effective in reducing the core temperature of firefighters following a simulated firefighting task in a very hot environment.

“For years, firefighters have cooled down by drinking a bottle of water and sitting in the shade,” Walker said. “When you have been exposed to temperatures in excess of 100° F while carrying up to 50 kilos of protective gear and equipment, that is not going to cut it.

“We were able to demonstrate that cooling down procedures are just as important as fitness regimes,” he said. “We now need to put all this evidence together to improve recovery practices that will allow firefighters to get back in the job quicker.”

His research, he said, could have applications in other heat-exposed activities such as defence, sport and any other industrial setting where heat is prevalent.

“Firefighters are only one of many professions that see workers constantly exposed to extreme heat. People like miners, farmers and emergency workers working in extreme environmental conditions will also benefit from the findings in this study because its evidence is increasingly pointing to the links between heat-related inflammation and chronic illness and work-related depression.”

**NEW PRODUCTS**

**Lanyard for tools**

Technique Solutions has released the comprehensive range of Python tool lanyards and tethers that has been developed for tool drop prevention. The range is suitable for virtually any tool including hard hats, radios, hand tools and even tools weighing up to 36 kg.

Designed to assist companies comply with dropped object legislation, the range is third-party tested and certified. The coil lanyard option features a nylon-coated, stainless steel braid for good longevity and the screw gate carabiner option is designed to prevent accidental opening. Options for use range from holsters, belts, harnesses to tool pouches.

The range is also available with resistance to heat and sharp objects.

*Technique Solutions Pty Ltd*

NEW HEIGHT SAFETY APP

DOWNLOAD THE NEW CAPITAL SAFETY RESOURCE CENTRE APP

The new resource centre app was created to provide industry professionals with a singular access point to a host of height safety tools, product information and educational resources.

THE APP FEATURES OUR NEW COMPREHENSIVE eCATALOGUE

- The new comprehensive eCatalogue contains over 500 pages of fall protection products
- Interactive features allow you to explore products in depth & share with others
- Fast-find navigation makes browsing a breeze
- Once downloaded, any tool or catalogue inside the app is even available if you’re offline

YOU COULD WIN AN iPAD AIR BY DOWNLOADING OUR NEW APP & eCATALOGUE

Simply scan the QR code or visit our website


Anti-slip plywood
The Big River Anti-Slip Plywood product features a slip-resistant coating designed to provide protection against injury on both indoor and outdoor workplace platforms, ramps, walkways and floors. It features a textured paint finish with crushed glass and the reverse side of the panel has a phenolic film for moisture protection in damp, wet and external areas.

The plywood has been tested for slip resistance in both wet and dry scenarios - both delivered results at the highest slip resistance classification. Manufactured locally in Grafton, New South Wales, the Anti-Slip Plywood has a high-strength F17 structural plywood certification to Australian Standard AS2269 together with the maximum rating of PS(V) classification in the slip-resistance testing of pedestrian surfaces in wet conditions and D1 in dry conditions.

Suitable for both temporary and permanent flooring and ramps, the product has applications on construction sites, building areas, hospitality (kitchen), aged care facilities, hospitals and medical environments. The plywood is also suitable for high-risk areas including cool rooms/freezers, dishwashing areas, cooking areas and doors leading to and from the kitchen where changes in floor surfaces occur. Other features include: pressure cleanable and chain of custody (AFS/PEFC) certified.

Available in a range of sizes and thicknesses, the product can also be custom made to size and scarf jointed if larger sheets are required. It comes in three standard colours: safety yellow, black and grey. Customised colours are also available, dependent on volume.

Big River Group
www.bigrivergroup.com.au

Workplace OHS management software
At Work Software has released four new software products (Audits At Work, Chem At Work, Risk At Work and Training At Work), as well as a new version of its OHS At Work software.

The Audits At Work software provides facilities to manage, undertake and report on all types of internal and external audits (e.g., operational, chemical, financial, etc.) and is used to ensure that follow-up actions are completed. Chem At Work allows the user to maintain a chemical register, assess risk levels, keep safety data sheets (SDS) up to date and give all staff access to the SDSs relevant to them.

Risk At Work provides facilities to manage, analyse and report on all types of risk (e.g., WHS, environment, chemical, financial, operational, reputational, etc.). Training At Work provides facilities to manage and report on the training of personnel, the certifications and licences they hold, and the competencies they have achieved. It provides reminders for training events and for required certification/competency renewals.

OHS At Work now provides facilities to manage, analyse and report on: workplace audits and inspections, all types of risks and hazards, chemicals, incidents and any corresponding workers compensation claims, corrective actions, rehabilitation, health and medical details, and training, certification and competency.

All the features of Audits At Work, Chem At Work, Risk At Work and Training At Work are also provided in OHS At Work.

At Work Software Pty Ltd
www.atworksoftware.com

Portable powered work platform
The JLG Liftpod portable powered lift platform provides a secured enclosed platform that is suitable for working at heights of up to 4.3 m. It provides 360° access that allows the user to use both hands while working at height and is claimed to be 70% more stable than a similar-sized platform ladder.

The system is powered by a cordless-drill-style power pack, which will lift and lower the platform 20 times on a fully charged battery.

A fast charger and two batteries are supplied with the system.

Improve Height Safety
www.improveheightsafety.com.au

NEW PRODUCTS
Revealing the sources of air pollution

It is now possible to not only determine the source of pollution via a chemical composition fingerprint, but to also quantify that source’s total contribution of fine particles in a specific location. In short, individual polluters can be identified and the fine particles originating from those polluters can be measured.

As atmospheric fine particle pollution has significant impacts on our lives, there has been significant progress over the last decade to better identify its sources and hold polluters accountable. Increased computing power with new algorithms that handle big data sets has played an important role in advancing these studies.

Fine particles in our atmosphere can travel hundreds of kilometres every day. Their monitoring is crucial as they have significant impact on both human health and the environment. Over the last decade, nuclear techniques for studying fine particles in the atmosphere have improved significantly, moving from simply analysing their chemical composition to combining meteorological data, such as wind patterns and trajectory with statistical modelling, to define where the pollution actually came from.

Over more than a decade, David Cohen and his team at ANSTO have collected samples in the Richmond area of western Sydney. By using these combinatory techniques of analysing the particles’ chemical composition and taking account of meteorological data with statistical modelling, they are able to quantify the effects of air pollution.

According to Cohen, there are a number of key issues why the study of fine particles is so important. They are absorbed deeply into the lungs and can have health impacts; they can affect visibility; they can be transported long distances; and they have also been associated with climate change. His team’s demonstration project has found that up to half of the total sulfate air pollution in the greater Sydney region can be attributed to emissions from NSW’s eight coal-fired power stations. Despite being located many kilometres outside of the greater Sydney metropolitan area, these coal-fired power stations have a significant impact on air quality in the CBD areas of Sydney. This information is used by air quality managers to inform pollution control measures and decision-making. The full ANSTO report, ‘Revealing the source of Sydney’s pollution’, is available at www.ansto.gov.au/AboutANSTO/News/ACS049674.
**Vehicle vision system**

VDO’s ProViu 360° surround-view system helps overcome blind spot issues and reduce the risk of accidents when manoeuvring large vehicles. It provides real-time, high-quality images using four specialised cameras with 187° fisheye lenses, giving the driver or operator 360° all-round vision with a view of the vehicle’s surroundings.

The system has retrofit and original equipment applications on a wide range of public transport, trucks, buses, commercial, contracting, agricultural and special-purpose vehicles. The four-camera system is linked to provide all-round visibility for the operator, reducing blind spots and displaying pedestrians, obstacles and dangerous situations that may not appear in direct rear-view mirrors. The transmitted images are adjusted perspectively and consolidated to create a preview in one bird’s-eye view.

The electronic control unit (ECU) merges the four images and/or selected views and displays them in a useful, user-friendly format on the screen located in the cab. The view can be configured to individual requirements to suit the driver’s needs.

Suitable for applications such as dense city traffic, narrow loading areas, cluttered factory yards, building sites or when negotiating narrow streets with parked cars, cyclists and obstacles, the system has full certification for EMC and type approval.

*Continental Pty Ltd*

[www.continental-corporation.com](http://www.continental-corporation.com)

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**Electrical downtime protection system**

The Power Outage Insight Solution (POI) is an intuitive crisis prevention and recovery system designed to maximise continuous access to safe electricity across critical power applications.

The solution is tailored for a number of sectors where uninterrupted power supply is highly critical including data centres, mining, oil and gas and healthcare.

As an integrated solution with no additional software required, Schneider Electric’s POI monitors low-voltage electrical distribution systems and schedules predictive maintenance for minimising unexpected downtime through its web-based interfaces.

In case of a power failure, the software performs real-time diagnostics to quickly identify the source of the problem and provides concise and easy-to-follow power-restoration instructions.

Additionally, the POI solution provides a wireless breaker-closing remote control device that allows users to close breakers from a safe distance.

The POI solution is cost effective and easy to install in both greenfield and existing sites. Its embedded database provides traceability of repairs, maintenance, and changes to device settings and layout for ease of long-term management.

*Schneider Electric*


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**Driver assistance systems for mining**

Sick’s MINESIC100 TPS (truck protection system) is a warning system for collision prevention and lane monitoring, designed for all types and sizes of dumpers and suitable for use in open cast mining applications. The largest of these vehicles is over 15 m long, almost 10 m wide and weighs 570 tons when loaded. This corresponds to a weight of around 330 medium-sized vehicles.

With these larger vehicles, it is practically impossible for the driver to maintain an overview of all areas of the vehicle in all driving scenarios - this is where the TPS system can be used.

The system monitors the two critical areas in front of and behind the truck and warns the driver as necessary. It also determines the position of the truck on the road. If the truck veers too close to the edge of the road or unintentionally infringes on the opposite lane, the driver is warned. If the driver intentionally leaves the road, to make a turn or dodge an obstacle, the system recognises this and does not emit a (false) warning.

The system has a 5” touch screen with integrated computer - similar to modern navigation systems. All the sensor data is routed here where it is processed by the TPS application software. If a critical situation is detected, it alerts the driver visually, according to the situation in question. An audible alarm also helps to attract the driver’s attention.

*Sick Pty Ltd*

Australian workplaces have recorded the lowest number of fatalities in 11 years according to data released by Safe Work Australia in the report ‘Work-related Traumatic Fatalities, Australia 2014’.

The annual report found that 191 workers died from injuries received at work in 2013.

Distressingly, the fatality rate for self-employed workers (4.39 deaths per 100,000 self-employed workers) was three times higher than the fatality rate for employees (1.31). This is partly due to the high fatality rates in the agriculture, forestry and fishing and transport, postal and warehousing industries, both of which also have a higher than average proportion of self-employed workers.

In releasing the report, Safe Work Australia Acting Chief Executive Officer Michelle Baxter urged all workers, whether employed by a business or self-employed, to make work health and safety a priority.

“While we have seen a 16% reduction in work-related deaths since 2012 (228), this does not mean workers should become complacent about reducing and eliminating risks while working,” said Baxter.

“In particular, it is alarming to see the fatality rate for self-employed workers is so much higher than for employees.

“This report serves as a reminder that self-employed workers still have the same legal requirements as an employer to ensure their own health and safety is maintained while at work, as well as the safety of people entering their workplace.”

Even if a worker is conducting a business in their own right, they should not ignore their own health and safety.”

Other key findings from the report include:

• The decrease in the number of work-related deaths from previous years can be attributed to fewer crashes on public roads, particularly involving workers in cars.

• The worker fatality rate in 2013 was 1.64 fatalities per 100,000 workers. Male workers had a fatality rate of 2.80 while female workers had a rate of 0.28.

• Over the 11 years of the series, one-third of workers who were killed while working died in vehicle collisions on public roads, one-third in vehicle incidents at workplaces and the remaining one-third of fatalities did not involve a vehicle.

• The agriculture, forestry and fishing industry recorded the highest number of fatalities in 2013 (48) followed by the transport, postal and warehousing (46) and construction (19) industries.

• 66 members of the public died as bystanders to someone else’s work activity in 2013.

The report is available at www.swa.gov.au.
Interlock system ‘initiating’ key cabinet

The SmartKey+ interlock key cabinet provides a simple, safe and visual way of storing interlock system ‘initiating’ keys. Providing all the features of Visual Alert Key Cabinet, the SmartKey+ interlock key cabinet has the added benefit of allowing the movement of keys to be recorded in real time.

Using RFID (radiofrequency identification) technology, a key can be tracked from the moment it is taken out of the cabinet until it is returned. This provides the operator and control room personnel with full information on interlocked processes and their status. Full transaction history is also available, revealing details of key insertion/removal. The unit is designed to support a remote web interface, without any specific licence.

The cabinet provides enhanced levels of security with each user identified by a pin code and all the keys trapped in the cabinet until authorisation is granted. Once authorised, the specific key positions that the operator is allowed to use will be highlighted and unlocked so the user can then select and remove the appropriate key from the panel. To reinsert a key, the user scans the key in front of the integrated scanner and the appropriate key position is highlighted on the frontal display for reinsertion.

Comprising modular sections each containing 18 key positions (which can be increased incrementally), the cabinet is configured around a central control panel that is capable of running a system with up to 288 keys.

Smith Flow Control Ltd
www.smithflowcontrol.com

Did you know that fixed anchorage eyebolts on building exteriors need to be certified annually?

Rent the Hilti Safety Bolt Inspection System from TechRentals

The Hilti Safety Bolt Inspection System is a fixed anchorage tester designed to assess safety anchor eyebolts on the exterior of buildings.

Tests on the exterior connection points of structures need to be performed on a yearly basis. These safe ring connection points are typically used to suspend window cleaning harness systems or for building façade maintenance.

Will certify safety bolts to:

- AS1891.4-2000 Industrial fall arrest systems and devices
  Part 4: Selection, Use & Maintenance
- AS4488.2-1997 Industrial rope access systems
  Part 2: Selection, Use & Maintenance

For more information call us on 1300 653 291 or email us at rent@techrentals.com.au
**Retrieval self-retracting lifeline**

The Rebel Retrieval Self Retracting Lifeline (SRL) by Protecta adds versatility and convenience to the Rebel self-retracting lifeline range. This model incorporates fall arrest and a built-in emergency retrieval winch for rescue, making it a versatile solution for many job sites.

Designed for confined space applications, the 3-way SRL also features rugged aluminium housing, an ergonomic carrying handle that makes transportation to and from the job site easy and a 140 kg user capacity. The retrieval SRL also includes an impact indicator to ensure the equipment has not been involved in a fall. A top anchorage swivel holds the SRL in line with the worker’s motion, allowing for ease of movement and increased mobility. The optional mounting bracket ensures the unit is easily integrated with a Protecta AM100 tripod for a complete confined space solution.

*Capital Safety Group (Australia)*
www.capitalsafety.com

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**Configurable safety relay**

Rockwell Automation has available the Allen-Bradley Guardmaster 440C-CR30, a flexible, configurable safety relay suitable for applications requiring 4 to 10 safety circuits and control of up to five zones.

The safety relay is configured through connected components workbench (CCW) software, which is the same programming environment used by the Micro 800 family of controllers, PanelView component HMIs and PowerFlex drives. Users are therefore able to create, control and monitor a safety system in the same software environment as their standard control.

According to the company, the software enables users to deploy complex safety functions through an intuitive logic editor to select certified safety function blocks for the safety relay. An embedded Modbus interface allows the safety relay to communicate diagnostic data so users can monitor, troubleshoot and modify their applications. Five status and 16 user-configurable LEDs on the safety relay’s faceplate provide local diagnostics to further aid in status reporting and troubleshooting.

The safety relay features 22 onboard configurable safety I/O points in a 110 mm footprint and provides a flexible solution for applications requiring multiple safety zones. Without increasing the footprint, the relay can also be expanded with two plug-in modules to support 16 additional standard I/O points.

*Rockwell Automation Australia*
www.rockwellautomation.com.au

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www.SafetySolutions.net.au
Longer air knives

EXAIR has expanded Long Super Air Knives to include a maximum length of 2743 mm and is now manufacturing all knives 1524 mm and longer in one-piece construction. The one-piece construction ensures seamless airflow and eliminates coupling multiple short length air knives together. It decreases overall height by ½” making it suitable for tight spaces. Super Air Knives produce a laminar sheet of airflow to blow off, dry or cool wide surfaces up to 2743 mm wide. The energy-efficient design minimises compressed air use by entraining 40 parts room air to one part compressed air. It is suitable for use on wide parts, webs and conveyors. Available from Compressed Air Australia, Long Super Air Knives provide a uniform, high-volume, high-velocity curtain of air that is adjustable from gentle blowing force to a hard-hitting blast of air. The compact profile measures 45 x 37 mm with compressed air inlets located on each end and the bottom to permit easy mounting in tight spaces. The long air knife is quiet, maintenance-free, has no moving parts to wear out and is CE compliant.

Long Super Air Knives are available in 60” (1524 mm), 72” (1829 mm), 84” (2134 mm), 96” (2438 mm) and 108” (2743 mm) lengths. They are available in aluminium and Type 303 or Type 316 stainless steel. A factory-installed plumbing kit is also available that makes it easy to connect Long Super Air Knives to any plant compressed air system.

Compressed Air Australia Pty Ltd
www.caasafety.com.au

Fall Prevention

Heard of another person falling off a ladder?

It’s time to let go of the ladder- Step up to more productivity, portability and safety with the NEW Liftpod. No matter what the job, Liftpod simplifies your workload for one fourth the cost of traditional work platforms.

• Hazardous jobs over 2 metres high using a ladder, can now be done with a cost effective and light weight Liftpod.
• Reduce the risk of a fall and raise the level of safety at your workplace. (See Hierarchy of Control for Fall Prevention).
• Liftpod Complies with Australian Standards AS/NZS 1418.10 2011 and is supplied with easy to use push button power packs.
• Work safely and reach up to 4.3 metres high with both hands.

Liftpod & Fall Prevention advice available at Improve Height Safety (03) 9720 7707
www.improveheightsafety.com.au
Global consultants DuPont Sustainable Solutions warns that too much attention is being paid to ‘ticking the box’ with regulations and not enough time and effort is being invested in driving cultural change across the workplace.

"The "she’ll be right mate" attitude is prevalent in our work environments," says Graeme Iggo, safety advisor for DuPont Sustainable Solutions across Australia and New Zealand. "As a societal norm, that culture can be incredibly detrimental to the way a workforce operates. While constantly reviewing and updating regulations and processes is certainly important, the reality is that those are short-term fixes and they aren’t going to be effective on their own.

"Unfortunately, it’s taken some major tragedies and a concerning track record of workplace safety for employers and employees to realise our safety record should be a lot better than it is," he said. "So how do we drive cultural change across sectors?"

"First we need to do an audit - be that at an industry-wide level or just on an individual company level - and identify the issues, gaps and concerns.

"Then, one of the most important parts is implementing tangible change to rectify the issues. We need to ensure workers understand the current situation and the vision for the future, and that they are then educated, trained and communicated with on an ongoing basis to achieve that. It’s also about developing a culture that employees value; why they want to be there and why they want to work efficiently to achieve goals on time and on budget."

CBH Group, one of Australia’s leading grain organisations, has recently undertaken some major work to drive culture change and improve safety across the workplace. When CEO Andrew Crane joined in 2009, he informed his team that he could no longer accept workers being hurt as an accepted part of doing business.

Through a conscious decision to change, CBH shifted its mindset from a production-focused organisation to one with the belief that business performance and productivity can be improved through a high-performance safety culture.

The end goal is a workplace wherein employees take direct ownership and responsibility for their own and others’ safety. This kind of leadership nurtures trust, engagement and relationships among employees, shareholders and the wider community.

DuPont started working with CBH to help integrate safety into the organisation’s business culture, institute training and coaching for CBH leaders, and quality incident investigations. Almost 40,000 hours of field training occurred in the first year alone and the business increased its investment in safety, team resources and a dedicated safety capital budget.

The result has been significant improvement in injury and incident rates, as well as CBH business performance. They’ve also achieved a 62.5% reduction in their lost time injury frequency rate since 2009 and have been able to sustain that.

"The key to achieving a safer workplace is setting best practice processes in place and encouraging workers to not only meet those regulations but understand how and why they work and encouraging them to be the champion of enforcing them. We want them to openly and proudly value their own and their workmates’ safety and on a daily basis be doing everything in their power to ensure they keep safe.

"At the end of the day it’s these people who are at the coalface. If we can’t drive change in safety awareness and behaviour through to the people on the ground, then this reform will ultimately fail.”

www.sustainablesolutions.dupont.com

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Graeme Iggo is a consultant for DuPont Sustainable Solutions (DSS). Having a career of nearly four decades with DuPont, it is inevitable that safety awareness and focus becomes very much part of his everyday life - both at and away from work. He is passionate about safety, and has helped industries such as forestry, airlines and engineering improve their safety culture.
Direction finder with I/Q analysis

Narda Safety Test Solutions has equipped the second generation of its Interference and Direction Analyzer with I/Q analyser functions. Based on the I/Q data, the handheld IDA 2 generates high-resolution spectrograms, persistence spectrums and time domain displays that were previously only available from high-cost laboratory instruments. Radio spectrum interference and impairments can thus be detected and analysed on the spot.

Unintentional or deliberate RF interference, illegal transmitters or interference between permitted radio signals can be difficult to detect if it only occurs sporadically or is hidden under conventional signals. The company has equipped the IDA 2 with I/Q analysis functions in order to also detect and locate such signals.

The instrument records the I/Q data in real time at a maximum channel bandwidth of 32 MHz, and saves up to 250,000 I/Q data pairs without compression, ie, without loss of data. Based on this data, the IDA 2 computes high-resolution spectrograms, persistence spectrums or oscilloscope-like displays versus time. Computation is done continuously during the measurement or subsequently from the stored data set. Since the underlying data remain unchanged in the device memory, users can alter the display parameters such as the frequency or time resolution afterwards and zoom in on details right down to the original resolution offered by the I/Q data.

The combination of high-resolution spectrograms, persistence spectrums (with afterglow effect) and t1-response displays enables detection, identification and localisation of signals that would otherwise remain hidden in a conventional spectrum display. Experts can therefore trace the source or cause of interference directly on site. Transferring the data set to a PC is useful for documentation or subsequent evaluation purposes.

Designed as a handheld unit for field use, the basic unit including battery weighs less than three kilograms. The antenna and handle together weigh less than one kilogram because the power supply is taken from the basic unit. The rechargeable battery can be hot swapped without interrupting operation.

Narda Safety Test Solutions GmbH
www.narda-sts.de

Respirators with IP rating

Sundström fan-driven respirators have now been issued with IP rating - a clear way of expressing how resistant equipment is to dust and liquids.

Both the SR500 and SR700 PAPRs (Powdered Air-Purifying Respirators) have achieved the same IP67 rating in stringent tests.

‘IP’ stands for ‘Ingress Protection’ and, put simply, signifies how resistant a mechanical or electric casing (such as a plug, socket, jack or connector) is to dry particles and liquids entering the electronics of the device. The IP is followed by two digits, the first representing ingress of solids, ranging from large objects to minute particles. The second digit rates penetration of liquids, spanning from falling raindrops to high-pressure, close-range spray, such as steam cleaning.

Both Sundström respirators were given the IP67 rating: firstly, completely dust-tight, and secondly, resistant to immersion in water to a depth of 1 m for 30 min.

Safety Equipment Australia Pty Ltd
www.theseagroup.com.au
On Site Safety has released a variety of pink safety products to help you make a difference in your work force.

Classed as a Night Only pink vest, it will help you stand out from the crowd. It comes with horizontal hook/keeper enclosure as well as the H pattern silver reflective tape. It is available in a variety of sizes from small to extra large.

Also available is the pink Vented Hammerhead hard hat. The Hammerhead hard hat is certified by SAI Global as a Type 1 Industrial helmet. It comes with the pin lock harness, and is able to be pad printed.

Complete your work wardrobe with the pink Interlock glove clips as well as the pink sunglass cords.

Contact us for your nearest distributor.

NASA has launched the force and motion measuring shoes, co-developed by Xsens and the University of Twente in the Netherlands, to outer space. One pair of Xsens force-measuring shoes, called ForceShoe, are now onboard the International Space Station (ISS). With the force and motion trackers in each shoe, the intensity of the astronauts’ workouts can be analysed and perhaps optimised.

Resistive exercise is required so that astronauts can maintain healthy muscle and bone mass during prolonged exposure to microgravity environments. NASA is seeking a portable and reliable way of measuring forces while astronauts conduct exercise routines on the Advanced Resistive Exercise Device (ARED), which is specialised exercise equipment installed on the ISS. NASA uses a variety of load cell and motion trackers, like the Xsens products, to support their research efforts. NASA spent a lot of time verifying the technology incorporated into the ForceShoe works well on the ground before launching the shoes into space. The ForceShoe passed a series of rigorous tests, including parabolic flight tests, before NASA was confident enough to evaluate the technology on the ISS.

Professor Peter Veltink, who led the development of the shoes at the University of Twente, noted, “It’s a proud moment to know that the shoes are now orbiting earth on the International Space Station.” The shoes were launched with the Russian Soyuz on 28 May 2014.
Flame-barrier cables

Prysmian Power Cables and Systems Australia has released its flame-barrier cables for use with non-barrier-type glands.

The flame-barrier cables are suitable for use with non-barrier-type flameproof glands and are specifically designed to be used in a variety of hazardous and potentially explosive applications including mine sites, oil and gas platforms, fertiliser plants, chemical installations and explosive manufacturers.

Prysmian’s flameproof cables cover all requirements for LV Power, LV Control and ELV Instrumentation. The cables have a substantially compact and circular construction, evaluated and tested for gas groups IIA and IIB to the requirements of AS/NZS 60079.14-2009 clause 10.4.2 (b) and AS/NZS 60079.1-2007 clause 15.2 using already certified Exd-rated, non-barrier-type flameproof glands with sealing rings.

The Armoured cable provides wiring protection levels exceeding EPL Gb for non-energy-limited wiring systems in accordance with AS/NZS 60079.14-2009 table 6. This protection level is generally adequate for Zone 1 and Zone 2.

The cables have the option of specific engineering to provide reduced flame propagation exceeding the requirements of IEC 60332-3 category C bunched vertical test.

Prysmian Cables & Systems Australia Pty Ltd
www.prysmian.com.au

Portable expandable safety barrier

LSP’s expandable safety barriers can provide a cost-effective solution to prevent unwanted access to restricted areas. Fully expanded, the safety barrier is 4.4 m long and 950 mm high and it can be closed to a compact 300 x 950 mm for easy storage.

Suitable for portable applications, the barrier can also be fixed in position and attached with screws. The aluminium galvanised frame ensures long life and the polyester black and yellow coating ensures high visibility. At only 3.5 kg, the safety barrier is easy to handle. Common applications include: separating pedestrians from forklift operating areas, crowd control, directing movement of pedestrians and hazard protection, eg, slippery surfaces or fall protection.

Line Marking and Safety Products
www.lspsecurity.com.au
Pilz launches new Robot Safety course

Australia is seeing a significant growth in the use of robots, especially in non-traditional industries, as the relative cost of robots decreases and companies search for improvements in operational costs and efficiencies.

As a result, Pilz has seen a rising demand for robotic safety systems and has recently designed a new robot safety training course to provide those who integrate robotic systems with a comprehensive understanding of the essential requirements of robot safety.

The one-day course examines how the risks associated with the use of robotic systems should be assessed and how to achieve safety while maintaining productivity.

Designed for technical personnel responsible for ensuring robotic system compliance, the course covers best practice standards including ISO 10218 and AS 4024.3301 - Robots for Industrial Environments - Safety Requirements.

Participants will learn about risk assessment in robotic cells, common hazards and controls and robotic safeguarding techniques, and will leave with the knowledge to apply the correct strategy to ensure right first-time engineering.

According to Scott Moffat, Pilz managing director, we’re seeing a huge increase in the number of robotic systems used in manufacturing. While these systems can deliver numerous benefits, they can’t be at the expense of safety.

“Our new Robot Safety course will enable participants to create safer robotic systems and reduce accidents.

“We have also invested in upgrading our SafetyEYE, a safe 3D camera system that allows for users to program various levels of danger zones letting the worker interact more closely with the robot without comprising safety. The new version of SafetyEYE has an improved application range and higher resolution, making it suitable for a wider range of installations,” said Moffat.

Whether your organisation is installing robots for the first time or looking to strengthen safety systems associated with robots, the Robot Safety course will enable participants to prioritise design activities related to risk and reduce complexity of safety solutions to increase productivity.

The upcoming Robot Safety course will take place:

- Sydney - 24 September 2014
- Brisbane - 3 March 2015
- Adelaide - 18 June 2015

For further information and bookings, visit www.machinesafe.com.au.

Get involved in work health and safety this October

This October is Safe Work Australia Month (safety month) - a time to promote the importance and raise the awareness of work health and safety in Australia.

As part of safety month Safe Work Australia is hosting the first Australian Work Health and Safety Strategy Virtual Seminar Series (VSS) - a free online event aimed at those with an interest in work health and safety.


Each weekday in October the VSS will showcase some of the latest work health and safety thinking, developments, innovations and research by work health and safety regulators, experts, business leaders and academics.

The themes for the VSS are:

- leadership and culture,
- responsive and effective regulation,
- agriculture and road freight transport industries, and
- small business.

The details for the VSS will be available through the Safe Work Australia Safety Month smartphone app, which can be downloaded from the Apple App store or through Google Play by searching for "Safe Work Australia Safety Month".

For more information on Safe Work Australia Month, the VSS or to download the draft program, visit www.swa.gov.au.
Australia revises AS 4024.1 and adopts International Machinery Safety Standards

Standards Australia has recently released a number of revised parts of the Australian Standard AS 4024.1 Series - Safety of Machinery to align with global standards and strengthen workplace safety.

The revised parts have been individually issued at this stage with the entire standard due to be released as a 2014 version once the application guide (part 1100) is finalised later this year. The AS 4024.1 series provides designers, manufacturers, suppliers, employers and users of machinery with guidelines to help reduce the risks of working with, or near, machinery.

According to Scott Moffat, managing director of Pilz Australia, the Safety of Machinery Standard has grown in relevance over time. It has recently been adopted as an AS/NZS Standard and is now being revised to form closer alignment to the European machinery safety standards. It is also set to incorporate the new conveyor standard (AS1755) in the near future.

"It is a logical step to continue to update AS 4024.1 Series to European standards as they lead the world in this area of machinery safety," said Moffat.

Standards Australia’s Technical Committee said the principal task of the 2014 revisions for the AS4024.1 Series was to consider the latest international standards and incorporate these into the original 2006 Standard.

"The original standard was published as a series of small parts so that when new editions of relevant ISO, IEC or EN standards became available they could be adopted and published within the framework of AS 4024 with minimum delay,” said Standards Australia’s Technical Committee.

In total, 19 Parts have been revised; 1201, 1302, 1401, 1601&2, 1604, 1701-4, 1801&3, 1901-7; two new Parts have been added: 1303, 1503; and four Parts superseded and withdrawn (1101, 1202, 1301, 1802) with the application guide (1100) to follow.

In summary the main changes are:

- The risk assessment approach parts 1201 & 1303 (new) have been updated to reflect the global standards of ISO12100 (Machine Safety, General principles of Design, risk assessment and risk reduction) and ISO14121-2 (Practical examples of Risk Assessments).
- A new Part 1503 that now gives the practitioner the option to design safety-related control systems using ISO13849-1 and the Performance Level (PL) approach. Note that Part 1501 (Category approach) still remains in the standard and the designer still has this option.
- Parts 1602 (Interlocking devices) and 1604 (Emergency Stop) are now both direct text adoptions of their international standards, ISO14119 and ISO13850 respectively.
- Guarding Parts 1801 (Safety Distances) and 1803 (Minimum Gaps) are also now both direct text adoptions of their international standards ISO 13857 and ISO 13854.

"Pilz Australia and New Zealand is well placed to assist our customers with the revised Standard as our company has a rich European background and a large number of technical experts locally and globally who are very familiar with all the European standards," said Moffat.
COMMS CONNECT RETURNS TO MELBOURNE

Now in its 8th year, Comms Connect has become the leading conference and exhibition for combined communications users and industry.

With keynotes, workshops and panel sessions, this year will see the launch of a new, dedicated stream focusing on all that is important in the public safety communications sphere.

**Keynotes**

- **Deputy Chief Eddie Reyes** — Alexandria, VA Police Department  
  *Next Generation 9-1-1 (0-0-0): Are public safety agencies ready?*

- **Shane Fitzsimmons AFSM** — Commissioner  
  NSW Rural Fire Service (RFS)  
  *The value of communication networks in a public safety environment*


**2014 Training workshops include:**

- Next Generation Triple Zero (NG000): challenges and opportunities
- In a converged communications environment, just how secure is your radio system?
- Advanced radio over IP
- Ensure network migration success with change management
- Practical guide to working with fibre optics
- TETRA: Advanced systems planning, integration and deployment

In conjunction with the ARCIA Industry Gala Dinner — 1 October 2014 — MCEC. Visit [www.arcia.org.au](http://www.arcia.org.au) to book your tickets.
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