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[#] Reference: Work-related injuries and fatalities involving a fall from height, Australia, October 2013, Safe work Australia

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FEBRUARY/MARCH 2016

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THE DUAL ROLE OF WELLNESS PROGRAMS AND DRUG AND ALCOHOL TESTING POLICIES

Clayton S Jan, Communications Advisor for Andatech



Most people recognise that drug or alcohol abuse can be a warning sign of a mental health crisis. As such, drug and alcohol testing can be the first to uncover what may well be a potential problem. Likewise, wellness programs establish positively focused activities to improve the mental and physical health of the workforce. Both are opportunities to support the mental health of the workforce but doing so comes with its own set of challenges. Ensuring your programs are, and are seen to be, fair and reasonable is essential to secure the support and participation of your stakeholders.

Wellness programs are becoming a common feature of business. The annual Employee Benefits Survey conducted by the Society for Human Resource Management found that in 2015, 70% of respondents offered a wellness program, eight percentage points higher than in 2014. While 'wellness' might sound soft, those on the leading edge are shifting their focus in wellness from nice-but-unmeasurable token efforts like healthy bowls of fruit in the canteen to strategically aligned risk-amelioration goals. Actions like identifying actual workforce health risk factors, introducing customised programs to lower those risks and then using a mix of financial metrics including return-on-investment and value-of-investment, as well as non-financial metrics such as shifts in short- to long-term workforce-level health are becoming best practice.

Measuring metrics is the difference between a wellness program that is known to deliver quantifiable productivity-driven outcomes and one that will likely never be more than an employer branding exercise. If management of assessments and measurements is undertaken by a third party that keeps individual records confidential, then individuals' anonymity can be better guaranteed by the employer, and the employee less concerned about the role of wellness programs in their employment prospects.

Keeping wellness programs anonymous and voluntary while also measuring towards goals isn't easy. Privacy concerns, especially about health matters that do not directly affect work, require wellness programs to be carefully constructed around the needs of the worker, as well as the goals of the enterprise. Developing a wellness program has its own sets of challenges around equal opportunity, privacy and voluntary participation; this is increased when drug and alcohol testing reveals a positive result.

One of the upcoming threats to individual health which will be a serious challenge for employers is that of pharmaceutical and prescription drug abuse. The US Center for Disease Control and Prevention has already called it the latest drug epidemic. US citizens reporting pharmaceutical pain medication abuse skyrocketed from 628,000 to close to three million in the 1990s. Australian reports are equally alarming: The National Drug Strategy Household Survey 2013 reports that 4.7% of Australians aged 14 or over had abused pharmaceutical medications in the past 12 months, up from 4.2% in 2010.

The ways that prescription and pharmaceutical drugs might be abused include using another person's prescription, buying prescription drugs illegally, using one's own prescription and pharmaceutical drugs improperly or using them outside of the direction of a doctor or chemist.

Drug and alcohol testing policies will not assist in identifying these underlying issues. Because drug and alcohol abuse points to other potential concerns such as mental distress, it is important that drug and alcohol testing policies include mental health first aid. Indeed, the tester may be in the front line and therefore able to recognise a potential mental health problem as it is progressing.

For employers, this is a challenge on various levels: so-called 'zero tolerance' drug policies at workplaces might make it easy to take immediate action when a worker is found to have taken illegal drugs at some point, regardless of whether there has been any actual impact on work safety or performance. This approach, however, becomes problematic with prescription drug abuse: as a hypothetical, do you exercise 'zero tolerance' for someone taking prescription painkillers? What if those painkillers are prescribed to them? Or to someone else? How do you assess that? Pharmaceutical drug abuse is a game changer and requires some understanding not only of the issues surrounding it, but also of how it can point to deeper issues that might open up employers to accusations of discrimination unless prepared for and managed carefully.

To link drug and alcohol testing and wellness is obviously not for beginners. It gains entry to entirely different territory when drug and alcohol testing policies include awareness of mental, psychological and emotional issues that can underlie drug and alcohol abuse, or misuse if it is linked to a workplace wellness priority. But while it might appear best to just avoid the possibility altogether, the abuse of pharmaceuticals and its possible connection to mental health means that high-quality wellness programs and drug and alcohol testing regimes are linked by the need for fair and non-judgmental procedures to assist employees identified to be at risk.

It is outside the scope of this article to discuss legal implications, but the social and productive implications of drugs and



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... THE ABUSE OF PHARMACEUTICALS AND ITS POSSIBLE CONNECTION TO MENTAL HEALTH, MEANS THAT HIGH-QUALITY WELLNESS PROGRAMS AND DRUG AND ALCOHOL TESTING REGIMES ARE LINKED BY THE NEED FOR FAIR AND NON-JUDGMENTAL PROCEDURES TO ASSIST EMPLOYEES IDENTIFIED TO BE AT RISK.

alcohol policies are clear: with a shift towards prescription drug abuse and the potential for drug and alcohol testing to uncover deeper emotional and mental issues, the line between wellness programs and drug and alcohol policies is blurring. Both have roles to play in managing risk factors for the workplace, and employers would be best placed to address those risk factors fairly and effectively by considering these larger issues when constructing or reviewing these strategies.

Presuming that impairment from drugs has occurred for recreational reasons is inappropriate; as is presuming that a punitive approach to positive tests is always the best option. When those in authority treat people with respect, honesty and fairness, then the individual feels their status is not being challenged and that they are valued; commitment to desirable behaviours is promoted. Conversely, failing to treat people with respect, honesty or fairness is more likely to make the individual angry, resentful and antagonistic.

The question is whether you want your wellness program and drug and alcohol testing policy to be seen as promoting workforce health and safety, or as a way for those in authority to exercise moral or ethical control over the workforce.

In some ways, it is still early days for many wellness programs and drug and alcohol testing regimes. There is still much opportunity for improvement and to make these long-term investments work. These two, however, do have some synergies that suggest an opportunity to link them in terms of identifying and supporting those with mental health risk or who are in the middle of a crisis. To do so will be challenging, but by considering the issues of privacy, measurement and potential opportunities to engage third-party management of some parts of your policies, you can improve your systems to achieve measurable results in lowering your health and wellness risk factors.

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Steel Blue's Southern Cross blue boots are available in non-safety (no steel toecap) or safety options and are antistatic and water resistant. The option of no safety toecap makes these boots super light and flexible, and they are suitable for landscapers, architects and everyday gardeners. Apart from being water resistant and comfortable, with every purchase of Southern Cross blue boots Steel Blue makes a donation to the Prostate Cancer Foundation of Australia and beyondblue.

Features include: endorsed by the Australian Physiotherapy Association for full body health; cowhide water-resistant nubuck leather; stitched nylon thread; non-corrosive lacing; lined with Baltico (soft, non-abrasive, hydrophobic material); and heavy-duty, flexible antibacterial full length PORON/non-woven insole.

Steel Blue

www.steelblue.com.au



Auto-darkening, high-impact helmet

BOC has added the Weld Guard high-impact helmet for both welding and grinding to its Weld Guard protective products range.

The auto-darkening helmet, with a stand-out graphic design, gives welders the flexibility to work with different processes such as MMA stick welding, MIG/MAG and TIG welding (above 20 A). It also offers

variable controls that rapidly adjust the shade from light to dark within 3 ms.

The helmet allows users to conveniently switch from welding to grinding mode for pre- and post-welding clean-ups, while the shell design offers full coverage and is high-impact resistant to give the user maximum protection. It is also lightweight and comfortable for a full day's work and allows magnifying lenses to be fitted, as an optional extra, giving clarity for near-sighted welders. The product comes with a two-year conditional warranty.

BOC Limited

www.boc.com.au

New tool to create safer workplaces

A practical survey tool designed to aid prevention of injury and illness at work has been tested by Monash University and found to be useful in helping to create safer workplaces.

The Monash research team tested the 'Organizational Performance Metric' (OPM) tool, which was developed in Canada for employers to help them identify areas for health and safety improvement, people who are more at risk in the workplace and steps to prevent incidents from occurring.

As part of a larger national study, the team assessed the usefulness of the OPM — a measure of eight occupational health and safety (OHS) leading indicators — to gauge employees' views of how healthy and safe their workplaces were.

The results highlighted that in workplaces with a greater commitment to WHS, employees experienced fewer injuries and illnesses at work, which often meant fewer claims or incidents causing time lost from work.

Lead researcher Professor Helen De Cieri, Monash Business School, said the indicator provided a sense of an organisation's ongoing health and safety initiatives, and its potential for injuries and illnesses before they occur.

"Worldwide, there is strong interest among government and industry stakeholders in the use of leading indicators as a measure of workplace health and safety performance," De Cieri said.

"We want to shift the focus of workplaces from counting the cost of injuries and illness to better work practices that prevent incidents, with more attention to OHS leadership, equipment and resources, and access to health and safety training.

"We've found that the tool is a simple way for workplaces to identify areas for health and safety improvement, people who are more at risk in the workplace and steps to prevent incidents from occurring."

The team combined the results of two separate studies of more than 1400 Australian workplaces and 3500 workers.

Professor De Cieri said the research could also help policymakers and employers make decisions about distribution of health and safety resources.

The project was conducted by Monash University in partnership with WorkSafe Victoria, the Institute for Safety, Compensation and Recovery Research (ISCRR) and SafeWork Australia.

Monash University

www.monash.edu.au

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THE FUTURE OF SAFETY TECHNOLOGY

Stacey Wagner, Myosh

Our world is ever changing due to advances in technology. The more aware we are of new trends in technology, the better we are able to integrate them into our daily lives and workplaces, and better able to keep our workers safe.

Today's advancing technologies have made safety manuals and classroom safety training all but obsolete. So, how will these advances affect our workplace in terms of managing safety and the role of the safety professional?

Occupational illness

Due to the cumulative nature of occupational illness, it is harder for companies to track and mitigate exposure to potentially harmful toxins in the workplace than it is to prevent injuries due to hazards. Personal wearable technology could change that. Biometric technology is being used to monitor exposure to hazards that cause respiratory illness, hearing loss, skin diseases and other known occupational diseases. Preventing occupational disease could be as easy as wearing a device on your arm, similar to fitness trackers many of us are already wearing.

Training

Learning doesn't have to take place in a classroom anymore with the advent of webcams to support videoconferencing; training can take place virtually all across the world. Training courses can be accessed online, on demand. No need to wait for a classroom and a trainer to be available. Training is available whenever and wherever the learner requires. Augmented reality technology, such as Google Glass and simulation training, brings training to a whole new level, allowing the trainee to connect with information by putting them in the driver's seat — literally. Augmented reality is showing potential for reduced errors in the workplace after its use in training. Because it allows for a variety of real-world scenarios, the trainee can experience workplace situations and apply skills mastered in training directly to their jobs.

Mobile technology

In industries such as construction, having technology that goes with you is indispensable. Companies are using Bluetooth to track where workers are located in case of structural collapse to enhance safety. Cloud technology allows workers to access data in

real time from the field and share information with the office and other locations. This technology has reduced the time that managers and foremen have to spend at their desks by making their safety reporting tools portable. They can track and manage safety from their phones and tablets, even taking pictures and video of hazards and uploading them to cloud-based software.

Psychological workforce management

Companies are pressured to do more with fewer staff, meaning the health and safety professional must know more about the company and its workers than ever before. Stress and mental health are becoming common workplace issues, with mental illness being the largest cause of absenteeism. Because of the effects mental health has on workplace efficiency and safety, it is important to track and manage these. Other psychological management issues of increasing importance in the workplace include workplace violence and bullying and harassment, which are increasingly managed by safety departments.

Drug and alcohol prevention

Zero tolerance policies regarding drug and alcohol use are prevalent in many workplaces and drug testing is mandatory in many industries. New court decisions may shape the future of policy, but tracking and testing in compliance with current regulations will continue to be the key to effective enforcement as this issue will likely only get larger as time passes.

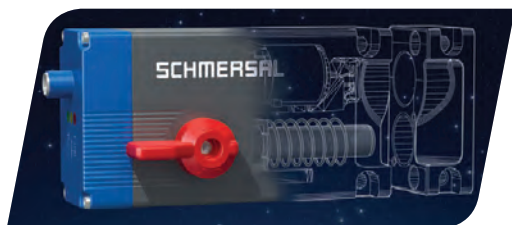
Security

QR codes enable badge scanning at security gates to verify employee identity and confirm that necessary training has been completed prior to site entry. This is increasingly critical as workplace violence escalates to verify identities so only individuals with appropriate clearance gain access to work locations. Look for this area to grow in importance.

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Workplace incident communication tool

The Crisis Covered communication tool developed by Corrs Chambers Westgarth is a workplace health and safety tool designed to manage legal risks in the event of a workplace incident.

The program can be accessed through the browser on a smartphone, tablet or desktop computer. The product allows the capture of important data and evidence, including photos or recordings live from the scene of an incident, as well as the control of important communications following a crisis, in a secure, confidential and immediate way. It assists users to provide timely legal briefings to site managers, general counsel and management regardless of their location.

The interactive tool works in real time and once an alert has been activated by a user through the product, the on-call legal team, available 24 hours a day, receives instant notification via email and SMS.

The advice received via the communication tool is privileged and all data in transit is secure and encrypted.

Corrs Chambers Westgarth

www.corrs.com.au



3D solids scanner

The Rosemount 5708 Series 3D Solids Scanner from Emerson Process Management is designed to accurately measure level and volume of bulk solids and powders in large vessels, bins and silos using acoustic measurement and 3D mapping technology.

Uneven surfaces, irregular build-up and harsh, dusty and potentially explosive environments make measuring the level of solids in large vessels problematic. Designed to meet these challenges, the device provides users with greater control of inventories and entire manufacturing processes. It is also ATEX/IECEx certified for installation in areas with potentially explosive atmospheres.

The solids scanner features a mounting adaptor to install the device within electrostatic precipitator (ESP) hoppers. By using its 3D visualisation capability to map out the surface of the fly ash that builds up in the hopper, operators can optimise the process, reducing risk and wear and tear. It also has a self-cleaning function which can be complemented with a PTFE-coated antenna, helping extend maintenance intervals, especially where extremely sticky materials are present.

The solids scanner is also compatible with full SCADA integration support, enabling 3D visualisation of the surface level into Emerson's Ovation or DeltaV distributed control systems, delivered directly to control room operators. The device can also be connected wirelessly to a WirelessHART network using a Smart Wireless THUM Adapter.

Emerson Process Management Aust P/L

www.emersonprocess.com.au

Used lead acid battery recycling

Battery Rescue's UNISEG Pallet has been designed for the storage, collection and direct transportation of used lead acid batteries (ULABs). The chemical- and acid-proof pallet incorporates a liquid-retaining bund area to capture up to 25 L of acid leaks and is weather resistant when closed, making it suitable for outdoor use.



The front-load configuration enables staff to easily and safely stack batteries onto the pallet, while the rear, left-hand and right-hand panels help keep the batteries in place. When the pallet is full of batteries it can be closed and secured by the 10 over-centre latches, enabling it to safely store up to 1.2 t (approximately 70 car batteries). The pallet comes with all the necessary dangerous goods signage for transporting the ULABs, so once closed it is ready for immediate transportation.

Battery Rescue provides the pallet for free as part of its battery collection service. This includes delivery and set-up of the pallet, collection when full, replacement with an exchange pallet, and handling and transport to a registered ULAB processing plant. Payment to customers at applicable London Metals Exchange rates for their reclaimed and recycled lead is made via EFT within seven days of pallet delivery to an approved ULAB processing plant.

The used lead battery collection service completely eliminates manual handling from the point of original collection to the end destination. The pallet provides convenience, occupational health and safety improvements and improved environmental outcomes.

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CONFINED SPACE CAN BE A DEATH TRAP IN THE WAITING

Capital Safety Group (Australia)

Not all employers and operators understand what constitutes a 'confined space', nor the dangers associated with working in such environments. Similarly, should the need for rescue from a confined space occur, a well prepared and rehearsed retrieval operation must be available for immediate implementation. The failure of understanding confined space operations and rescue and retrieval methods can place both the employee and the employer at significant risk.

The following article has been written to provide an overview of confined space operations in layman's terms and should not be seen as a substitute for taking correct professional advice — nor for certificated training.

What is a confined space?

A confined space is an enclosed location that is not intended for human occupancy that may include a restricted means of entry or exit.

A confined space:

- is large enough for a worker to enter and perform work;
- may have limitations to the entry to or exit from the confined space;
- may knowingly or unknowingly contain a hazardous atmosphere;
- may contain other hazards that expose anybody in the area to risk.

Confined spaces include:

- tanks, vessels, silos and vats;
- manholes, pipes, culverts and ducts;
- large vessels, tanks and rooms with restricted entry and exit;
- an enclosed area that may have a build-up of toxic or hazardous substances.

Confined space activity is a complex issue requiring experienced analysis. It is not simply the size of the space that is critical, nor is it simply the ease of access and egress, nor is it only the risk of hazardous atmospheres and chemicals within the confined space. It is a combination of all these coupled with the risk of injury to

the worker within the confined space and the resulting complexities for a rescue and recovery operation in this environment.

Why are confined spaces dangerous?

Confined space accidents are notorious for multiple fatalities with the single largest risks being the injury and subsequent recovery of a person from a confined space. Atmospheric hazards from the presence of chemicals are often odourless, tasteless and colourless. Lack of sufficient oxygen to remain conscious is also undetectable without the use of correctly calibrated analysis equipment.

Restricted working space often leads to work being carried out closer than desirable to electrical and mechanical risks, including moving machinery such as conveyors.

When an accident occurs within the confined space, rescue measures are often initiated in an unplanned and unrehearsed fashion with untrained employees and inadequate equipment, leading to risk to the rescuers, which often results in them succumbing to the same fate as the worker being rescued.

Confined space risks include:

- oxygen deficiency;
- noxious and poisonous gases;
- suffocation by materials (eg, grain silo) or drowning (eg, culvert);
- contact with toxic or hazardous materials (eg, chemical industry);
- electrocution;
- extremes of temperature (eg, furnaces, cold rooms);
- slips, trips and falls (eg, descending/ascending access);
- explosion.



How do we prepare for confined space operations?

Potential confined space operations should be subjected to the same analysis as any other work practice where a risk to employees has been identified.

Where the requirement may exist for service or maintenance works in a confined space, the basic principles of hazard identification and risk assessment should be applied. The hierarchy of this process is as follows:

- hazard identification;
- risk assessment;
- risk elimination;
- risk minimisation;
- protective equipment and work practice specification.

Having identified confined space access as a hazard, the first objective should be to eliminate the hazard by effecting changes to either the equipment or the work practice that prevents the need for personnel to enter the confined space.

Where this is not possible, risk minimisation action should be attempted — again by effecting changes to the equipment or work practice. For example, increasing the size of the entry and exit positions to the confined space or ensuring improvements to airflows, lighting, etc. The isolation of other potential hazards (electrical, chemical risks, etc) should be implemented. This can include zone shutdowns, process flow shutdowns — using correct lockout/tagout controls and processes.

“ WHEN AN ACCIDENT OCCURS WITHIN THE CONFINED SPACE, RESCUE MEASURES ARE OFTEN INITIATED IN AN UNPLANNED AND UNREHEARSED FASHION WITH UNTRAINED EMPLOYEES AND INADEQUATE EQUIPMENT, LEADING TO RISK TO THE RESCUERS, WHICH OFTEN RESULTS IN THEM SUCCUMBING TO THE SAME FATE AS THE WORKER BEING RESCUED.

If the results of the elimination and minimisation activities still leave an identified risk, efforts must then be directed at the minimisation of risk through the use of appropriate safety equipment coupled with documented work practices that cover the total confined space activity plan. These documented processes should cover the original work required, but must also cover rescue and retrieval procedures in the event of an accident.

Entry, exit and retrieval equipment is critical

A safe means of entry and exit from a confined space is critical in the risk assessment process, as is the provision of rescue and retrieval plans.

Access to the confined space requires both the correct equipment and work practice, which is usually achieved by the use of correctly matched equipment forming a confined space 'kit'. This would generally comprise:

- a suitable anchorage point outside the confined space, such as a tripod or davit system. Tripods with telescopic legs are available in 2.1 and 2.7 m versions constructed from corrosion-resistant aluminium. Davits come in a wide range of flexible configurations for permanent or temporary mounting;
- a self-retracting fall-arrest device to arrest any free falls on descent or ascent. These units are available in lengths up to 40 m in stainless steel and galvanised cable. Due to the high level of contaminants and dirt usually associated with confined space operations, units with mechanisms sealed from the cable and drum should be preferred. Breaking forces of less than 4 kN over an arrest distance of less than 1 m should be used;
- a manually operated winch in lengths up to 58 m for entry and rescue. Winches offer a mechanical system of rescue in demanding locations providing a means of retrieval and secondary backup when required;
- a rope-positioning device or retrieval winch for work positioning and suspension as well as rescue and retrieval. These are available in a number of configurations from 3:1 to 5:1 pulley ratios. Where a bosun's chair is used with a rope-positioning system, Australian Standards require the use of a full body harness and a secondary fall arrest device;
- a confined space fall arrest harness with rescue attachment points and a spreader bar.

Critical to the use of this equipment is professional confined space training and personnel certification, together with documented work practices that include rescue and retrieval plans.

Equipment maintenance — it's too late if it doesn't work

Confined space operations are often carried out in severe conditions. It is therefore critical that all equipment is fully cleaned after use and before storage. Because of the limited use of such equipment in some applications, it is essential that regular training of confined space staff is undertaken and recorded. Additionally, under Australian Standards, many items of confined space equipment require annual inspection and recertification by the manufacturer. It is the duty of care of the employer to ensure that all equipment being used in such applications is within its test period.

Don't overlook supporting equipment

Depending on the risk assessment conducted, additional equipment may be required before and during the confined space access.

This may include some or all of the following:

- Oxygen analysis equipment to ensure adequate oxygen levels to support breathing, but not high levels that would enhance any fire risks. This equipment may require being either single sample or continuous monitoring, depending on the risk analysis.
- Gas analysis equipment to detect hazardous levels of other gases or noxious fumes that may, or could become, present in the confined space.
- The oxygen and gas analysis results may then require the use of respiratory equipment which can range from full self-contained breathing apparatus, through airline flow equipment to simpler



respirators. There are also ranges of respirators suitable for use in dust and atmospheres containing particulate matter.

- Communication equipment may also be required in confined space applications to maintain voice contact with the remote working personnel.

As with entry and exit equipment, correct certified training is recommended for all the above equipment, as well as incorporation into the documented work practices and confined space training programs.

Submission from: Rick Millar — Rick Millar is the Technical Manager for Capital Safety Australia & New Zealand, a 3M company, and can be contacted at rmillar@capitalsafety.com. Capital Safety is a leading designer and manufacturer of height-safety and fall protection equipment. It also offers training courses, with 20 operating sites worldwide.

Capital Safety Group (Australia)
www.capitalsafety.com

NEW PRODUCTS



Wireless pressure gauge

Emerson Process Management has introduced the Rosemount WirelessHART pressure gauge, enabling remote collection of field data to keep operators updated on changing field conditions. It also improves personnel safety by reducing manual operator rounds and field exposure.

The wireless pressure gauge features a 4.5" gauge face and uses field-proven piezoresistive sensor technology to deliver pressure readings. With the flexibility to accommodate changing process conditions, it also gives up to 150x overpressure protection compared to traditional gauges, which provides for a safer field environment by using two layers of process isolation.

The product eliminates mechanical gauge common weak points by removing the components that inhibit the device from reporting or displaying pressure. It provides up to a 10-year life, reducing maintenance cost and time.

Emerson Process Management Aust P/L

www.emersonprocess.com.au



Lightweight, knitted-upper safety shoe

The Puma Safety Blaze Knit 643067 is a lightweight, knitted-upper safety shoe that has been designed to close the gap between sports and safety footwear. The upper is produced from a single thread, reducing stitching but still incorporating patterns and designs that would normally be sewn together.


Featuring a composite toecap with 200 joule impact rating, the metal-free, low-cut shoe has a knitted upper made of high-quality breathable material with scuff cap toe protection to reduce abrasion.

The durable rubber outsole is 300°C heat resistant and SRC anti-slip rated, which meets the highest standard for slip resistance in safety shoes. A shock absorbing idCell is embedded in the heel for the wearer's comfort.

The range is suitable for workers on the move, such as the transport or warehousing industries where lightweight footwear is preferred. It is certified to the Australian Standards AS/NZS 2210.3: 2009 Class 1.

Trading Downunder

www.tradingdownunder.com.au



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Up to 15%

of workplace injuries worldwide are attributable to drug & alcohol use

Around 60%

of individuals who consume drugs & alcohol at harmful levels are in full time employment

Estimated \$6 billion

per year in lost productivity through alcohol & other drugs in Australian workplaces

13% use cannabis

4% use amphetamines

1/2 of Australian workers drink at harmful levels.

Phone 1800 069 161

Email drugwipe@pathtech.com.au

Website pathtech.com.au/eliminate/





Infrared camera

Fluke Corp. has introduced the Fluke TiS75 Infrared Camera with professional-grade 320x240 pixel resolution and precise manual focusing that allows maintenance technicians to pinpoint issues with equipment and electrical systems.

The product has a long-travel focus wheel that enables fine manual focus adjustments so technicians capture in-focus images with precise measurements. It features a large 3.5" screen to help pinpoint issues while still in the field and also offers one-touch image access, which eliminates the need to scroll through a menu to view images.

The product comes with a 5 MP industrial performance digital camera and a lithium-ion smart battery with five-segment LED charge level display. Users can also store thousands of images with the 4 GB internal memory and 4 GB micro SD card.

As part of Fluke Connect, the device can transmit measurements to a smartphone or tablet for detailed analysis, which can also be uploaded to the cloud. Technicians can combine uploaded images and measurement data from multiple Fluke Connect test tools to create and share reports from the job site via email as well as collaborate in real time with other colleagues with ShareLive video calls or email.

Fluke Australia Pty Ltd
www.fluke.com.au



Logistics access control security system

The SICK LAC1xx Prime (Logistics Access Control) security system is an electronic and fully automatic system for security tasks involving virtual access control for gates and entrances.

The system is a virtual lock for the safe movement of goods, suitable for logistics specialists in securing air freight areas or logistic companies with goods of value. The product ensures cargo cannot be accessible to unauthorised persons from any stage of the supply chain, such as internal transport and storage or the handover of goods. The system's sensors can detect persons and vehicles in motion, ie, while maintaining material flow, and identify them with the help of coded transponder IDs. Intelligent filter algorithms and plausibility functions also offer maximum security against tampering.

The system features an active laser detection and reliable long-range passive/semi-passive identification (UHF) and is network-compatible or can operate as a stand-alone system. It also comes in a rugged IP67-rated enclosure.

SICK Pty Ltd
www.sick.com.au



Modular berm

UltraTech International has added the Ultra-Containment Berm Modular Model to its spill containment solutions range. Also known as the Gorilla Berm, the product uses triangular-shaped, polymer-coated foam support blocks for sidewall structure, which can be driven over repeatedly without damage.

A heavy-duty PVC material is used as the liner for the constructed spill containment area, which is a textured, slip-resistant material available in 38 and 54 mm thicknesses. The modular construction allows containment areas of any size to be configured, while the moulded-in slots on top of the foam blocks hold a rebar or steel rod to secure the material in place.

No manual set-up or take-down of the sidewalls is required. The product also complies with the EPA and SPCC spill containment regulations.

Pratt Safety Systems
www.prattsafety.com.au





Drugs & Alcohol: Is your workplace at risk?

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Medvet is a Registered Training Organisation (40379) and NATA accredited (Section 2 AS 4760 & AS/NZS 4308 including Appendix A) drug and alcohol testing company using Australian Standard compliant urine and oral fluid drug test devices and assessed and certified Collectors nationally.



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Sydney
22-23 June 2016

Sydney Showground

Melbourne
22-24 November 2016

Melbourne Convention and Exhibition Centre



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In conjunction with ARCIA, Comms Connect will convene a one-day conference in Perth, to be held on 8 March, 2016.

A series of case studies and technical presentations will be followed by training workshops, networking drinks and ARCIA's annual industry dinner.

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www.comms-connect.com.au



FIVE TOP TIPS

WHEN WORKING WITH FORKLIFT TRUCKS

Crown Equipment



No-one wants a workplace injury, let alone the death of an employee or contractor. Employees operating forklift trucks need to be both competent and compliant, and it is the employer's responsibility to ensure this is the case.

According to Anthony Keating, national manager safety, risk, environment and quality at Crown Equipment, workplace accidents, injuries and, in some cases, exposure to possible legal proceedings, can be mitigated. By applying the following tips, Crown believes you will reduce the chance of employee injury and possible legal exposure:

1. Ensure licences are current

If anyone on your site is able to step onto any forklift and start driving it, then you are at serious risk of litigation in the event of an accident. Companies need to ensure, and ultimately prove, that operators are licensed for specific vehicles. A system such as Crown InfoLink will effectively lock out operators who do not have the required certification for the vehicle they want to use. This starts by using individual access technology to allow only authorised operators to operate the equipment. It then proceeds to a 10-point safety check that ensures that they know the condition and components of the particular vehicle.

2. Capture details of all relevant incidents

Not all forklift operators are equally skilled. Some forklift operators cause more impacts than others, for example, with racking or other vehicles. Warehouse and operations managers need to know who these people are. A real-time monitoring and reporting software system such as Crown InfoLink can deliver instant alerts every time a collision occurs, detailing the name of the operator and the severity of the impact, and present this as a constantly updated data display. In this way, you will be able to identify those operators who require refresher training and maintain records of your proactive approach to WHS requirements.

3. Ensure racking meets regulations

Minor impacts with racking and shelving are inevitable in busy warehouses and distribution centres. The fact is, however, that if the racking and shelving are not designed, manufactured and installed correctly,

those minor collisions can have potentially disastrous consequences. And if the racking or shelving does not comply with applicable regulations, then you could be leaving yourself open to litigation. Crown Warehouse Solutions ensures that all its installations are compliant.

4. Keep operator training up to date

Training is not just about performance, it is also about proficiency, compliance, safety and risk mitigation. Crown Commercial Training is used by, on average, 100 operators every week of every year. Many companies believe that training is mainly for new employees or employees needing to be trained to operate new vehicles. However, general training is an essential aspect of compliant operations. If your operators do not have current licences that comply with your particular state's regulations, you are at risk of litigation in times of serious accidents.

5. Maintain easily discoverable records

In times of audits or litigation, discoverable records are essential. Too many companies today still rely on paper documentation when it comes to providing factual records. Slips of paper on a desk spike that are filed in a cabinet once a day or week are no longer enough. The time taken to review all of these, plus the fact that many incidents are either inadequately or never reported, can leave you exposed when evidence of events is required. Companies today need to have comprehensive event logs that are easily and quickly discoverable and retrievable. Crown InfoLink real-time monitoring and reporting software provides this capability.

Crown Equipment doesn't just supply forklift trucks, it is a provider of vertically integrated monitoring and compliance software, a registered training organisation for forklift licences and a designer, supplier and installer of compliant racking and shelving. To learn more about the company, go to www.crown.com.

Crown Equipment Pty Ltd
www.crown.com

REVEALING RESULTS ABOUT DRUG AND ALCOHOL TESTING

Q&A WITH IN-HOUSE TOXICOLOGIST

In this article, *Safety Solutions* asks MedVet's in-house toxicologist Steve Korkoneas about what drug and alcohol testing results are revealing about Australian workplaces and how drug and alcohol testing policies and procedures can be implemented effectively.

Does your analysis of actual drug and alcohol test results reflect the community perceptions on drug use in Australian workplaces, ie, is there really an 'ice epidemic'?

Lab results don't reflect an ice epidemic as might be expected, with no recent significant spike in laboratory-confirmed samples containing methamphetamine. This might be due to factors such as the types of industries that conduct testing — hospitality, as an example, has very high rates of drug use as well as workplace injuries, but very low rates of testing. While Medvet works with clients of all sectors, testing is more prevalent in the visibly safety-conscious industries, such as aviation, rail transportation, and mining and resources.

From your trend analysis of drug and alcohol results, what are the biggest problems facing the workplace?

Cannabis is still the leading illicit drug affecting the workforce, with as much as one in 10 people having used it in the last year, and many of those on a frequent basis. After that, the misuse of prescription medications is a growing concern. It's also important to note that alcohol is still by far the leading drug of abuse in Australia, with extensive impacts on workplace safety and productivity.

How can drug and alcohol testing policies and procedures ensure workers are 'fit for work'?

The policy and procedure specifies the requirements for working for that business or on that site. These might change between job roles or the subjective levels of how safety-critical jobs might be, but the policy sets out what the company deems appropriate conduct for its workers and contractors. It's a vital first step in keeping the workplace safe for all.

What are the main challenges that need to be addressed when implementing a drug and alcohol program in the workplace, eg, privacy concerns, type of drugs included in the testing, implementing zero tolerance policies, ensuring accuracy of the results, etc?

The first step (perhaps challenge) is to draft a comprehensive drug and alcohol policy. It needs to be clear and specific in setting out the expectations the business has for its workers. For example, is the breath alcohol limit to be zero, 0.02 or 0.05? The policy needs to reflect the standards and realities of a specific workplace, so it's rarely a one-size-fits-all situation. In drafting the policy and procedure, many companies consult a number of stakeholders so they can get the best outcome and overcome any conflicting viewpoints that might create challenges for beginning testing. The next step is to educate employees, not just on the potential harms of drugs and alcohol on their workplace, but on the specifics of the company policy — the staff need to know the expectations in order to follow them.

Privacy, drug classes, the types of testing (oral fluid or urine, for example) are all aspects of the policy and procedure to be addressed, and as long as they are handled in a constructive manner, may not present major challenges to running an effective program. Accuracy of results is usually confirmed by the accreditations and quality standards of an external agency conducting testing — if they are NATA-accredited and meet Australian Standards, the results can be accepted as reliable.

Does a drug and alcohol program need to meet any accreditation standard in Australia; and what training and educational information needs to be provided to employees?



THE FIRST STEP (PERHAPS CHALLENGE) IS TO DRAFT A COMPREHENSIVE DRUG AND ALCOHOL POLICY. IT NEEDS TO BE CLEAR AND SPECIFIC IN SETTING OUT THE EXPECTATIONS THE BUSINESS HAS FOR ITS WORKERS.

There are a number of relevant Australian Standards to which providers can (or perhaps should) be accredited by NATA (National Association of Testing Authorities): AS/NZS 4308 and AS 4760 for drug testing (urine and oral fluid, respectively) and AS 3547 for breath alcohol certified devices (screening). These Standards can confer quality and consistency of results, as they cover specimen collection through chain of custody to a laboratory. If the specific business providing on-site testing is NATA-accredited, and sends the sample to a NATA-accredited laboratory, then you should be able to trust the reliability of their results.

With regard to training, it's recommended that an external training provider be an accredited RTO, as this confirms they have the systems, processes and qualified trainers to provide the best learning outcomes for employees. When rolling out a new program, or refreshing the knowledge of your team, we recommend educating employees initially on the impacts of drugs and alcohol on the workplace, training supervisors in assessing if their team are affected by drugs or alcohol ('reasonable cause'), and if you're conducting your own testing, that the collectors are trained and certified in the appropriate collection and chain-of-custody processes.

What are the pros and cons of testing in-house versus outsourcing the testing?

When outsourcing, the business reduces the perception of bias in the selection of specimen donors. For example, Medvet can fully randomise a program, from when the site is visited to who is selected on-site, either electronically or as simply and transparently as having employees select from a bag of coloured marbles. Importantly, outsourcing also means that an accredited drug testing company conducts the tests in line with the latest

best practice — if an employee conducts tests only rarely, they may inadvertently breach chain of custody and call into question the results of a potentially positive drug test. We also note that in a privacy-conscious setting, it's often difficult for an employee to fully disclose medications, making the situation uncomfortable for them, and it's often difficult to conduct a drug test on one's own peers. An external provider reduces all of these concerns with professional impartiality. You are also hiring expertise, experience and knowledge that may not exist in the company.

What are the main features and standards that are required for equipment used in a workplace drug and alcohol testing program?

Each drug or alcohol testing device should be validated to the standards above, confirmed by a NATA-accredited laboratory that they detect the appropriate drug classes at the correct cut-off or target concentrations (which differ between drugs). Manufacturers or suppliers, including Medvet, can advise if each device has its own certificate of compliance with the Australian Standards.

What procedures should be followed if a non-negative result is detected on the equipment?

From the employer's point of view, this depends on the policy and procedure it puts in place. Many businesses might stand down the employee (with or without pay) until the confirmation sample result is provided by the laboratory. Other businesses might put the employee on light duties for that time. Once the results are returned from the lab, they can continue to follow their policy, with outcomes such as a first and final warning, forwarding the employee on to the company's Employee Assistance Program, or perhaps termination.

From the agency's perspective, a sample is securely dispatched to the laboratory for further screening or testing as necessary, and a report is provided to the employer's nominated contact for the appropriate action.

Medvet Science Pty Ltd
www.medvet.com.au



Utility cable and pipe locators

The Radiodetection RD7000+ Utility Cable and Pipe Locator family is suitable for a variety of utility industries and services, simplifying the task of locating specific pipes and cables in large underground networks.

The differences in soil, ground types and depths can make it difficult and time consuming to accurately pinpoint underground pipes and cables. The ergonomically designed and lightweight (1.9 kg) range of cable and pipe locators allows for improved safety to workers due to various features ensuring reliability and accuracy.

The RD7000SL+ is suitable for the construction industry and offers a variety of standard active frequencies and rugged construction, while the RD7000DL+ is specifically designed for the water industry.

The range also includes the RD7000PL+ for the electrical industry, which can identify cable in complex electrical networks, and the RD7000TL+ for the telecommunications industry, which is designed for large, bundled pairs of cables that require specialised location equipment to find a selected signal.

The product family is available for hire at Kennards Hire Test & Measure as part of its solutions-based plant hire service.

Kennards

www.kennards.com.au

Reach stacker assistance system

SICK has released the RAS1200, an active, high-precision assistance system based on detection for reach stackers.

Designed to reduce the risk of collisions with objects and people or overturning, it uses LMS111, laser-measuring sensors, which feature high-speed sampling technology and support the evaluation of multiple echoes of a single pulse. This allows their use in all weather conditions in industrial environments such as ports and terminals. The system has a large field of view and covers the whole rear side of the stacker.

The system provides operator assistance in critical manoeuvres such as reversing and alerts the operator automatically with an audible pre-alarm when approaching an obstacle. In addition to the alert, the system also displays the relative position the obstacle is to the vehicle and supports corrective measures for the driver. The operator's display accurately shows all relevant obstacles in object outline and in the corresponding warning zones.

SICK Pty Ltd

www.sick.com.au



Emergency pull-wire switch

The Schmersal ZQ900 series of pull-wire switches offers robust emergency stop solutions for use along the length of conveyors or similar types of installations. The die-cast body of the switch provides good protection from harsh environmental conditions, while an external watertight collar with IP65 ingress protection ensures the range is suitable for use in a variety of applications from mining conveyors to packaging systems. Integrated safety features include an emergency stop button on the front housing of the switch, giving full emergency stop functionality across the entire protected area. Wire-pull and breakage detection ensures the system remains operational at all times.

Installation is made easier by the addition of three M20 cable entries on both sides, and at the back of the switch body, while the tension can be set by a transparent indication window on the front of the housing. Up to 75 m can be covered by one single switch when using a tensioning spring. An LED indication is optional to provide status indication for installations of more than one device.

Control Logic Pty Ltd

www.control-logic.com.au



Heat protection workwear

KingGee Workwear has launched its WorkCool 2 range of workwear, designed to support personal safety and wellbeing by easing heat-related impacts during hot days on the job. The range includes polo shirts

made from 100% polyester with HyperFreeze technology, which absorbs body moisture and releases coolness to the skin to help regulate body temperature and mitigate 'heat stress'. Strategically placed mesh ventilation panels around the underarm and back of the neck also create a two-way airflow, as well as being quick drying with moisture-wicking technology. The polos are available in short or long sleeve (sizes XS-4XL).

The range also includes the WorkCool Boot (sizes 6-14). Injected with Outlast technology, the lightweight boot helps to keep workers cool on their feet with strong and breathable support. It comes with a wide-profile composite toecap, cosmo lining treated with Agion Anti-Microbial fibres and a ripstop nylon mesh upper.

The WorkCool 2 pant, also part of the range, has a modern, contoured fit with light and breathable cotton Ripstop fabric offering tear resistance. Inner thigh cooling vents contain heavy-duty mesh for added air circulation without sacrificing strength. The pant also features 10 triple-stitched multifunctional pockets with extra reinforcing.

KingGee

www.kinggee.com.au



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WHEN PERFORMANCE MATTERS MOST™

Automated screening of wastewater eliminates OHS hazards

SFC screen extractor technology was installed by CST Wastewater Solutions to improve the treatment system for the conjoined towns of Harden and Murrumburrah in NSW, and it has been shown to have the added benefit of improving OHS hazards for operators.

SFC (screen press for channel installation) allows for a much finer level of screening — 5 mm, compared to the old system at 60 mm — which has led to a significant reduction in solids in the tanks, more efficient treatment and less maintenance issues.

The technology, which is designed to lower the operational and maintenance costs of screening municipal and industrial wastewater with compacting of extracted solids, has also cut the amount of maintenance and waste that has to be handled by plant operators, reducing operational health hazards and improving OHS performance.

"The fine screening at 5 mm aperture made a significant difference within days of commissioning the screen extractor," said

Michael Bambridge, managing director, CST Wastewater Solutions.

The previous system used manually coarse raked bar screens with a 60 mm aperture, which was both operator-unfriendly and inefficient. As a result, a large amount of the fine screenings passed into the downstream sedimentation tanks and trickling filters.

"Not only are the tanks clearer and more efficient now, but the screen extractor also operates on level control and is fully automated, eliminating the previously labour-intensive operator handling of screenings," said Bambridge.

The highly durable extractor features low-speed operation and a robust shaftless spiral in high-tensile carbon steel and stainless steel AISI 304 or 316. It operates without the need for hanger, intermediate or bottom bearings and can be easily retrofitted into existing pump stations with depths up to 8 m. It allows the removal of material before pumping and can also be installed in a channel or supplied with a self-supporting tank, complete with inlet and outlet flange, and an optional bypass screen.

CST Wastewater Solutions said the SFC screen extractor is suitable for applications such as food and beverages, manufacturing and processing, and mining — where its low-maintenance and high-hygiene qualities are appreciated — as well as agribusiness and remote installations, where low maintenance and high efficiency are priorities for users who do not have specialist staff constantly available.

CST Wastewater Solutions
www.cstwastewater.com



NEW PRODUCTS

Belt conveyor covers

The Capotex Belt Conveyor Covers offer a robust, aerodynamic and lightweight solution, designed for applications where the conveyed bulk material requires protection from extreme environmental conditions or to ensure a controlled environment is maintained.

The covers are manufactured using a wide range of optional materials including galvanised, pre-lacquered and stainless steel, or aluminium and polyester fibreglass at a thickness of 0.6 mm, ensuring personal safety from moving parts, as well as suppressing dust and protecting the environment. The belts

are lightweight and easy to manipulate or mount using self-drilling screws and C-1 hinges. They are also hinged on both sides, allowing for opening and easy conveyor maintenance. Distributed by Kinder Australia, the company will supply a variety of cover types such as lateral wind-shields, fireproof systems, and arch-shaped, windowed and skirted covers.

Kinder Australia Pty Ltd
www.kinder.com.au



Hygienic hand dryer

Mitsubishi Electric Australia has added the 9th Generation Slim Model to its Jet Towel Hand Dryer series; a hygienic air jet hand dryer suitable for commercial applications.

The product comes in three colours (dark grey, super white and silver-dark grey) and is fast, yet quiet, when drying users' hands. With an air speed of about 106 m/s, the hand dryer works faster than most conventional warm air dryers, removing water from the hands in seconds. Noise is also considerably reduced to 56–59 dB (2 dB quieter than the previous model).

Antibacterial resin is now also on the entire surface of the product, not just on the hand drying areas, offering users a more hygienic experience. It also features a Water Level Window, allowing maintenance workers to check water levels and maintain the hand dryer at a high quality.

The product also employs advanced motor technology and optimum airflow, ensuring a low energy consumption from 550 to 1240 W, reducing running costs and ensuring a long operational life.

Mitsubishi Electric Australia
www.mitsubishi-electric.com.au

Telescopic boom lift

Genie has added to its Super Boom product family with the Genie SX-150 telescopic boom lift, suitable for construction, maintenance, telecommunications, gas and oil refineries, chemical maintenance and utility applications.

The boom lift reaches its full platform height of 46.33 m in less than three minutes and offers four programmable height settings (45.72, 41.15, 36.58 and 30.48 m). The product also contains a 3.05 m horizontal and vertical rotating jib that allows for quick local repositioning of the platform.

With a horizontal outreach of 24.38 m, this boom offers 21.34 m of outreach at 36.58 m of platform height. It provides unrestricted range of motion with a lift capacity of 340 kg for a maximum of two people. Weighing less than 23,000 kg with a tail swing (axles extended) of 1.07 m and ground clearance of 0.38 m, the boom lift is transportable on a standard trailer and therefore requires no oversize permits.

The boom uses an identical, field-proven chassis design as employed on other models. External sensors and manifolds are protected under steel covers that can be removed for access, while the unit uses a Deutz Tier 4 interim engine. The rotating jib worm drive also reduces backlash while increasing reliability and offers 60° of horizontal motion for increased working area.

Other features include a standard 7.5 kW onboard generator to powers tools, hydraulic hard lines to increase durability and a hydraulic filtration system to ensure cleanliness.

Genie Australia

www.genielift.com.au



It's not *all* about technology

Our research and development staff fly all over the world to maintain our place at the cutting edge of the drug & alcohol testing industry — to everything from international trade shows to law enforcement conferences.

But there's far more to a drug & alcohol safety regime than being tech savvy. Your successful in-house program is all about people, policies, and training.

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PIPELINE SAFETY

TO FEATURE AT AOG 2016

Pipeline safety and risk will be on the agenda this year at the annual Australasian Oil & Gas Exhibition and Conference (AOG 2016), to be held at the Perth Convention and Exhibition Centre from 24 to 26 February.

High-pressure gas pipelines can be the source of major accidents — as evidenced by the disastrous pipeline failures in the US in 2010. In San Bruno, California, eight people were killed and an entire suburb was destroyed when a gas transmission pipeline ruptured and the leaking gas caught fire. A few months earlier, failure of an oil line in Marshall, Michigan, resulted in a huge leak of 'dilbit' into a local river, which became one of the most expensive onshore oil spill in US history.

Key lessons can be learned from disasters such as these, which will be highlighted by Professors Andrew Hopkins from the Australian National University and Jan Hayes from RMIT University during the Pipeline Safety, Risk and Integrity stream available to conference delegates.

The Australian industry has world-leading research, education and safety standards to improve integrity and reduce risk in the oil and gas sector. Other key speakers and topics to be covered throughout this stream on the first day include:

- Melinda Hodkiewicz (The University of Western Australia), who will talk on: The Varanus Island Pipeline Explosion — what lessons for today's engineering students and industry?
 - Cheryl Cartwright (Australian Pipelines and Gas Association), who will speak on: The Pipeline Industry Taking Action on Safety
 - Klaas van Alphen (Energy Pipelines CRC), who will discuss: Implementing Safety Research: the work of the Energy Pipelines CRC
- Deemed Australasia's largest oil and gas industry event, AOG in 2015 attracted over 620 exhibitors from more than 25 countries and welcomed around 14,000 visitors.

Celebrating its 35th year, the forum will feature a theme of 'Collaboration', with over 100 experts from companies around the world providing input on how industry, government and other key stakeholders should continue to work closely together to reduce costs and improve productivity.

Industry zones are also expected to be a major attraction this year with the Health, Safety & Environment Zone in particular showcasing products, services and training for the HSE industry, including protective equipment, communications technology, hazardous area products, spill control, emergency response, safety skills training, offshore and maritime safety training, and hot work management solutions.

Ken Fitzpatrick, chair of Australia's new Oil, Gas and Energy Resources Growth Centre, will be joined by Western Australia's Minister for Commerce, the Hon. Michael Mischin, for the opening conference session on Wednesday 24 February.

Event details

What: Australasian Oil & Gas Exhibition and Conference (AOG 2016)

Where: Perth Convention and Exhibition Centre

When: 24 to 26 February 2016

Web: www.aogexpo.com.au



STAND NUMBER: F39

Safety light curtain

SICK has added to its safety light curtain range for protecting hazardous points and access points with the deTec4 Prime safety light curtain.

The product builds upon the deTec4 Core and combines the features of existing light curtain variants in one device with additional functionalities. It offers a simple cloning plug design, allowing users to configure the basic variants to suit an application's requirements using four variably interchangeable plugs. By inserting the plug, the product then switches to detection mode and the operator confirms the change, establishing the configuration.

The device complies with performance level 'e' in accordance with EN ISO 13849, and SIL3 in accordance with IEC 61508, and also comes with IP65 and IP67 ratings to operate within a temperature range of -30 to +55°C. With graduated 150 mm divisions, the product offers 13 protective field heights from 300 to 2100 mm. Available with 14 and 30 mm resolution, it can be used in applications that require a reliable way to keep fingers away from a system.

The product also has integrated LEDs and diagnostic functions. Due to its integrated alignment display with four LEDs, this ensures fast positioning of the transmitter and receiver, as well as automatic calibration of the range up to 24 m at 30 mm resolution.

A variety of accessories is available, such as mounting brackets, cables, local reset switches, mirror columns and protective field extensions.

SICK Pty Ltd

www.sick.com.au

STAND NUMBER: 323

Site continuity meter

The CS3 from Safeearth is a purpose-built milli-ohmmeter for quickly and accurately testing in-service earthing systems.

Measuring the electrical continuity between elements of earthing and lightning protection systems is a necessary verification test or condition assessment for effective EMC management. The difference between an effective and ineffective connection could be as small as a few mΩ. A 1 kA fault (or strike) through a 10 mΩ joint results in 10 kW of heat, which could immediately destroy the connection, compromising EMC or causing other hazards. The milli-ohmmeter is specifically designed to identify these latent issues, ensuring accuracy in low resistance measurements across large distances in an online facility.

The instrument accurately measures the resistance between metallic structures in an installation and can be used to identify defects before they fail under fault conditions. It can measure multiple connections in a single test, while offering high AC and DC noise rejection. Other features include: wire resistance measurement; 0.1 mΩ to 10 Ω measurement range; 200 m maximum test lead length; 3 s typical measurement time; and >5000 measurements on a single charge.

The company says the device is capable of overcoming electrical noise while accurately measuring across large distances, providing reliable continuity measurements across the full extent of an in-service earthing system at an operating plant.

Safeearth

www.safeearth.com



STAND NUMBER: 43

Safety-approved lighting solutions

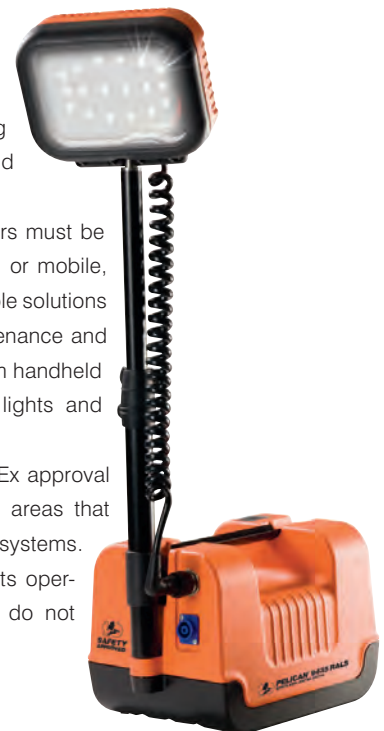
At AOG 2016, Pelican Products will be exhibiting its range of lighting solutions suitable for the oil and gas sector.

When planning refinery turnarounds, several factors must be taken into consideration, and lighting, whether fixed or mobile, should be a key priority. Pelican Products offers multiple solutions for all stages of refinery turnarounds, general maintenance and refractory services, including lighting tool ranges from handheld flashlights and head lights/lamps to lantern-style lights and portable Remote Area Lighting Systems (RALS).

The RALS are portable lighting solutions with IECEx approval that use LED technology to provide ample light in areas that are hazardous or inaccessible by generator-based systems. Rechargeable and self-contained, the RALS products operate quietly, do not require power cords and also do not emit toxic fumes.

Pelican Products Australia Pty Ltd

www.pelicanaustralia.com





STAND NUMBER: U25

Compliance software program

Brady has launched the LINK360 software program, a regulatory compliance tool for the whole of an organisation, designed to help create a sustainable safety program for energy isolation and confined spaces.

This cloud-based software, which can be used across single or multiple locations, gives managers a complete 360° view of the activities that are performed in their organisation in order to create, use and update visual information found on and around equipment and machines. The software offers users clear and easy-to-follow visually instructive procedures across three main centres: Lockout/Tagout, Confined Spaces and Reliability/Maintenance.

The software also keeps equipment visuals accurate and up-to-date through the use of alerts, notifications and reports, which assists in creating and maintaining a safe working environment, and optimum equipment performance levels.

Brady Australia Pty Ltd

www.bradyaust.com.au



STAND NUMBER: Q29

Lightweight chemical glove

The Glove Company's Chloronite chemical glove has received a rating of 11 letters under EN 374 and AS/NZS 2161.10.1 2005 for chemical protection in hand safety. The glove is also certified to >480 min to MEK and EN388 1101, and is said to have higher ratings and more passes on aggressive chemicals than the majority of chemical gloves currently available.

The chemical glove now features the proven Twin Material Matrix, offering a lightweight and high dexterity experience for users with resistance to a wide range of hazardous chemicals. The product is also hard wearing, abrasion resistant and comfortable for the user for an extended period of time, featuring 300 mm-length textured fingers for good grip.

The outer layer of chloroprene is combined with accelerator-free nitrile on the inside. Certified and tested by VIC Labs Australia, it is suitable for a variety of applications, including chemical and biological agents, fuel treatment, cargo hold insecticides, chemical handling and processing, biohazard agents, damaging solvents, oils, sulfuric/corrosive acids, as well as burning alkali.

The Glove Company Pty Ltd

www.theglovecompany.com.au



STAND NUMBER: T3

Welding helmet with auto-darkening lens

The 3M Speedglas auto-darkening welding helmet series 9100XXi will be launched at AOG 2016 by AWS Pty Ltd. The product is designed for professional welders requiring high-quality protection, comfort and performance.

The True-View lens delivers a good degree of definition and natural colour, as shades of blue and red as well as contours and edges are more visible due to improved welding lens optics. The welding lens, when combined with the peripheral Speedglas SideWindows, gives welders the largest welding lens and viewing area available from Speedglas.

The helmet also features a Grab-and-Go motion detector that senses movement and immediately activates the welding lens to the welding setting that was last used. A One-Touch external button will activate the grind mode, while another quick push reactivates the auto-darkening welding settings.

An additional Set-and-Forget feature allows welders to pre-set their most frequently used welding helmet settings. By holding down the external button, workers can seamlessly switch between different welding applications without having to re-set the welding helmet. Each memory mode has an individual setting for dark shade, switching sensitivity and dark-to-light delay. By holding down the external button, the welder can switch easily between low-amp TIG and high-amp MIG welding.

The series is available with flip-up functionality, head protection, hearing protection and powered or supplied air respiratory protection.

AWS Pty Ltd

www.awsupplies.com.au



Safety assessment service

Sick safety service solutions provide manufacturers, distributors and operating companies with a means of ensuring that their machines and systems are thoroughly assessed and equipped from the point of view of safety throughout the entire life cycle.

When it comes to implementing safety measures at machinery design level, Sick can provide support through its consulting and engineering services. With its Verified Safety seal of quality, the company provides an assurance that the services concerned have been performed and verified by certified staff in line with defined processes. All documentation, which is stored in a database, can be traced and easily retrieved at any time. Sick safety services reduce throughput times, minimise liability risks and increase competitive capacity, ensuring that the Machinery Directive (and other relevant directives and standards) can be implemented cost effectively and efficiently.

With Safexpert, the company is able to offer a structured approach for dealing with the entire process. Designers and managers alike will appreciate the systematic processes of the TÜV-certified software as they guide users through all the phases of CE marking - from risk assessment to the management of standards and documents. During each individual project it is always the latest version of the standard that is taken into account. As a result, repeat projects will still conform, as they are automatically checked to identify any changes that may have been introduced.

SICK Pty Ltd
www.sick.com.au

Video safety hat

Australian start-up company eHat is developing a network-enabled safety hard hat for field workers. Called the eHat, the hard hat includes a built-in video and audio system that transmits live feeds that can be viewed back at the office by a technical expert. The user of the eHat can make conference calls to the company's own experts or trainers and problems can therefore be solved quickly, without the need for a site visit.

The system also allows users to record video showing what the worker has been doing, which can show evidence that a task has been completed. Suitable for use by workers out in the field, the hat is designed to make it easier for users to share issues with senior management in order to get problems resolved more quickly. A working prototype is due to be completed by the end of the year, with first sales expected early next year.

eHatsystems
www.ehatsystems.com



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Image courtesy of Mainmark

EARLY DETECTION OF SURFACE MINE SUBSIDENCE

Malfunctioning machinery may be a warning sign for subsidence issues on mine sites, according to ground engineering specialist Mainmark. Often overlooked yet easy to address, subsidence can cause costly downtime and production bottlenecks if not identified early.

“Minor variances in ground level caused by subsidence can have a significant and costly impact on the smooth running of mine site machinery,” said Tom Bailey from Mainmark. “Machinery malfunction is often attributed to poor-quality or shoddy equipment when, in fact, the problem may be a result of misaligned parts caused by ground subsidence.”

Subsidence refers to the gradual caving in or sinking of an area of land. The most common causes of subsidence on a surface mine include drainage issues (caused by broken pipework or gradient that inhibits surface water run-off), poor compacted fill and mechanical vibrations which wear down the ground.

Subsidence causes machinery parts to change configuration, placing unnecessary stress on equipment and conveyor belts. Early signs of machinery misalignment include:

- unusual noise from the machinery
- abnormal wear and tear, particularly on conveyor belts due to additional impact
- excessive wear on machinery paths and bases, as a result of excessive vibrations that cause them to sink.

“Sustained over a period of time, this may cause the equipment to break down. The result is expensive repair and maintenance, decreased productivity and, in some cases, safety risks,” said Bailey.

Addressing subsidence before machinery fails is recommended for minimising the costs of downtime and, with modern ground engineering techniques, can be easier and quicker than many anticipate.

“Resin injection technology, such as Mainmark’s Uretek solution, is a proven, convenient, efficient and cost-effective alternative to traditional ground support techniques, such as underpinning. This

method injects resin into fractured, broken or unstable rock and soils at high pressure to consolidate and restabilise the ground,” said Bailey.

Fast-set resin injection can be applied in situ with minimal interruption to site operations. Depending on the scope of work, a project may be completed in a matter of days and performed outside of programmed maintenance shutdown periods, allowing for flexible scheduling.

Relevelling a stacker crane rail

A Queensland coal mine recently appointed Mainmark to relevel a rail-mounted reclaimer. One of the rail’s footing beams had sunk, causing the crane to malfunction and limiting access to coal stocks. Due to leaking water pipes, the rail footing deflected under load, causing the slab joint to sink. Mainmark’s expanding structural resin, Uretek, was injected under the rail footing beam to resupport and relevel it. The engineered resins combine chemically on entering the ground. The process is monitored by laser level to maintain control and deliver a precise result.

In just three days, Mainmark had relevelled and resupported the crane rail and supporting beam, facilitating access to a significant stock of export coal.

Mainmark said its methods strengthen and stabilise the ground with no negative impact on the environment. These specialist techniques deliver optimum results and projects can often be completed while site operations continue. Non-invasive methods mean that no excavation is required, minimising mess and hazards.

Mainmark
www.mainmark.com

Air quality monitors

Particles Plus has launched its Air Quality Monitors — particle counters that measure particle mass concentrations and total particle mass while monitoring and recording essential environmental conditions such as temperature, relative humidity, and carbon dioxide (CO₂) or total volatile organic compounds (TVOC).

The monitors employ power management features that allow the instrument to be placed into remote environments. The sleep mode function allows the instrument to sample air and then shut down all processes for a user-defined set time. After the programmed sleep time, the unit wakes up and takes the next sample, repeating this process. Depending on the amount of time between samples and settings and the sample time, the unit can run from one to two months on a single charge.

The small and lightweight range includes the stand-alone model 7301-IAQ that can be placed on a surface to monitor an environment for temporary testing, while the model 5301-IAQ is designed for fixed wall-mounted installation.

Particle & Surface Sciences Pty Ltd
www.pss.aus.net

High-pressure cylinders

BOC has launched the F3VIPR range of high-pressure cylinders for the welding industry.

The range provides welders and manufacturers with an all-in-one cylinder solution that improves productivity by eliminating hassles associated with acquiring, fitting and maintaining a separate regulator. The 33 L high-pressure cylinders come with an in-built variable integrated pressure regulator (VIPR). Usage can be tracked with a content indicator showing the amount of gas left.

The product range is shorter than a G or G2 cylinder and comes with a handle to assist with trundling for better manoeuvrability around workshops and sites. The 300 bar high pressure also allows for an increase in gas content for most F3VIPR shielding gas traffics compared to existing G size cylinders with up to 13% content increase on the 065G Argoshield Universal.

The range is now available in 18 of BOC's Argoshield, Stainshield, Alushield and Argon gas mixtures and is compatible with a standard 5/8" fitting, which means it will work with existing hoses and connections.

BOC Limited
www.boc.com.au



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LED safety light

Narva has launched the Blue Spot LED Safety Light, designed to warn pedestrians and drivers of an approaching forklift truck in busy industrial environments where alarms can get lost amongst the noise.

The safety light produces a concentrated 'blue spot' beam approximately 500 mm wide projected up to 5 m onto the floor ahead, warning others of the intended driving path. It is particularly valuable to anyone crossing from a blind angle ie, in between racking in front of an oncoming vehicle.

The 9-110 V light features two XPE 3 W LEDs and has a low current draw (0.4 A at 12 V and 0.2 A at 24 V) with a long service life. The product can be mounted to the forklift's protective roof frame, as well as other similar equipment used in materials handling applications.

Stainless steel mounting hardware is also included as standard, while the product comes with a 5-year LED Narva warranty.

Brown & Watson International

www.narva.com.au



Electronic risk management system

MiX Telematics has launched MiX Journey Management, an electronic journey risk management system that integrates with the provider's fleet management platform.

The product is designed as an alternative to paper-based systems for fleet operators who need an automated way to keep their drivers, passengers and cargo safe and secure, while reducing business risk related to journeys. Suitable for a range of industries, the system allows fleet operators to apply a business process involving journey requests, approvals and real-time monitoring. Other features include exception-based notifications and road hazard assessment.

The system enables static compliance checks to take place, involving drivers (eg, licensing and certification); passengers (eg, seatbelt allocation per vehicle); and cargo (eg, is the vehicle certified to carry the cargo in question?). Journey management data can also be viewed using cube technology and accessed for reporting on the number of journeys in a month, how many were approved and by whom, how many were deemed high-risk and how many were completed as planned.

The product also integrates fully with the MiX SafeDrive solution for managing driver and vehicle performance and safety.

MiX Telematics

www.mixtelematics.com.au



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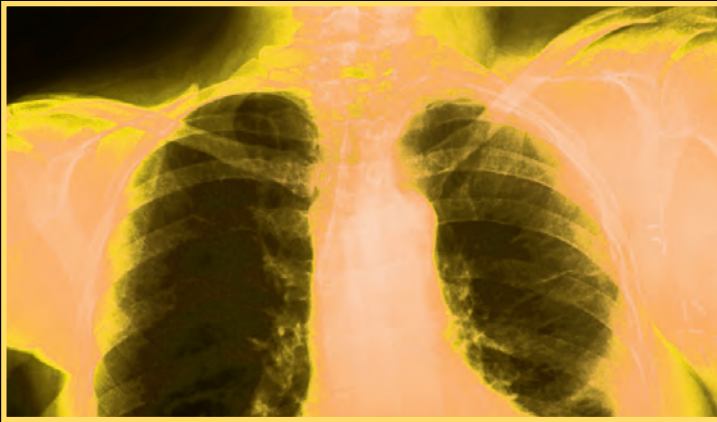
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THE RETURN OF BLACK LUNG

It has been decades since we've last seen it, but fresh cases of the deadly black lung disease have emerged in Australia — and it's thought to be just the beginning. This article looks at why the dormant condition affecting coalminers has reared its ugly head again, and what authorities are planning to do about this major workplace health crisis.

Percy Verrall became the first Australian coalminer diagnosed with black lung disease in 30 years. But he may not be the last. Up to nine cases have now been claimed to be revealed in Queensland, with others awaiting confirmation. Verrall is the face of a new campaign 'Dust to Dust; Make Black Lung History' aimed at improving health checks, dust inspections and other government regulations for the sector. The campaign is also seeking a public inquiry into the re-emergence of the disease and clear commitments from the Queensland Government.

Black lung — also known as coalminer's pneumoconiosis — is a condition caused by a build-up of coal dust in the lungs, usually after being exposed over a long period of time in poorly ventilated coal mines. It can leave its victims with shortness of breath, a severe cough, a feeling of pressure in the chest or obstructed airways. If left untreated, black lung can worsen to progressive massive fibrosis causing major damage to lung tissue, which can lead to heart problems, coughing up black mucus or blood, or even premature death.

What went wrong?

This preventable disease ceased to be a health concern for coalminers largely due to a regulatory system that was set up to monitor and detect health issues affecting workers. However, the Construction Forestry Mining Energy Union (CFMEU) believes the outbreak of new cases means the system, which included chest X-rays for workers, has not been maintained. CFMEU Queensland District President Steve Smyth said with more than one case per week being diagnosed in the last few months, the union's worst fears were starting to be realised.

"We can't put a figure on it because the regulatory system that is meant to detect problems has been asleep for decades, but it could be a big number," said Smyth.

"They haven't had specialists, who are known as 'B-readers', checking miners' X-rays, and according to data reported by mining companies themselves, dust levels have been 5–10 times the legal limit. That has to change," he said.

The union said without qualified health staff, a backlog of medicals for more than 100,000 workers are sitting in a government office unchecked, leaving coalminers with the uncertainty of possibly living with the condition. Smyth said specialists from the United States were being brought in to assess the newly emerged cases because local medical facilities lacked the capacity.

"There is a real possibility that many more current and ex-mine workers are living and working in Queensland with the disease undiagnosed. Failure to detect black lung early means that miners will continue to work in the coalfields at a devastating cost to their health," said Smyth.

Another contributing factor, according to the union, is due to individual mining companies being left to monitor dust in mines without independent checks, an issue also compounded by long breaks in between dust level checks.

Government plans

The Queensland Government has since released a five-point plan to tackle the issue. Natural Resources and Mines Minister and Acting Health Minister Dr Anthony Lynham announced in January measures to help identify and prevent the condition. The plan includes a review to improve the existing screening system for coalminers,

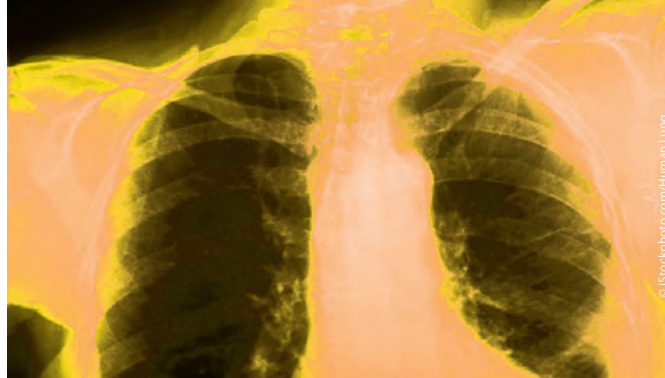
while action will also be taken on coalmines exceeding regulated limits on dust levels. Coal inspectors are reportedly working with all of Queensland's 12 operating underground coalmines, including those with coal dust issues related to longwall mining techniques, and of the 12, only one is exceeding dust limits. Directives will also remain in place until inspectors are satisfied that mines can stay within the regulated level.

Dr Lynham said improvements in how information is collected and used will also be part of the action plan to ensure all possible cases of black lung are accounted for.

"My department and Queensland Health are working on cross-checking their current records, but a priority will also be to make sure this continues into the future so no cases are missed," Dr Lynham said.

He added that investigating regulatory changes is already underway as part of the mine safety legislation review, which will provide a focus on what changes are required to ensure underground coal dust is kept at safe levels. The issue will also be placed on the agenda for the national council of mining ministers.

Smyth said he was pleased with the minister's commitment to address the issue, but reiterated the union's insistence on an



THERE IS A REAL POSSIBILITY THAT MANY MORE CURRENT AND EX-MINE WORKERS ARE LIVING AND WORKING IN QUEENSLAND WITH THE DISEASE UNDIAGNOSED.

open public inquiry to look at how the disease returned and how to better manage dust levels.

"Black Lung is the most serious health and safety condition affecting coal mineworkers in decades, and the outbreak is still escalating. While we continue to push for solutions to finally eradicate this insidious deadly disease, we are asking people who have any concerns about their health, or the health of their loved ones who have worked in the mines, to get in touch with the union so we can provide assistance," said Smyth.

For more information, go to <http://dusttodust.org.au/>.

NEW PRODUCTS

Measurable water-spray system

The Electronically Controlled Operating (ECO) Spray Premium from Australian Diversified Engineering (ADE) has been designed to deliver consistent, measurable water coverage for dust suppression on haul roads on mine sites, quarries and large construction sites.

The measurable water-spray system uses technology that measures the truck ground speed, the road surface material, road geometry and other factors to calculate and supply

a suitable amount of water to the road. The system gives mine operators the power to apply the minimum amount of water needed to ensure their haul roads are safe, as too much water will make roads slippery for heavy vehicles, and too little water may mean sprayed dust obscures the road, causing it to be closed down until the dust settles.

The company said on work sites where water typically costs approximately \$2000 per megalitre, using the water-spray system on a fleet of five trucks operating 18 hours per day can save four million litres of water per day or 1.4 billion litres per year (estimated saving of \$2.9 million).

Australian Diversified Engineering (ADE)

www.ade.net.au



Security system software

Xtralis has released an upgrade to its ADPRO XOa SecurityPLUS Remotely Programmable Operating System, part of its eGuard electronic prevention solution, with the ADPRO XOa 3.2. The software upgrade improves on its detection, verification and remote command and control capabilities against on-site security threats.

The FastTrace 2E & iFT Series Remotely Managed Multi-service Gateways (RMGs), at the core of the system, have been upgraded with additional capabilities for security threat detection and prevention. This includes improved sensitivity control helping to suppress common causes of false alarms, as well as independent zone parameters for the feature, IntrusionTrace. Five-way contrast and five-way object setting for up to 25 sensitivity levels enables precise detection, while 16 zones per camera can be configured which can create 16 independent intrusion detectors and permit the different zones to have individual detection criteria.

The software has also expanded the number of IP cameras supported and offers increased storage with support for 6 TB HDDs (total capacity 18 TB).

Xtralis Pty Ltd

www.xtralis.com

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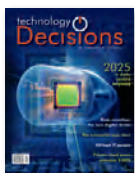


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Sporty safety glasses

Providing comfort, fit, protection and style, the uvex sportstyle safety glasses range is lightweight at only 23 g and provides 100% UV protection.

The duo component technology is designed to provide a pressure-free fit for all face shapes and the lens geometry provides a good field of vision. The range is available with uvex HC3000 anti-scratch and uvex THS permanent anti-fog coating,

making it suitable for dirty and dusty environments as well as hot, humid, steamy and rapid-change temperature areas. Made from high-tech materials with a slimline design, the range also features an adjustable nose bridge for a comfortable and customised ergonomic fit.

The side arms combine hard and soft materials, with the soft grip on the inside of the arms and brow ensuring a non-slip fit and good wearer comfort.

Approved to AS/NZS 1337.1 – medium impact protection, the range is available in clear and grey lens for indoor or outdoor applications. It is suitable

for manufacturing, construction, mining, automotive, healthcare, utilities, warehouse and food and beverage industry applications.

uvex Safety Australia Pty Ltd

www.uvex.com.au



Handwash station kit

Enware has produced three functional Type B Handwash Station Kits which meet all the requirements for performance in healthcare applications.

The kits provide a simple yet compliant solution to the requirements of the Australasian Health Facility Guidelines and meet hospital handwash guidelines. They also aid in infection control, while still being user friendly with easy maintenance.

Suitable for hospitals, health care and research facilities, all the kits use the Enware IFO Cera basin, complete with a shroud with either an eSQX touch-free electronic mixer, a Leva wall-mounted surgeon set or an Enmatic 5000 series sensor tap.

The Cera basin was designed for health care, incorporating an antiwater harbouring design with no overflow for better infection control and a fully rimmed basin for good water and splash retention. Being glazed on all surfaces also provides reduced risk of bacterial growth and enables easier cleaning, maintenance and longevity.

Enware's eSQX has a touch-free point-of-use thermostatic mixer. The technology provides a temperature-controlled, infrared-operated warm water outlet, matched to the Cera basin. Features such as flush cycles, dead-leg elimination, hands-free usage and a laminar flow outlet all aid in controlling *Legionella*, infection control and bacterial growth.

Enware Australia Pty Ltd

www.enware.com.au

Forklift safety training

Crown Commercial Training has upgraded its modules, equipment and facility for its forklift safety training offerings, including licensing and refresher courses.

The upgraded training facility is about 500 m², which offers trainees a large space to learn practical material handling experience, ranging from yard work to racking aisle work, as well as learning to work in tight spaces with narrow-aisle equipment.

The company designed and installed two stockpicking aisles so that operators undergoing narrow-aisle stockpicker training would be working in real-life conditions. A shipping container also gives operators the opportunity to practise driving in and out of extremely confined spaces.

The training facility is also suitable for workers who require refresher training to combat rack and product damage and operator inefficiency, especially for those who come into contact with more sophisticated damage reporting systems. Reporting and management tools such as Crown InfoLink offer insights into how trucks and operators are performing, and deliver real-time impact alerts from the truck to warehouse and operations managers via their desktop or digital devices.

Crown Equipment Pty Ltd

www.crown.com

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THE TRUE COST OF A WORKPLACE INJURY

A man who lost half his leg in a workplace accident described how these type of injuries often lead to hatred, heartache, family issues and a life without purpose.

It was 1994 and Basketball Paralympian gold medallist Brad Ness, then a talented 18-year-old AFL player with aspirations to play for Carlton, was working on the Rottnest Island Ferry out of Perth.

However, while they were leaving the dock, a lack of radios for communication and no documented safety protocol led to a rope catching around his ankle and tearing his foot off.

"When I woke up they'd amputated below the knee," Ness said.

He said the injury was a life changer that rippled through his family and friends, with his father blaming himself for the injury because he had sold the family farm, which led to Ness working on the boats.

"It affects people in different ways that you can't explain," he added.

Ness's own greatest struggle would be coming to terms with his injury.

"I wouldn't wish it upon anyone to have to learn how to walk again," he said.

Despite that, he was back working in the ferry's offices in 12 weeks and back on the boats in 12 months, crediting this determination for meaning and purpose as the foundation for his success as an Olympic athlete.

"The importance of getting back to work for me was huge. To go back and feel needed and feel wanted. That was the reason I rehabilitated so well," he said.

"Everyone hates going to work until they have it taken away from them."

Six years later, in 1998, Ness left his job to focus on his basketball career, which has so far taken him to four Olympic Games.

While he faced his injury with a "never give up" attitude, he said many injured in workplace accidents do not respond that way, with many going on benefits and chasing compensation, which he said is the wrong attitude.

"The longer you wait to start doing stuff the longer it takes to overcome the accident. It festers and stews," he said.

"You've still got to live and the only way you can do that is by working, really. A lot of people hang out for years for payments but by that time you've put on 20 kilos and lost your motivation. It's a long way back."



Image credit: bradness.com.au

Prevention better than cure

Ness implored organisations, OHS officers, companies and workers to take safety seriously. To hold, attend and listen to toolbox talks and document safety concerns.

"Have it all written down and sent to the right people," he said, adding that workers should not feel afraid to speak up about their safety concerns.

"Listen to, train and educate your workers. They are the ones who can ultimately stop an accident."

Brad Ness regularly gives toolbox talks around the country and can be contacted at www.braveness.com.au or info@braveness.com.au.

The SWA statistics

A 2012 Safe Work Australia report estimates the total economic cost of work-related injury and illness was around \$60.6 billion dollars in 2008/09 with the average injury costing \$99,100. The injured worker bears 74% of this cost, the community 21% and the employer 5%.

There is also the mental toll that includes the self-esteem of the injured worker along with mental health issues that include post-traumatic stress and depression along with family and relationship breakdown.

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RESOURCES



Heavy vehicle safety a step closer

A nationally consistent approach to heavy vehicle safety moved one step closer with the launch of the National Heavy Vehicle Regulator's (NHVR) revised inspection manual.

Released yesterday by South Australia's Minister for Transport and Infrastructure, Stephen Mullighan, in Adelaide, the National Heavy Vehicle Inspection Manual is expected to be the foundation towards improvement in safety across the heavy vehicle industry.

"The importance of this manual can't be overstated — it will provide a single roadworthiness reference for both authorised officers as well as heavy vehicle operators," he said.

The Minister added the revised publication is the first stage in developing a single national approach to heavy vehicle roadworthiness, which applies to all vehicles with a gross vehicle mass (GVM) or aggregate trailer mass (ATM) greater than 4.5 tonnes.

The document provides transparency about how heavy vehicles will be inspected nationally. It is easier to navigate, visually engaging and contains professional technical photographs and detailed diagrams to aid understanding.

NHVR Chief Executive Officer Sal Petrocchio said the manual is the first project to be delivered by the National Heavy Vehicle Roadworthiness Program, which is aimed at implementing consistent standards for inspections, the skills of inspectors, the criteria for which components or subsystems are inspected, and the management and clearance of defects.

It details practical information about wear, damage or change to important components and systems for in-service inspections by owners, operators and administrators in each state and territory. Heavy vehicle transport operators can now begin using the document in routine maintenance programs to improve vehicle standards compliance and help reduce vehicle downtime.

All states and territories have agreed to implement the manual into their inspection regimes by 1 July 2016. The National Heavy Vehicle Inspection Manual can be downloaded from www.nhvr.gov.au/nhvim.



Process safety guide for OHS generalists

A new guide to improve the approach to process safety will be developed for OHS generalists through a collaboration between the Safety Institute of Australia, Australian OHS Education Accreditation Board and the Institution of Chemical Engineers (IChemE) Safety Centre.

The joint project will produce a chapter on process safety for the OHS Body of Knowledge for Generalist OHS Professionals with content built around process safety competencies for generalist OHS professions.

Safety Institute of Australia CEO David Clarke welcomed the joint work on the new chapter.

"Some generalist OHS professionals have an engineering background. However, analysis of recent process engineering disasters has shown that all generalists operating in high-risk environments should have this foundation knowledge," said Clarke.

"The ability to identify issues, contribute a unique perspective and engage with process safety specialists is essential for managing safety in such environments."

The scope and content of the chapter will be produced by a technical panel, comprising process safety engineers and generalist OHS professionals.

Pam Pryor, registrar of the Australian OHS Education Accreditation Board, custodian of the OHS Body of Knowledge, said the project recognises the role of the generalist in supporting process safety and will provide a conceptual knowledge base for the generalist, including effective liaison with engineers.

Work will commence in February, with a workshop for the technical panel. The publication is planned for release in late 2016.

High risk work licences now required on mines



From 1 January 2016, any person operating or using a forklift truck or order picking forklift truck at a mine must hold the relevant high risk work licence.

According to the Department of Industry, Resources and Energy, high risk work licences for operating forklift trucks did not apply to mining or coal workplaces under the previous OHS Regulation 2001 requirements (clause 264B OHS Regulation 2001).

This continued as a transitional arrangement during the introduction of the WHS Regulation (clause 22(12) Schedule 18B WHS Regulation 2011) and held until 31 December 2015 by an exemption issued by SafeWork NSW.

The department, however, has stated this exemption will not be continued and has expired.

This was addressed in the discussion paper on the Draft Work Health and Safety (Mines) Regulation 2014 (April 2014).

SafeWork NSW issues high risk work licences. To apply, go to www.workcover.nsw.gov.au/licences-and-registrations/licences/high-risk-work-licences.



HSE and process safety to be explored at upcoming oil and gas conference

The future outlook for the oil and gas sector is promising even though Australia's biggest gas projects are now moving from construction to production phase.

As the oil and gas sector starts to see some recovery from recent fluctuations in commodities prices, HSE and process safety managers are increasingly searching for solutions to mitigate risks while companies are cutting costs and reducing personnel.

However, whether oil and gas organisations take a short- or long-term view, HSE and process safety strategies must be rigorously accurate at both the construction and production phases to ensure an incident-free environment, and to reduce vulnerability and exposure to risks.

At the 2nd annual Safety in Oil and Gas 2016 conference, being held in Brisbane from 1-3 March 2016, senior management in HSE, risk, process safety, operational excellence and technology will share their experiences on how to apply new methodologies to identify and implement effective change management strategies, embrace new technologies and inspire safety leadership.

With over 25 speakers, 18 presentations, two panel discussions and two full-day learning sessions for senior executives, this three-day event will bring together industry professionals to develop offshore and onshore process safety strategies for controlling major accident risk and achieving ongoing organisational reliability.

The event will help attendees to:

- discover new industry approaches and apply them to health safety and environment risks and process safety management strategies;
- benchmark their methodologies to identify worthy change management strategies;
- inspire leadership to engage, motivate and develop their safety team;
- empower workers and contractors to contribute to HSE excellence through improved communication;
- apply new safety and human factor practices to cope with the challenges of a new era;
- take advantage of data analysis to achieve excellence in safety management;
- enhance their abilities to detect and avoid hazard incidents through process safety methodologies.

To register for the conference, go to www.questevents.com.au/safety-oil-and-gas-2016.

Personal expectations and injury recovery outcomes

A recent study* confirmed what many of us expected, based on experience at the coalface: an injured person's expectations regarding recovery are a far better predictor than anything else for the course of their recovery. People who expect to do well generally do so, despite other 'flags' indicating a poor likelihood of return to work. People with expectations that were not as good had poorer outcomes.

Much poorer outcomes

This is not "just another study". It was well designed by one of the most respected research organisations in the world, studying a population that is demographically and culturally about as close to Australia as anything you'll find overseas. The results they found weren't just a matter of some statistical calculation.

The effect of expectations was four to five times the impact of any other predictor they studied.

So why aren't we paying better attention to expectations?

I've had significant musculoskeletal injuries more than once. The expectations that were set for me by the healthcare professionals I encountered were... guarded. Doctors, physios and others were concerned not to set expectations at a level that might lead to disappointment (or perhaps they were afraid that I'd sue if my expectations were too high).

At the same time, the television was full of ads about people who needed lawyers to make their harm right. Helpful neighbours and friends were quick with their stories, and most people remember the bad more quickly than the good.

Perhaps most difficult was the total lack of attention to fear-avoidance behaviour that had crept into my life. The doctors were done with me when the medical problem was fixed. The physical medicine practitioners stopped having time for me when I had recovered some function and showed signs of continuing my exercises.

But no-one helped me get through the fear of moving, the fear of whether I would ever be the same, or the fear of how I would cope with limitations.

I had to look outside of the health professions for help in finding assurance that it was safe to move again, and that I needn't fear re-injury if I was sensible.

There is no shortage of negative messages out in the world that will tend towards reducing the expectations people have for their lives after injury. There is no shortage of people in the business of healing who think the job is done when they have helped the body as much as they can. Those messages need to be actively countered. You may not have a counselling role, but your job is not done until you find a way, through questions, stories or shared experience, to help the injured get over the fears that they may have acquired. My helper was a trusted yoga instructor who gently helped me test my limitations. Perhaps you can play that role for someone else.

The takeaway from this study is that you can make a genuine difference in the lives of injured people, merely by guiding them to believe that they will recover and return to a life they will consider meaningful and fulfilling. That's not always easy, given all the forces sending the opposite message. But the effort spent will reward you many times over. Now there's a positive thought.

**Vocational Rehabilitation Program Evaluation: Comparison Group Challenges and the Role of Unmeasured Return-to-Work Expectations. Sears JM1, Rolle LR, Schulman BA, Wickizer TM. J Occup Rehabil. 2014 Mar 30.*



Rob Aurbach, contributor to Return to Work Matters, has spent 15 years as the chief legal and policy development officer for an American statutory compensation authority. During the last decade Rob has assisted 10 governmental entities in reviewing and revising their workers compensation systems as a consultant. In Australia, he has worked as a consultant for various commercial and governmental clients, including Comcare, the Department of Veteran's Affairs and WorkCover NSW. Rob's independent research focus has been on understanding the factors that allow some people to recover from physical and psychological injury as expected, while others do not. He has written more than 50 published articles and book chapters, and speaks internationally on rehabilitation, disability management and personal injury system design.



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