

# Plumbing SA

The Plumbing Industry Association of South Australia Inc.



September / October 2013



- South Australian Health and Medical Research Institute
- Aerated Waste Treatment Systems - All You Need To Know
- Work Health & Safety Transition Period Coming To An End





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September/ October 2013

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Cover: Artist impression of the South Australian Health and Medical Research Institute courtesy of Woods Bagot

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# Editorial

## SafeWork SA

The PIA has been advertising over the past 12 months or so that the new WHS Legislation will require all members to review current practices and processes and adjust their businesses to ensure compliance. The word about town now is that High Risk Licences will be targeted for currency which basically means if you had a High Risk Licence in the past, new rules require you to update that licence to the new standards. Details can be found on the SafeWork SA website.

SafeWork SA are commencing audits of all sites with High Risk Plants. The inspectors will also be auditing all aspects of WHS Legislation, where they find discrepancies. I strongly suggest that if you have a WHS system and it has been collecting dust on the book shelf within your office, act now to ensure the system is being used correctly.

The PIA has the BusinessMate system ready to provide you with all the tools to be compliant, if you wish to make the transition to a more comprehensive and user friendly model. We cannot stress enough the importance of compliance of WHS Legislation. Contact Paul Worthington to arrange a Businessmate demonstration.

## "United We Stand"

I wish to express my gratitude to a person that has changed the lives of people within our industry. Bruce Harris from Bruce Harris Project Management supplied PIA with a letter outlining a very sad and disappointing scenario of a PIA member that had experienced a common issue amongst our industry, poor contract arrangements leading to a lack of payments for work previously carried out and approved. The letter which was published in the last edition of our magazine received a huge response from the industry and even the

media for which Heath Hughes and family were extremely thankful for the support they received. Heath is now working back in the trade that he loves. Bruce understands the current demands of business and has supported many businesses with his experience in contractual management and industry knowledge.

It seems fitting that Bruce only recently was awarded an Honorary Fellow of the Institute of Plumbing Australia, an award that is regarded extremely highly throughout the industry.

Congratulations to Bruce and wife Judy for their ongoing support of the industry. The PIA is endeavouring to establish sound mechanisms that protect our members from such instances and will always be there to keep the industry strong and vibrant.

## NOLS

The National Occupational Licensing Scheme is now in the secondary submission stage which requires comment on the Decision RIS.

The PIA will be formulating a response to the document and will endeavour to ensure South Australian licence holders maintain their level of coverage and that it doesn't impact on current work practices. Further information on the NOLS Decision RIS is written in this edition of Plumbing SA.



Andrew Clarke  
Executive Officer



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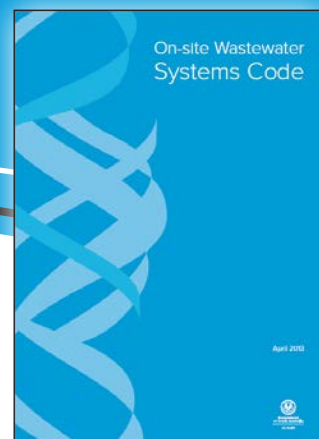


**p: 8292 4000**

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# Residential Plumbing

Changes to the legislation governing onsite wastewater systems in South Australia



Firstly, we would like to thank the Plumbing Industry Association for the opportunity to present the new legislative changes to members of the industry at the country Plumbing and Gas Roadshows held over the last few months. SA Health, together with local councils, currently regulate onsite systems and infrastructure for the treatment of wastewater in areas outside those under control of the Office of the Technical Regulator. This affects approximately 400,000 South Australians.

As all plumbers would know, the provision of sanitation where sewage is collected and transported away from premises for treatment and disposal has been more effective than any other public health intervention in reducing rates of infectious disease. As part of this process, we need to ensure that appropriate Regulations and Codes are in place so that South Australia continues to provide a healthy environment for all to enjoy.

All plumbers who operate in country areas would be familiar with the Standard for Construction, Installation and Operation of Septic Tank Systems in South Australia and its Supplements A and B or the "Yellow Books", as they were affectionately known. This code had been in place in since 1988, and together with the Public and Environmental Health (Waste Control) Regulations, formed the basis of the requirements for onsite systems in South Australia. On 16 June 2013, a new set of Regulations (The South Australian Public Health (Wastewater) Regulations 2013) and a new Prescribed Code (The On-site Wastewater Systems Code) were enacted to replace the old legislation. The new Regulations and Codes are the result of a number of years' work including consultation with industry, other regulators and local government.

## Why did we change?

- Recycling of treated wastewater has gained popularity and with this trend increased risks to families and communities were identified which were required to be addressed. These included backflow prevention and non-compliant installation problems
- New products and methodologies have been developed for wastewater collection, treatment and disposal which were not able to be accommodated in the former regulatory framework
- There needed to be a more streamlined approach to the regulation of onsite systems which could not occur under the old legislation
- Adoption of relevant Australian Standards in line with other states needed to occur to allow for a standardised approach to wastewater management throughout Australia.

## What has changed?

- The present process of applications to councils for installation of wastewater systems will continue however, there is now only one application form covering all systems (previously there were three)
- All on-site systems up to 40 equivalent persons (including greywater systems) can now be dealt with by councils. Under the old legislation, some on-site installations were approved by councils and others were processed by SA Health
- Similar to the Office of the Technical Regulator, all completed work will now require the provision of a Certificate of Compliance (COC) and an "as constructed" drawing to the relevant authority (usually the council)

and the owner/ occupier of the land where the work was undertaken within 28 days. This provides for a more uniform system of plumbing work certification across the state.

The COC books were altered some time ago to allow this to occur.

- The range of onsite system installations which can be approved has been expanded to include those found in AS/NZS 1547 2012, "Onsite Domestic Wastewater Management," however this should be read in conjunction with the Onsite Wastewater Systems Code as there are some state amendments
- Authorities presently require an engineers' site and soil assessment for septic and soakage system installation. An engineers' site assessment report will now be necessary for a further number of installations (including aerobic wastewater systems). The full requirements for the report can be found in the code. For remote areas the relevant authority should be contacted
- The previous system allowed homeowners to install their own aerobic wastewater treatment unit irrigation systems. Plumbers will now be required to install these systems and submit a COC and "as constructed" drawing for the work. It is expected that the engineers report will contain information on the irrigation system components and suitable area (the area required is now set by the assessing engineer)
- Persons who service aerobic wastewater treatment systems will be required to complete training offered through TAFESA. A two year grace period to comply with the course requirements applies commencing 16 June 2013. Further information on the course can be obtained by contacting Regency Park TAFE on 8348 4206. Manufacturers of systems may also have further requirements
- The previous system required all products used in onsite systems to be approved by SA Health before sale in South Australia. This system will continue but will also require the manufacturers to comply with the relevant Australian Standard for their unit. This brings South Australia into line with other states and allows products to be marketed throughout Australia.

Whilst there are some strengthened regulatory requirements associated with the new regulations and codes, their impact will be offset by greater health and environmental benefits and, in some cases, cost savings and greater business opportunities on a long term basis. After June 2015, only registered service agents will be able to service Aerated Waste Treatment Systems. The Department of Health will maintain the register and councils will be required to ensure the work is only carried out by a registered person. Further information and copies of the regulations and codes can be found by visiting the SA Health website at the link below, contacting the relevant local council or SA Health on 8226 7100.

<http://www.health.sa.gov.au/pehs/branches/wastewater/wastewater-management.htm>





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# National Licensing a Step Closer

The wheels of bureaucracy are forever slow but National Licensing has moved closer with the release of the Regulatory Impact Statement (RIS) with its recommendations that will set the regulations, which are the nuts and bolts of how the law will work.

Overall the status quo for the conditions of obtaining and retaining a licence have been kept with some small losses for South Australian plumbers. Queensland, Victoria and Tasmania will lose a number of endorsements and conditions that they currently require as part of their licensing regime.

Reading the Decision Regulation Impact Statement helps explain why the process takes so long. It would be false to say that the industry, the regulators and the unions have not been able to present argument for their points of view.

In South Australia, there are currently over 80 variations of a plumbing licence, add in all the other states and it is clear working through all these variables to create one set of regulations is a minefield.

The reasons these conditions were created in the first place and the vested interests of so many groups who wanted them retained or scrapped has made the process very complex. Whilst as individuals we can disagree with some aspects, the final recommendations overall have been based on two guiding principles:

1. No disadvantage
2. A reduction in the cost to the economy and individual businesses and trades.

The key recommendation is that Tier 3 Sub Option 2 be adopted. Regulators and industry lobbied for Tier 3 Sub option 1. The no disadvantage principle has been applied in not going with our preferred option. In South Australia this means the business subjects in Certificate IV will not be required.

Whilst PIA believes business skills are vital for young plumbers starting their own business to improve the likelihood of success, it means we will need to offer this training, something we have been doing increasingly in the last four years because we have recognised too many businesses need more help.

It is proposed to allow irrigators to hold a restricted plumbing licence to connect, repair and test a backflow device connected to a potable water supply. This is already allowed in Victoria and NSW. We have expressed our concerns on this but believe it is not one we will win.

The PIA welcomes the proposed endorsements on plumbing licences for:

- Backflow
- Thermostatic Mixing Valves (TMV's)
- Inspecting and Testing Fire Systems.

Queensland will lose servicing of waste treatment systems on their licences but will pick these regulations up by requiring them through health regulations.

This is the case in South Australia now, where all service agents for Aerated Waste Treatment Systems will have to be on a Department of Health list of trained service agents by June 2015. Similarly in Queensland, their fire licensing requirements introduced after the backpacker fire deaths will be enforced through separate legislation.

Stormwater work received attention by industry, regulators and unions. NOLS has agreed to look at this issue when building licences are transitioned to national licensing in the next phase. It is clear that under the no disadvantage rule that unless builders are prepared to relinquish this on their licence, we will have to present strong evidence as an industry that this work should only be done by a plumber.

We will continue to lobby for this along with the regulators when building licences are brought into national licensing. Roof plumbing will remain covered by the builder's licence in SA but Consumer & Business Services has indicated it is prepared to discuss this further.

National licensing will not require a need to demonstrate experience for plumbers progressing from Certificate III to Certificate IV. Contrary to what many believe this requirement does not exist in SA but will affect several other states.

Master plumbing organisations around Australia have been pushing for a Capstone Test at the end of an apprenticeship to ensure apprentices are competent to practice. The RIS rejects this and indicates that if training is not adequate the issue needs to be raised with ASQA for them to address.

Continuous Professional Development will at this stage be at the discretion of the licensing and regulatory bodies. Effectively they will have the power to require training as they direct.

Probity in terms of criminality and financial solvency will continue to be required for plumbing contractors with new regulations to be developed by NOLS.

# National Licensing a Step Closer

Continued...

It is proposed that the (OTSR) will be the sole agency responsible for the assessment of migrant plumbers' competency to be licensed. This is a significant area of concern and we will be lobbying for this body or another body to do this properly so that tradespeople arrive with a full understanding of what additional training they will require before being licensed.

Domestic tapwasher replacement will be able to be done by a handyman but 25mm pipe work currently permitted in South Australia, may fall back to plumbing, we are seeking clarification on this matter.

Plumbers and contractors will have the choice of 1, 3 or 5 year licence renewal periods, with no penalties for late renewals but a requirement to submit a new application if the licence has lapsed more than 90 days. Apprentices will not be required to register their apprenticeship with NOLA but will need to register the apprenticeship with Traineeship and Apprenticeship Services (TAS).

Plumbers who were licensed to only work outside proclaimed areas, will be transitioned to an appropriate licence but it is anticipated this will affect a very small number. It is proposed that Type B appliances

will only be installed by gas fitters. This will likely receive opposition from instrument fitters, some electricians and diesel mechanics. An example of this is a diesel mechanic in Queensland who services diesel pumps on remote cattle stations can also come across gas powered generators which he has been trained to service.

Under the new licensing system, he would not be able to do so and the cost for a business to pay for both a diesel mechanic and a gas fitter to go out to these locations would be prohibitive. We are unsure what the outcome of this issue will be.

The definition of gases will be expanded to include various hydrocarbons. We have also asked they consider acetylene gas and other potentially dangerous gases to remove inconsistencies and anomalies in gas licensing.

It is very important to remember that these changes will not take effect until at least late 2014. Until then, current licensing laws continue. When the new laws come into effect you will use your existing licence nationally until it is due for renewal. At that time you will be issued with a national licence which will also have a new national licence number replacing your current PGE number.

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# Can you Identify the Cause?

This CCTV image shows a deformed section of a 100mm sewer pipe beside a pier under the slab which was laid 10 years ago. There were a number of other deformations and cracks beside the one shown here. However this was the most interesting.

Two theories have been offered:

1. The original plumber did not put enough protection around the pipe prior to the slab being laid.
2. The pipe was damaged when the slab was poured.

It is excellent that the pipe did not break - but - contorted instead. It did snap in other places but this was due to the slab movement. The pipe has been bored out and re-lined by a member.

If you know how this deformation was formed we'd love to hear from you: [editor@piasa.com.au](mailto:editor@piasa.com.au)



Above: internal image of the drain



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# Commercial Plumbing

SAHMRI: South Australian Health and Medical Research Institute



Above: Artist impression of the SAMHRI facility from the River Torrens courtesy of Woods Bagot

The new \$200 million Commonwealth funded South Australian Health and Medical Research Institute (SAMHRI) is entering the final phases of construction on North Terrace.

SAMHRI will be co-located with the New Royal Adelaide Hospital (NRAH) precinct. The University of Adelaide Medical School and the University of SA Nursing School recently announced they are to relocate to new facilities on North Terrace adjacent to the SAMHRI Building and NRAH. The Dental School may also be relocated with the medical school. This will transform the western end of the City of Adelaide into a health and medical research hub.

The world class medical research facility will be a modern and striking new iconic building housing up to 675 researchers in fully flexible laboratory spaces incorporating PC2/QC2 laboratory standards.

The nine research modules will consist of 33% dry and 66% wet laboratory spaces, a small vivarium and a cyclotron for producing radio isotopes for medical research will be housed in the basement.

The facility will encourage innovation and improvement in health services which should benefit the whole community and position SA to play a leading role in medical research.

Below: Artist impression of central atrium courtesy of Woods Bagot



Above: Pipe drop closure

Managing Contractor is Hindmarsh Construction and Hindmarsh Plumbing is the plumbing contractor. Project Manager for Hindmarsh Plumbing, Luca Falcone and Site Manager, Terry Fiebigger have led a team that peaked at 18 plumbers onsite and currently has 7 plumbers onsite.

From a hydraulic point of view, the building is essentially two buildings connected by a central amenities area and multiple service risers. Plumbing services run up the building at each end with a north and south plant room, then feeds down the central amenities riser to complete the hot water loop.

There are two Potable cold water supplies to the building and one GAP water supply which provides water to the storage tanks located within the basement hydraulic plant room:

- Potable/Laboratory water is reticulated in Wefatherm pipework
- Glenelg Adelaide Pipeline (GAP) recycled water – reticulated in Lilac Wefatherm pipework
- RO Water- reticulated in Aquatherm pipework

All mains water to the facility passes through an RPZ and water softener treatment plant, before passing through individual RPZ's and break tanks for storage of water to each of the buildings water supplies. The water supply

Below: Rotex heat exchangers in the Plant Room





# Commercial Plumbing Cont...

SAHMRI: South Australian Health and Medical Research Institute



Above: Domestic Hot Water and Laboratory water pipe work

infrastructure is broken down into 3 separate systems and is discharged via separate pressure pump sets for each type of water as per the below.

- Tank 1 - 110 KL rainwater tank used for rainwater harvesting with the make up supply of GAP water to all toilets
- Tank 2- 90KL laboratory water tank will provide non potable water through a separate pipe network to all laboratories fixtures
- Tank 3- 90 KL cold water tank will provide potable water to all ablution areas and tea points.

On the roof, four banks of 30, Apricus solar evacuated tubes are located facing north to feed the two Rotex Solar Powered Heat Exchangers, which are boosted by three Bosch 32 Gas HWS. One system supplies a separate domestic hot water system and the second supplies one the non-potable hot water system for the laboratories.

Hindmarsh Plumbing engaged syfon systems to design and install the syfonic stormwater harvesting system for the building, which is stored in one of the three storage tanks located on the basement level, which is topped up by GAP water when resources are low. All laboratory waste is treated via lab waste neutralisers prior to entering SA Water's infrastructure. Freshwater Systems supplied seven RO water plants at multiple levels on the project.

Each RO unit can provide upto 150 litres of RO water per hour. In the laboratories sink facilities with custom made Enware tapware and fume cupboards are installed throughout the building. Pipe work comes down the wall of each laboratory to the sink and they are covered by a stainless steel Pipe Drop Closure or cowl so that pipework is readily accessible for upgrade, replacement or even to add additional types of water in the future.

In the basement, the vivarium areas are all fully sealed to enable the area to be fumigated. This includes termination of hydraulic services by way of a stainless steel wall, which houses water and waste provision, which need to be sealed with a polyurethane silicone sealant being used around all of the light fittings, powerpoints etc in each room to withstand a test pressure of 200 pascals or 20kpa.



Above: Emergency shower



Above: Freshwater water softeners

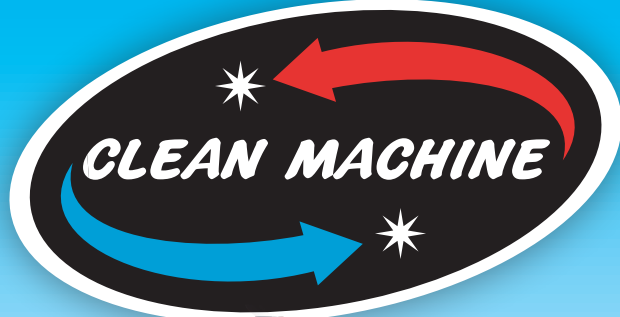
An extensive range of commercial cleaning equipment has also been installed in the basement to sterilise and clean laboratory equipment consisting of autoclaves, cabinet washers and sterilisers. Toilet facilities all have Caroma sanitary ware and Enware is predominantly used throughout the labs. Tea points are located throughout the building which all comply with AS1428.1.

Hindmarsh Plumbing undertook all co-ordination and construction documentation using the Autodesk Revit platform. Collaborating with the major service trades (Mechanical, Fire and Electrical) in three dimensional virtual models. The experience gained on this project has ensured they are a leader in the integration of BIM and three dimensional modelling practices for design, construction and as built capture of pipe work services.

Although challenging at times they have found that it has improved productivity in their work and minimised lost time for the onsite operational team. Hindmarsh Plumbing are to be congratulated for their work on what will certainly become one of the best new architectural designs to be constructed in Adelaide for a long time.



Above: Chris Day (2nd year apprentice) installing evacuating tubes on the roof



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# Drain Cleaning

Some members who do a significant amount of drain cleaning in their business, have expressed some concerns about the level of knowledge and expertise some plumbers seem to have in drain cleaning. We asked them to put some of their ideas on paper. To clear a drain, the best options are:

1. A hydrojet clears roots, sludge, fats, excess paper etc. It clears it all.
2. Next best: Cable machine, pretty much best for clearing roots these days. Not too many plumbers would waste their time on sludge or fat with a Marco.

Home owners who have drains which have been cleaned with a cable machine that remain clear for 12+ months are wasting their money paying for hydro jetting because there is no benefit for the extra expense.

All home owners should be advised by their plumber not to use Draino or any supermarket/hardware rubbish, which can solidify in the sewer line resulting in the line requiring replacement.

It's better to save the money on chemicals and put it towards a plumber to clear the drain properly.

## Smells

Where a smell is persistent but all the other simple methods have not worked then the only solution is to clear it with a machine.

- A vinegar and Bi Carbonate of soda solution is the only chemical most plumbers who were consulted for this article would advise a home owner to use.
- Cleaning the floor trap riser with a toilet brush and sink traps with a baby bottle brush mechanically removes much of the cause of bad smells. Vinegar and Bi Carbonate of soda solution will help remove all smell. Plumbers who contributed to this article are not big fans of pulling up traps unless they have to, they have a predisposition to leaking afterward.
- Push/pull plunger for sinks



- Products such as Mo-Flo for solidified material such as urinal calcium, then machine them. (CAUTION: Momar Mo-Flo and similar products are basically 90% acid. It can melt PVC drains and can blow back at you if used incorrectly or comes into contact with other chemicals that people don't want to tell you they have put down the drain.

The photos in this article are of a Momar affected drain. The rental property was reported to have a blocked drain, the original cause of blockage is unknown.

There are IO's either side of the building because the drain goes under the building. The IO's were not dug up by the plumber who was first called to site to clear the blockage.

An engineer's report has stated that the cause of the damage to the drain was intense heat, drawing the conclusion that a large volume of Momar was used in large quantities, in an attempt to clear the drain, by the attending plumbers for the land agent.



Above: Drains irreparably damaged by chemicals

Chemicals are not a front line solution for clearing drains. (Terry exposed both these IO's when going to replace the damaged sections of drain).

Customers will lie to you about putting stuff down their drain, they think that they will get into trouble for it, they do not see the safety issues for the plumber.

MoFlo can crack ceramic, wall hung urinals etc. The PIA reported last year on a plumber using Momar to kill tree roots, received very serious leg burns requiring plastic surgery to fix.

Members have expressed concerns that some unscrupulous plumbers go along and try to up sell the use of a hydrojet or even a full drain replacement when it is not necessary.

All this does is give the entire industry a bad name. The licensing body needs to look at this issue more closely.



# Drain Cleaning Cont...



## Storm Water

Very few would still use a Marco here, although it does still happen, most experienced plumbers would use or call for a Jet. When hydrojetting, it is always best practice to jet up stream, as you will pull the debris back down to the point of entry.

A line can be jetted downstream, however a build up of liquid behind the jet or a flush of the line would need to occur.

Jetting through a floor trap is possible, however if roots are causing the blockage you will not effectively clear them, it will need to be dug up. Hydrochloric is used to remove calcium from pans caused by the, "if it's yellow let it mellow" philosophy.

Fill the pan, let it rest for 10-15 minutes, scrub with a toilet brush and then flush. The pan can come up looking as good as new. That being said, chemical cleaners should only be used as a last resort. Nearly all of the plumbers who contributed to this article stated that it has been quite a while since they have had to use any chemicals in drain cleaning.

A final reminder, that manufacturer's advice must be followed when septic tanks and Aerated Waste Treatment Systems are in use. The PIA would love to publish any other handy tips you have to make members work easier and keep customers happy.



Right: Fat and grease blocking waste trap

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# The Great Australian Puddle Flange Mystery



Several members have reported being called out to address smelly drains or water damage emanating from floor grates over puddle flanges.

It has emerged that the problem is related to poorly or incorrectly installed puddle flanges. Puddle flanges are not covered under AS/NZS 3500 but under the National Construct Code (NCC). This work is predominantly carried out by the tiler.

We are currently lobbying the government to have this type of work included in AS/NZS 3500 and the grate installations carried out or overseen and signed off by an appropriately licensed and trained plumbing contractor.

One of our members Richard from Adelaide 5 Star Plumbing who carries out predominantly maintenance work, is seeing and dealing with this problem regularly, has reported that the lugged teeth on a puddle flange which are designed to receive a long tailed grate and allow a small gap for cubicle leaks to escape to drain are being ignored.

Increasingly we are seeing evidence that short tail grates are being installed on a "shoulder" of glue or cement which in many cases is causing the shower screed to become water

logged and damaged, and some long tail grates are being cut too short also!

Above is a series of pictures from Richard on how they are dealing with an influx of grate installation problems with the retro fit of the proper type of installation. Compounding the problem of cheap chrome grates going black from mould.

Richard has found a supplier of stainless steel grates with an easy cut insert for height adjustment. Much more durable and not a great deal more expensive than the cheap chrome plates.

Richard encountered 6 instances of incorrectly installed puddle flanges with odour and leak problems in June and July alone.

Many insurance policies do not cover water proofing failure or incorrect installations, and in many cases the heart ache is left on the home owners shoulders for repairs or worse.

In a majority of cases, the longer this type of installation goes unnoticed, the longer it goes on the greater the potential damage.

# Licensing

## What licence do I need?

Most people know that any plumbing or gas fitting work must be done by a licensed plumber or gas fitter. There are different types of licences though and some people also do work that is more than their core trade. Consumer and Business Services (CBS) provides guidance in relation to the types of licenses required for different types of work.

### Personally performing plumbing or gas fitting work

Anyone who personally performs plumbing work must be registered as a plumbing worker. Gas fitters require a separate gas fitting workers registration. A worker's registration is required even if a person does work on their own home or without charge. There are different conditions that can be placed on a registration to restrict the scope of work a person can do and these are listed on the back of the registration card and on the CBS licensing public register.

### Contracting for plumbing or gas fitting work

A worker's registration allows a person to personally perform regulated work but not to carry on a business to contract for this work. Anyone carrying on a plumbing business must be licensed as a plumbing contractor or hold a licence as a building work contractor (with a condition to cover plumbing). Similarly a person must be a licensed gas fitting contractor or building work contractor to carry on business as a gas fitter. There are different conditions that can be placed on contractors licences.

It's important to also note:

- All partners in a partnership must hold their own contractors licence
- A company must hold its own contractors licence in the company name
- A subcontractor must hold a contractors licence.

A contractor's licence does not allow the person to personally perform the work - they must also hold a workers registration.

### Contracting for bathroom renovations

Some plumbers move on to do broader work, such as full bathroom renovations. Although a plumber can remove and replace a few tiles under their plumbers licence as part of a plumbing repair, a building work contractor's licence is needed if a person is contracting for bathroom renovations.

This work can involve other trades and skills and a building work contractor's licence is needed, even if the other trade work will be subcontracted.

If you hold a building work contractor's licence, you must have an approved registered building work supervisor to supervise the work. Plumbers with knowledge and experience in bathroom renovations often apply for this type of registration.

### Installation of heaters

During the winter months, CBS receives queries regarding the appropriate licensing requirements for the installation of heating. All air conditioning installations and the installation of wood heaters is building work, and a building work contractor's licence is required.

### Building indemnity insurance

If you perform any residential building work with a contract value of \$12,000 or more and that requires council approval, you must take out a contract of building indemnity insurance before commencing the work.

This insurance protects the owner in cases of builder insolvency. The council will require evidence of this insurance when assessing an application for approval of the proposed work.

The above is a guide only. Contact CBS on 131 882 if you would like advice on your particular circumstances. There is also additional information available at [www.cbs.sa.gov.au](http://www.cbs.sa.gov.au)

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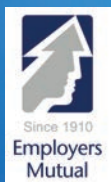
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## Part 5 Now Available Online

The PIA has subscribed to the recently released AS/NZS 3500 Part 5 which covers Residential Construction Regulations.

They are available online in the Members Area of the PIA Website, along with the rest of AS/NZS 3500 and AS/NZS 5601 standards. Both standards to purchase as hard copies now cost about \$950.00 in total.

If like me you balk at paying such an outrageous amount to purchase a standard, you are required to comply with, now is the time to go out and buy a tablet or two.

Not only can you buy between 1 and 3 tablets for the same money, you can also use the tablets for lots of other things.

As they say in the adverts, "But there's more ...." As a searchable PDF you can find what you are looking for simply by holding down Control F on windows applications and Command F on Apple applications and the search tool opens.

You also don't need to go to the PIA website each time but save the PDF standards to your computer tablet. The only down side is that the PDF's are locked to prevent printing.

Considering the \$950.00 you can put towards tablets and all the things you can do with one, it makes sense to use this PIA service and technology to your advantage.

## Plumbing Code of Australia

The PIA has now placed the Plumbing Code of Australia on the PIA website alongside the standards.

We have only taken out one licence initially and will monitor demand to determine if we need to increase the number of licences.

Again the cost of buying a hard copy is equal to buying a tablet.

## Plumbing and Gas Roadshow

The 2013 Plumbing and Gas Roadshows wrapped up in early June with pleasing attendances.

Feedback was very good with attendees experiencing a very information rich session on gas regulations, plumbing regulations, problems in each area and a presentation from the Department of Health on the new Aerated Waste Treatment Regulations which are covered on page 4 in this issue.

## FBT and Car leasing

The changes to the Fringe Benefits Tax (FBT) calculation will have far reaching consequences, not only for the car industry as a whole but business fleets everywhere.

These changes will affect any new vehicle lease, contract or purchase from the 16 July 2013 onward with all business related vehicle use needing to be recorded in a log book from 1st April 2014 (the start of the new FBT year).

FBT, from that date, will be paid on the actual personal usage of each vehicle rather than the current 20%. What this means for business related vehicles purchased or leased from today onward is that more FBT will be payable if a vehicle is used more than 20% for personal use (ie used less than 80% of the time for business use).

We should stress that vehicles either leased or purchased prior to 16th July 2013 will not be affected by the new rules unless a 'material change' is made to the lease or vehicle usage.

Whilst these changes have taken affect from 16 July 2013, they still need to be passed through parliament along with the other reforms to the carbon tax, so may not be legislated either in their current form or at all in the future. Vans and trucks will remain unaffected by the changes.





# Legal Advice

## Is the Security of Payment legislation working?

The Building and Construction Industry Security of Payment Act 2009 (SA) (the Act) has been in operation for nearly two years. It began on 10 December 2011.

Whilst evidence suggests that subcontractors and suppliers in South Australia were slow to start using the Act, it is being adopted more and more within the industry.

The Act was introduced to address a common problem in the construction industry – namely, contractors not paying their subcontractors and suppliers until they are paid, even where there is a contractual right to payment.

The Act gives the person who carries out construction work or supplies related goods and services, a statutory right to progress payments. It is designed to be a quick and effective means of getting paid.

### How Does the Act Work?

The Act prescribes how and when a subcontractor or supplier, (the “claimant”), is to issue a payment claim under the Act.

For example, a payment claim must state: “This is a payment claim made under the Building and Construction Industry Security of Payment Act 2009 (SA)”.

The Act provides the recipient of a payment claim, (the “respondent”), a strict time frame in which to either:

1. pay the amount in the payment claim, or
2. provide a payment schedule, setting out the reasons why it is only obliged to pay less than the payment claim.

The claimant can then refer the matter to adjudication for determination.

If a respondent does not pay the payment claim because it disputes the amount claimed, but fails to serve a payment schedule in time, the claimant is entitled to the full amount of its payment claim.

In that case, the claimant can enforce the payment either in court or through adjudication. In either case, the respondent is not entitled to raise a defence or cross-claim.

If a claimant intends to refer a matter to adjudication, it must notify the respondent of its intention within twenty business days of due date for payment.

### Are Claimants Taking Advantage of the Legislation?

As at 31 March 2013, in South Australia, 56 adjudications were determined and over \$1.6m was awarded to claimants.

The reports are that whilst applications for adjudication were slow to start, they are picking up with increasingly more disputes being referred to adjudication. This suggests more and more subcontractors and suppliers are taking advantage of the Act.

Although there does seem to be reluctance within the construction industry to use the Act.

It has been suggested that subcontractors and suppliers are wary of using the Act in fear of not being awarded future work by ‘larger’ contractors.

This is of particular concern in the current economic climate.

Another bar to using the Act appears to be a lack of understanding on how to use it! The Act is very strict in its operation and is not very user-friendly.

It must be strictly complied with in order to be triggered in the first place. In order for claimants and respondents to exercise their respective rights under the Act, they must each comply with all the provisions of the Act including all timeframes.

We envisage that as it becomes more widely understood the Act will be utilised with greater confidence and frequency.

If you require any advice on the Act and its operation please contact one of our construction team members at Lynch Meyer.

#### Cathy Mayfield

Partner

#### Lynch Meyer Lawyers

T > 8236 7654

E > cmayfield@lynchmeyer.com.au



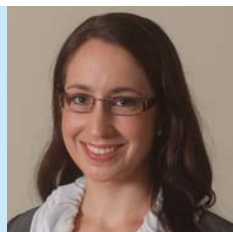
#### Michelle Simmons

Solicitor

#### Lynch Meyer Lawyers

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# Legal Advice Cont...

Sole trader v Proprietary Limited Company: Have you considered the work health and safety risks?



06 August 2013

Selecting the right structure for your business can be confusing. There are a number of different structures that can be used to carry on a business. Choosing the most suitable business structure has long been the domain of accountants and financial advisers who take into account the economic and operational needs of the business. Although this is still largely the case, many business owners are now being forced to consider their business needs from a work, health and safety (WHS) perspective. This involves an examination of the advantages and disadvantages between a sole trader and a proprietary limited company (company).

## General distinction between sole traders and companies

A sole trader is a business entity owned and run by the same individual. There is no legal distinction between the owner and the business. In contrast, a company is privately owned and is a separate legal entity distinct from its owner(s).

From a legal perspective, the crucial disadvantage for sole traders is that the personal liability of the sole proprietor is generally unlimited. As such, in a legal claim against the business the personal assets of the owner can be at risk if sole trader's insurance does not cover the extent of the liability. The liability of a company is strictly limited to the assets held in the company's name.

## WHS context

If the business of a sole trader leads to a safety prosecution then the sole trader is prosecuted as an individual. There is no distinction between the individual and the business. This means that the individual and not the sole trading entity will carry the criminal conviction for the WHS breach. In contrast, if the business of a company is prosecuted then the company itself will be the subject of the legal action. However, it is still possible for individual officers or workers of the company to be prosecuted for safety breaches.

## SPARKE HELMORE LAWYERS

In today's climate of stringent WHS obligations and higher penalties, it is easy to see why greater protection from liability has become a dominant consideration. This is particularly in light of the Industrial Magistrates' Court of South Australia recently handing down its highest ever fine of \$200,000 in the matter of Hillman v Ferro Con (SA) Pty Ltd.

Although the financial and tax implications of a particular business structure are important considerations, it is similarly important to turn your mind to the type and severity of risks associated with your business and understand the extent of potential liability that may arise.

For most businesses subject to WHS laws, the most suitable structure will be that which maximises productivity, profits and, most importantly, protection from liability. This article serves as a guide to some of the issues that you must consider when deciding how to operate your business. It is in no way intended to be legal advice. We recommend seeking professional advice before making any decisions with respect to business structures.

**Luke Holland**  
Partner

**Sparke Helmore Lawyers**  
T > 08 8415 9875  
E > [luke.holland@sparke.com.au](mailto:luke.holland@sparke.com.au)





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## **FREE WHS Seminar offer!**

**Call or register online for a free Work Health & Safety Seminar we are planning to assist Members with the new Work Health & Safety Legislation.**





# Apprentices



Left to Right: Katrina Barnes, Mary Asikas  
Principal Hallett Cove R-12 and Oakley Abela



Left to Right: Brock Syme, Ivan Lipovac,  
Craig Smith & David Butcher

## Recent Events

On 27<sup>th</sup> June, Peter Wheatland the Technology Coordinator and Plumbing Plus Instructor at Hallett Cove R-12 School hosted a visit from a group of employers. The afternoon was organised to showcase the excellent purpose built facilities, samples of learning projects and the high quality students that are undertaking the Doorways to Construction Plumbing Plus Program with support from PIA as the Registered Training Organisation. Visitors included Katrina Barnes and Oakley Abela from Hindmarsh Plumbing, and Craig Smith from Jordan Plumbing.

## Commencements

Tariq Elthair, James Elvey, Todd Eshmade, Matthew Ferraro, Bernard Flatman, Patrick Harris, Mitchell Mead, Michael Power, Adrian Rendziak, Matthew Shanks, Aaron Trollope, Liam Tucker, Ben Schulz, Jacob Green and Matthew Turner.

## Completions

Matt Tilley completed in July having been hosted by Adelaide Plumbing and Civil for all his apprenticeship. Matt will continue with Adelaide Plumbing and Civil. Congratulations to Matt and Adelaide Plumbing and Civil.

## Safety

Congratulations to all our staff and apprentices for remaining injury and incident free over the last few months. This is a reminder to remain vigilant and enjoy the benefits, and to watch out for your work colleagues safety as well.

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# SAFE WORK

## What is driving the new Work Health Safety Laws



As I go around demonstrating BusinessMate, I am always constantly asked what is driving this legislation? The PIA has written about the rationale driving these changes before but it is important to address them for those who are only now becoming aware of the changes they need to make to their business.

The simple answer is money but there are other imperatives. Politicians in a western society will always act when there is a loss of life. The classic example of this was the Garibaldi food poisoning tragedy, where a manufacturer's poor practices led to deaths and children left seriously ill with organ failure, including kidney failure.

The processed meat industry is today a much safer industry as a result of this terrible case and the legislative changes that resulted.

Look at our presence in Afghanistan and Iraq. Every soldier's death increases the pressure on the government as to how long we will remain involved. In the past I have commented that it will unfortunately take a death from poor plumbing for politicians to re-strengthen plumbing regulation. I hope I am wrong but time will decide this issue.

The other driver is the cost. In 1995, an Industry Commission study estimated that only 25 per cent of the total cost of work related injury and disease was due to the direct costs of work-related incidents.

The remaining 75 per cent was accounted for by indirect costs such as lost productivity, loss of income, families forced on to social security and quality of life loss.

Using the 1992–93 financial year Australian National Accounts estimate of \$4.83 billion in payments to households from workers' compensation schemes as an estimate of direct costs, led to an estimate of total cost of work-related injury and disease of \$20 billion for the 1992–93 financial year.

Extrapolate these figures to today and the cost is reaching \$40 billion. The argument has been put that we can't compete against developing countries because of the cost WHS adds to doing business. True in part but if we can significantly reduce workplace harm then the overall costs will decline and we move back into a more competitive position.

Or we can scrap social security and Workcover. If Workcover payments can be halved for instance then the cost of being safe will be counter balanced. The other point is do you want to live like a developing country where incapacitated workers or dead workers families survive by begging because there is no support?

We all saw the terrible tragedy in Bangla Desh where textile workers were killed in their building, which collapsed. What compensation do they deserve and what if any will they receive?

The other thing to remember is that despite all the petty wrangling between politicians there is generally bi partisan support to improve WHS because politicians who stand idly by while people die, tend not to get re-elected and economists point out that by improving safety money can be saved.

Safework Australia is charged with developing the outcomes, targets and reporting on WHS and these goals are endorsed by the Council of Australian Governments (COAG) which includes the Commonwealth and all state government 2022 outcomes, targets, progress and reporting The Australian Work Health and Safety Strategy 2012-2022 sets four outcomes, three national targets and will be reported on annually with a progress review in 2017.





# SAFE WORK

## What is driving the new Work Health Safety Laws



### Outcomes

The strategy sets out four outcomes to achieve the vision of healthy, safe and productive working lives by 2022:

- Reduced incidence of work-related death, injury and illness, achieved by
- Reduced exposure to hazards and risks, using
- Improved hazard controls, and supported by
- An improved national work health and safety infrastructure.

### Targets and performance indicators

The strategy sets three targets to measure the progress towards achieving the vision:

- a reduction of at least 20 per cent in the number of worker fatalities due to injury
- a reduction of at least 30 per cent in the incidence rate of claims resulting in one or more weeks off work, and
- a reduction of at least 30 per cent in the incidence rate of claims for musculoskeletal disorders resulting in one or more weeks off work.

### Annual reporting

An annual report on the strategy will be published.

### 2017 review

The strategy will be reviewed in 2017 to ensure it continues to generate sustained improvements

### Priority industries

The following broad industry groups have been identified as national priorities for prevention activities:

- Agriculture
- Road transport
- Manufacturing
- Construction
- Accommodation and food services
- Public administration and safety
- Health care and social assistance.

In 2012, these industries were found to have high numbers and rates of injury and/or fatalities, or were by their nature hazardous.

The national industry priorities focus attention and activities on identifying the cause of injury and illness and on working to find and implement solutions. In order to focus attention on areas that require the greatest improvement, relevant sub sectors from within these broad industry groups will be chosen by jurisdictions during specified periods during the life of the strategy.

The agriculture and road freight transport industries will be the focus of efforts in all jurisdictions during the first five years of the Australian strategy to reduce the high numbers of fatalities in these industries. Information and resources are being developed for each priority industry.

### Priority disorders

The following work-related disorder categories are identified as national priorities in the first five years of the Australian strategy:

- Musculoskeletal disorders
- Mental disorders
- Cancers (including skin cancer)
- Asthma
- Contact dermatitis
- Noise-induced hearing loss.

They have been chosen based on the severity of consequences for workers, the number of workers estimated to be affected and the existence of known prevention options. Information and resources are being developed for each priority disorder. In examining the performance indicators, priority industries and priority disorders it is easy to see that the construction industry has to make significant improvements to achieve the targets.

The PIA has taken a proactive position on WHS. We believe the impetus for change is too great to resist and whilst we will scrutinise and lobby against what is unreasonable and unjustified we believe it is more important to achieve change at minimal cost, drive the cost of workplace injury and death down and ensure those cost savings are passed on to members.

More importantly we need to ensure that our members are able to enjoy safe, productive lives with minimal risk.



# SAFE WORK

## Confined Spaces



Managing the risks associated with confined spaces in workplaces is required under section 274 of the Work Health and Safety Act (WHS Act). You need to ensure your business is compliant with all Codes of Practice or are achieved by following an acceptable alternative method.

The Confined Spaces Code of Practice is 33 pages long so we have just highlighted some key sections. The Code of Practice is available from the PIA website or from Safework Australia's website.

Alternatively, BusinessMate incorporates all of the Codes of Practice in the policies, Safe Work Method Statements (SWMS) and Standard Work Procedures (SWP's). Call the PIA to arrange a demonstration.

A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code.

Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.

Codes of practice are admissible in court proceedings under the WHS Act and Regulations. Courts may regard a code of practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

Confined spaces pose dangers because they are usually not designed to be areas where people work. Confined spaces often have poor ventilation which allows hazardous atmospheres to quickly develop, especially if the space is small.

The hazards are not always obvious and may change from one entry into the confined space to the next.

The risks of working in confined spaces include:

- Loss of consciousness, impairment, injury or death due to the immediate effects of airborne contaminants
- Fire or explosion from the ignition of flammable contaminants
- Difficulty rescuing and treating an injured or unconscious person
- Asphyxiation resulting from oxygen deficiency or immersion in a free-flowing material, such as liquids, grain, sand, fertiliser or water.

Confined spaces are commonly found in vats, tanks, pits, pipes, ducts, flues, chimneys, silos, containers, pressure vessels, underground sewers, wet or dry wells, shafts, trenches, tunnels or other similar enclosed or partially enclosed structures, when these examples meet the definition of a confined space in the WHS Regulations.

Trenches are not considered confined spaces based on the risk of structural collapse alone, but will be confined spaces if they potentially contain concentrations of airborne contaminants that may cause impairment, loss of consciousness or asphyxiation.

### Who has health and safety duties in relation to a confined space?

- A person conducting a business or undertaking
- Designers, manufacturers and suppliers of plant or structures
- Officers
- Workers

### Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

- Identify reasonably foreseeable hazards that could give rise to the risk
- Determine whether a space is a confined space
- Eliminating or minimising the need to enter a confined space
- Entry and exit

### Regulation 34: In managing the risks associated with a confined space, the person conducting the business or undertaking must identify reasonably foreseeable hazards that could give rise to the risk.

- *Restricted entry or exit*
- *Harmful airborne contaminants*
- *Unsafe oxygen level*
- *Fire and explosion*
- *Engulfment*
- *Uncontrolled introduction of substances*  
The uncontrolled introduction of substances such as steam, water or other liquids, gases or solids may result in drowning, being overcome by fumes or other harm depending on the nature of the substance
- *Biological hazards*
- *Mechanical hazards*
- *Electrical hazards*
- *Skin contact with hazardous substances*
- *Noise*
- *Manual tasks*
- *Radiation*



# SAFE WORK

## Confined Spaces Cont...

- *Environmental hazards* - Examples of environmental hazards include:
  - Heat or cold stress arising from the work, process or conditions
  - Slips, trips and falls arising from slippery surfaces or obstacles
  - Inadequate lighting
- *Hazards outside the confined space*
  - Where the confined space has a vertical opening, there is a risk that people could fall in
  - Traffic hazards
  - Contamination of the confined space from external sources
- *Additional physiological and psychological demands.*

### How to Assess the Risks

**Regulation 66:** A person conducting a business or undertaking must assess health and safety risks associated with the identified hazards of the confined space. The risk assessment for a confined space must be undertaken by a competent person and be recorded in writing. The risk assessment must be reviewed and revised whenever any risks change.

**Regulation 77:** A copy must be kept for 28 days, or if a notifiable incident occurs in connection with the work to which the assessment relates, for 2 years after the incident occurs.

### Atmospheric Testing and Monitoring

**Regulation 50:** A person conducting a business or undertaking must ensure that air monitoring is carried out to determine the airborne concentration of a substance or mixture to which an exposure standard applies if:

- there is uncertainty whether or not the airborne concentration of the substance or mixture exceeds the relevant exposure standard, or
- monitoring is necessary to determine whether there is a risk to health.

Any air monitoring in a confined space should be carried out by a competent person using a suitable, correctly calibrated gas detector. It may be necessary to test the atmosphere for:

- oxygen content
- airborne concentration of flammable contaminants
- airborne concentration of potentially harmful contaminants (for example, hydrogen sulphide and carbon monoxide ).

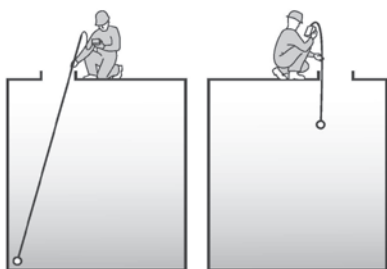


Figure 2: Atmospheric testing of remote regions and different levels within the confined space.

A confined space entry permit may be used as a record of the risk assessment.

### How to Control the Risks

The most important step in the risk management process involves controlling risks by eliminating them so far as is reasonably practicable, or if that is not possible, by minimising the risks so far as is reasonably practicable.

**Regulation 66:** In managing risks associated with a confined space, all relevant matters must be considered, including:

- whether the work can be carried out without the need to enter the confined space
- the nature of a confined space
- if the hazard is associated with any airborne contaminant or unsafe level of oxygen
- the work to be carried out in the confined space, the range of methods by which the work can be carried out, and the proposed method
- the type of emergency procedures required.

### Entry Permits

**Regulation 67:** A person conducting a business or undertaking must not allow or direct a worker to enter a confined space to carry out work unless the person has issued a confined space entry permit for the work.

The permit must be completed in writing by a competent person and:

- specify the confined space to which the permit relates
- record the names of persons permitted to enter the confined space and the period of time that the work will be carried out
- set out risk control measures based on the risk assessment, and
- contain space for an acknowledgement that work in the confined space has been completed and all persons have left the space.

**Regulation 77:** The permit must be kept until the work is completed, or if a notifiable incident occurs, for at least 2 years after the confined space work to which the permit relates is completed.

### 1.1 Communication and Safety Monitoring

**Regulation 69:** The person conducting a business or undertaking must ensure that a system of work is provided that includes:

- continuous communication with the worker from outside the confined space
- monitoring conditions within the confined space by a standby person who is in the vicinity of the confined space, and if practicable, observing the work being carried out.

# SAFE WORK

## Confined Spaces



Figure 7: Standby person monitoring the confined space with rescue equipment and sign in place

### Entry and exit procedures

- Signs and barricades
- Information, instruction and training
- Maintenance of control measures

### EMERGENCY PROCEDURES

**Regulation 74:** A person conducting a business or undertaking must establish first aid and rescue procedures to be followed in an emergency and ensure those procedures are practised as necessary to ensure that they are efficient and effective.

First aid and rescue procedures must be initiated from outside the confined space as soon as practicable in an emergency.

The person conducting a business or undertaking must also ensure that openings for entry and exit are of a sufficient size to allow emergency access; openings are not obstructed; and any plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.

### HOW TO REVIEW CONTROL MEASURES

**Regulation 38:** A person conducting a business or undertaking must review and as necessary revise risk control measures:

- when the control measure does not minimise the risk so far as is reasonably practicable
- before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control
- if a new hazard or risk is identified
- if the results of consultation indicate that a review is necessary
- if a health and safety representative requests a review.

If you require any further assistance please contact the PIA.



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# SAFE WORK

## Confined Spaces Cont...

### Part 1.1 (5) Definitions

#### Part 4.3 Confined Spaces

##### Division 1 Preliminary

Division 2 Duties of designer, manufacturer, importer, supplier, installer and constructor of plant or structure

64 Duty to eliminate or minimise risk

Division 3 Duties of person conducting business or undertaking

65 Entry into confined space must comply with this Division

66 Managing risks to health and safety

67 Confined space entry permit

68 Signage

69 Communication and safety monitoring

70–73 Specific control—connected plant and services; atmosphere; flammable gases and vapours; fire and explosion

74 Emergency procedures

75 Personal protective equipment in emergencies

76 Information, training and instruction for workers

77 Confined space entry permit and risk assessment must be kept

### What's New?

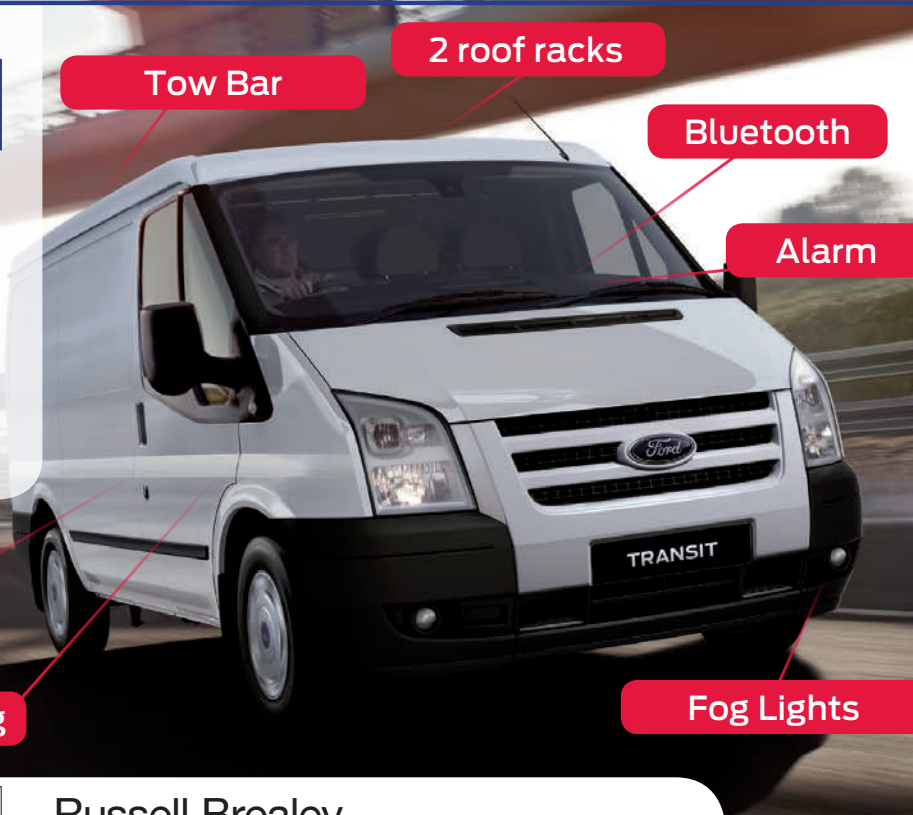
- Definition criteria changes for Confined Spaces
- Entry permit and signage [63] do not apply to emergency service organisation/workers for purpose of emergency rescue and first aid
- Signage [68] requirements
- Emergency procedures [74]

### What's Changed?

- Definition criteria for confined space changed and specific examples of confined spaces not included.
- Communications and safety monitoring is now a requirement and not by risk assessment [69].
  - including the provision of a standby person
- Defined requirements for specific control of:
  - (i) Connected plant and services [70]
  - (ii) Atmosphere [71]
    - (iii) Flammable gas and vapours [72]
    - (iv) Fire and explosion [73]
- Record keeping [76, 77]
  - Training record & notifiable incident is now 2 years
  - Entry permit and risk assessment records with defined retention criteria

  
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# SAFE WORK

## Confined Spaces Cont...

| Current  | New / Changed  |
|--|--|
| <p>Definition criteria includes:</p> <ul style="list-style-type: none"> <li>▪ 'may have restricted means of entry and exit'</li> <li>▪ Specific examples included</li> </ul>                       | <p>Removed in the criteria definition;<br/>Mine shaft or the workings of a mine excluded</p>   |
| <p>Requirement for entry permit and signage for emergency services is silent, but generally accepted practice as 'do not apply'</p>  | <p>Entry permit and signage [63] do not apply to emergency service organisation/workers for purpose of emergency rescue and first aid</p>  |
| <p>Appropriate signage erected before confined space entry [OHSW Regulation 44 (5)]</p>  | <p>[68] Signage defines specific requirements including prominently located next to each entry to the space</p>  |
| <p>OHSW Regulation 47 specifies provision of appropriate arrangements for effective rescue in the event of emergency</p>   | <p>[74] requires PCBU to establish first aid and rescue procedures in the event of emergency and are practised to ensure procedures are efficient and effective. Plant, equipment and PPE are maintained</p>   |
| <p>Communications and safety monitoring, including the provision of standby person(s) is by risk assessment</p>  | <p>Communications and safety monitoring, including the provision of standby person(s) is now a specified requirement under [69]</p>  |
| <p>Risk control applicable to the confined space hazards are called up in the regulations and not defined as specific risk controls</p>  | <p>Defined requirements for 4 specific control of connected plant and services; atmosphere; flammable gas and vapours; and fire and explosion (where applicable to a particular confined space)</p>  |
| <p>Record keeping:</p> <ul style="list-style-type: none"> <li>• 1 year for entry permit</li> <li>• 5 years for hazard ID &amp; risk assessments</li> <li>• 5 years for training records</li> </ul> | <p>Record keeping:</p> <ul style="list-style-type: none"> <li>• Entry permits: kept until work is completed</li> <li>• Risk Assessments: At least 28 days and until work is completed</li> <li>• Notifiable incident: entry permit and risk assessment records retained for at least 2 years after incident</li> <li>• 2 years for training records</li> </ul> |
| <p>Communications and safety monitoring , including the provision of standby person(s) is by risk assessment</p>   | <p>Communications and safety monitoring , including the provision of standby person(s) is now a specified requirement under [69]</p>   |
| <p>Risk control applicable to the confined space hazards are called up in the regulations and not defined as specific risk controls</p>  | <p>Defined requirements for 4 specific control of connected plant and services; atmosphere; flammable gas and vapours; and fire and explosion (where applicable to a particular confined space)</p>  |
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# SAFE WORK

## Kneel but do not Bow

The national safework objective of reducing musculoskeletal injuries will not necessarily be an easy one. The PIA has identified through its research in the development of BusinessMate and in gathering anecdotal evidence about musculoskeletal injuries that most plumbers musculoskeletal injuries are an accumulation of minor injuries and the resultant wear and tear on the body. The number of members who have had back surgery, hip and knee replacements, we believe is much higher than other sectors of the community. PIA is currently attempting to obtain funding to research this issue more closely.

### What can we do?

We're launching a campaign to promote the use of knee pads by every plumber to begin the long term process of reducing musculoskeletal disorders to knees. Whilst it may be too late for plumbers in their 40's or 50's, it's not too late to reduce the risk of further damage and to set an example to young plumbers. In the 1960's it was made mandatory to wear a seat belt and motorcycle crash helmet. Whilst there was some initial resistance, within a few years it became an automatically accepted action for the vast majority. The purpose of knee pads is to protect the thin layer of cartilage and tissue called the meniscus and the patella, or kneecap, while kneeling. Knee pads also guard the knee against abrasions that might occur during contact sports. Failure to wear knee pads increases your chance of injury eleven times. Even our combat soldiers wear them as standard equipment now. Knee pads help slow down the "wearing down" process in those who do more than everyday activities involving the knee. The kneecap itself is only 5cm across and 30mm thick. Even during normal activity, over a lifetime, the knees wear down. With

kneeling, we exacerbate the wear and tear on our kneecaps. Wearing knee pads when engaged in activities that overwork the kneecap can reduce the occurrence of injuries such as bursitis, which is the inflammation of small fluid sacs that cushion and lubricate the knee; tendinitis or tendinosis, caused by inflammation of or small tears to tendons; plica syndrome, when knee ligaments become thickened or unnaturally folded; patellofemoral pain syndrome, indicated by pain in the front of the knee related to the kneecap; or tears of the meniscus, the rubbery cushions that protect the knee joints. These injuries are serious. Some, such as a torn meniscus, may require surgery.

Knee pads have come a long way in recent years and there are pants now with knee pockets that you can insert your knee pads into, which removes the need to pull them on and off. There is no need for straps or elasticated pull over styles. The younger that you start wearing knee pads for all of this type of work, the greater the chance of having sound knees later in life. Hip Pocket Workwear and Safety at Hilton are able to offer you a range of knee pads & work trousers with knee pad pockets which can help minimise the 'wearing down' process. Exclusively for PIA members & the plumbing industry during the months of September & October, Hip Pocket Workwear & Safety Hilton is offering a discounted price on FXD & Jonsson work trousers with Knee pad pockets and are also giving away a pair of KP Knee Pad Inserts with each pair of these trousers purchased. Also on offer are the extremely popular Blue Mongrel Professional Kneepads at \$10.00 off normal retail price. Please see the advert in this issue. Contact or call into Hip Pocket Workwear & Safety, Hilton to redeem this offer and to discuss any other PPE, safety & uniform requirements you have.

### Knee Protection Products Available from Hip Pocket Workwear & Safety

Plumbing Industry Association Members Special Offer

Valid for September & October 2013



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# SAFE WORK

## Site Safety Fencing



A member recently raised the issue of site safety fencing after he had to leave some trenching open overnight.

The backhoe operator informed him that he believed the orange barrier mesh the plumber had erected around the site was inadequate and that he needed to erect a cyclone mesh fence around the trench.

If only it was that simple. The Safework legislation does not specify fencing or the specific action you need to take.

It requires you to carry out a site safety risk assessment and to exercise a duty of care on your part towards anyone who could access the site.

### The risk assessment needs to consider a range of issues eg:

- Is the site by a footpath or road?
- How busy is the area?
- Are you near a school where children may be attracted to the site on the way home?



In other words each site has unique factors which make the risk higher or lower. Obviously digging a trench in the Simpson Desert has negligible risks for third parties wandering by and falling in the trench.

Hence the legislation does not prescribe the specific requirements.

### In this case there are three options:

1. Backfill the trench before you leave the site to prevent anyone, who may access the site from falling into the trench and injuring themselves.
2. Cover the trenches with steel plate, plywood or some other suitable material. Or just fence around the trenches.
3. Fence the site completely to prevent any access to the site.

It is in some ways reasonable to assume that erecting barrier mesh around a whole site should be sufficient warning that you should not enter a site but that makes certain assumptions.

Children and intellectually disabled people have a certain naivety and lack of knowledge of potential dangers and do not or are unable to think through the risks.

Courts will take a protective view of such instances. Indeed in NSW a builder was fined \$50,000 when one of two boys who entered his building site then fell from the two storey roof, breaking his leg.

The boys were able to enter the site through a gap in the fence, which he was aware of and did not repair.

The issue will become much easier in 2014 when it will be mandatory for the principal contractor or builder to fence any site where the project is valued at more than \$250,000.





# SAFE WORK

## Managing Falls from a Height (Understanding the Legislation)

Below: A member photographed this professional gardener using his ultra safe ladder, note the branch replacing one of the rusted rungs



### Falls from a Height

The WHS Act 2012, Section 19 requires A PCBU to provide:

- A safe workplace,
- Safe systems of work,
- Plant and substances in a safe condition, and
- Adequate supervision, instruction and training.

Requirements for the management of falls from a height can be read into each requirement above

Regulation 78 (1) states that: A PCBU must manage risks of a fall from one level to another that is likely to cause injury.

- There is no height limit specified, (therefore it covers any height)
- The circumstances of a fall are outlined,
- Work should be carried out on the ground or on a solid construction, with edge protection, protected openings and with a safe means of access and egress

If Regulations 78 (1) is not reasonably practicable then Regulation 79 applies: A PCBU must minimise the risk of a fall by providing a safe system of work\*\* including:

- Firstly – a fall prevention device\*\*, or (if not practicable)
- Secondly – a work positioning system, or (if not practicable)
- Thirdly – a fall arrest system, which (under Reg 80) must include rescue procedures.

\*\* see examples

### Examples:

1. A safe system of work could include providing—

- Temporary work platforms;
- Training in relation to the risks involved in the work;
- Safe work procedures, safe sequencing of work, safe use of ladders, permit systems and appropriate signs
- Or a combination of the above

2. A fall prevention device includes—

- A secure fence; and
- Edge protection; and
- Working platforms; and covers.

NOTE: Reg 5 has definitions of fall arrest system & work positioning system

Relevant Codes of Practice provide guidance on the requirements and circumstances for complying with the regulations and minimising the risks of falls:

- *National Code of Practice for MANAGING THE RISK OF*

### FALLS AT WORKPLACES;

- *National Code of Practice for PREVENTING FALLS IN HOUSING CONSTRUCTION*
- *National Code of Practice for CONSTRUCTION WORK*
- *The CoP for PREVENTING FALLS IN HOUSING CONSTRUCTION (chapter 2) provides the hierarchy of control for fall prevention measures*

- Level 1 controls: Carry out the work on the ground or on a solid construction,
- Level 2 controls: Carry out the work using a fall prevention device, such as temporary work platforms include scaffolds, elevating work platforms, mast climbers etc,
- Level 3 controls: Carry out the work using a work positioning system such as a travel restraint systems or rope access systems,
- Level 4 controls: Carry out the work using a fall arrest system, such as a harness and lanyard system or catch platforms,
- Level 5 controls: If any residual risk remains after the level 1-4 controls are implemented consider administrative controls.
- Where the height of falls is >2 metres, levels 1 – 4 are necessary – see examples

Safe systems of work means using level 2 controls:

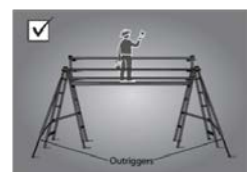
- Temporary work platforms include scaffolds, elevating work platforms, mast climbers, workboxes, building maintenance units, portable or mobile fabricated platforms or any other platform that provides a working area and is designed to prevent a fall.
- The codes of practice indicate that where the risk of fall is 2 or more metres, positive prevention measures such as guardrail systems (to AS 4994) are mandatory (i.e. handrails, midrails and toe rails).



Scaffold, fully decked with hand, knee and toe rails



Mobile scaffold with safe access



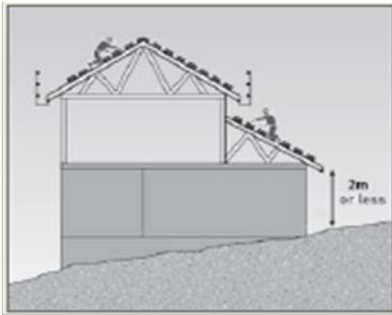
Trestle platform with handrails for >2m fall height

# SAFE WORK

## Managing Falls from a Height (Understanding the Legislation)



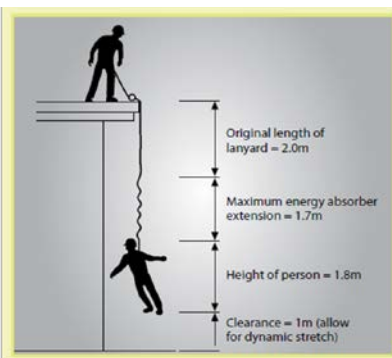
Platform ladder used as work platform



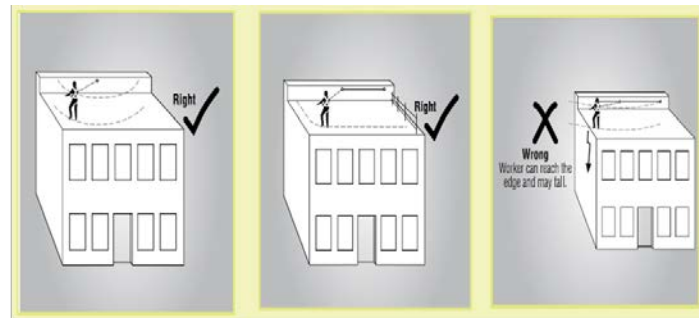
Guardrailing on house construction where the risk of falls is >2m



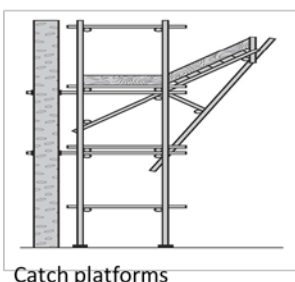
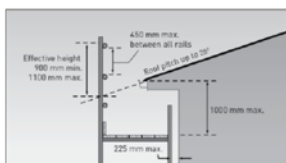
Industrial rope access systems. Requires significant competency and training to use



Fall arrest harness systems. Require significant competency to setup and use. Must also have rescue procedures



Work positioning harness system. Requires training for correct setup and use. It is not a fall arrest system

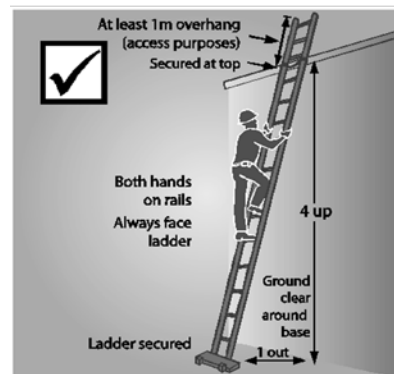


Catch platforms

Where defined construction work is being carried out, an additional control measure (a level 5 control) is specified:

- Reg 291 – Definitions of high risk construction work. High risk construction work exists *where there is a risk of falling more than 3 metres*.
- Reg 299 – where high risk construction work is to be carried out, *a written Safe Work Method Statement is required*
- *These particular regulations are transitioned to apply from 1st January 2014.*

This article covers the core issues surrounding Working at Heights. The Code of Practice for Managing the Risk of Falls at Workplaces can be found in the WHS area of the members area of the PIA website. The transition period ends in just three months time so you need to transition your business in order to comply as soon as possible. A reminder that BusinessMate provides you with Safe Work Method Statements (SWMS), formerly known as JSA's, and Standard Work Procedures (SWP's).



Ladder use is NOT banned, however:

The use of ladders leads to a high number of fall injuries (and fatal injuries) in SA.

- Ladders are, primarily, a means of access and egress
- Select the right ladder for the job
- Always use commercial grade ladders
- Inspect ladders regularly and keep them in good condition
- Setup and secure ladders correctly
- Do not hand carry tools or materials up a ladder
- Always maintain 3 points of contact
- Do not carry out hot work from a ladder
- Do not reach out from platform ladders

Training requirements:

- Workers must receive adequate information, supervision and duty of care training for working at a height;
- Workers using harness based work positioning systems must be trained in harness selection, inspection, use and storage;
- Workers using harness based fall arrest systems must be trained in harness selection, inspection, use and storage, and in all rescue procedures.

Workers erecting any tube and coupling scaffold or a modular scaffold > 4 metres high must hold at least a basic scaffolders licence.



# SAFE WORK

## High-tech Gloves Lend A Hand



The following article is reproduced from the Master Plumber's Association of Victoria and highlights a strategy that has significantly reduced hand injuries and is being increasingly demanded by Tier 1 commercial construction companies.

### IMPROVING APPRENTICE SAFETY - GLOVE TRIAL SLASHES INJURIES

Melbourne, July 30, 2013 - Occupational health, safety and environment coordinator, Kiri Spiridopoulos, looks after the safety of

140 plumbers at CDC Plumbing and Drainage, which is currently working on a multi-unit residential development, Upper West Side Apartments, in Melbourne's CBD.

Kiri's team includes several apprentices employed by the Victorian Master Plumbers and Mechanical Services Association (MPMSAA) through its Group Training Scheme. As part of a recent PPE trial, Master Plumbers' OHS officer, Rod Tresidder, made it mandatory for all the scheme's apprentices to wear safety gloves on the job.

"Having monitored our plumbing injury statistics over a period of six years, we know that 33% of all the injuries experienced by our members are hand injuries," explained Rod.

"Of these, 78 percent are cuts and, of those, a massive 50 percent are also lost time injuries", he added.

After making this striking discovery, Master Plumbers invited their PPE supplier to help them implement a hand-protection program targeting apprentices.

"As a result of this initiative we reduced apprentice hand injuries by 80 percent", said Rod.

Daniel Dew is a fourth-year apprentice with Master Plumbers who is currently being hosted by CDC Plumbing for the Upper West Side Apartments project.

"Our work involves hazardous tasks like removing metal studs, jack hammering, and handling adhesives and other harmful compounds such as glue solvents and silicon", he explained.

## Hand Protection Products Available from Hip Pocket Workwear & Safety

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**12 pair pack of gloves  
for the price of 10**

**\$39.50 per  
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Normally \$47.40  
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#### GuardTek SuperSkins 34-324

Represents an evolution in hand protection design and manufacture. New comfort blend seamless knit medium weight liner coated in microfoam nitrile

- High water vapour Transmission keeps hands cool & dry
- Abrasion and tear resistance to a higher level while providing the ultimate in fit and feel
- Sizes Small to XXL

**\$82.50 per  
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#### GuardTek Cut - 3

Breathable Black NBR foam coating on cut resistant Hi Vis Yellow HPPE fibre seamless knit liner. Providing good dexterity with very comfortable fit and feel for Cut Level 3.

- Cut protection with superior flexibility and breathability
- Liner treated for antimicrobial protection
- Sizes Small to XXL

**\$67.80 per  
pack of 12**  
Normally \$81.36  
\* Plus GST



#### GuardTek Cut- 5

Breathable Black NBR Foam coating on Maximum Cut Resistance Hi Vis Yellow HPPE/ Glass fibre liner. Extreme Protection, comfort and performance.

- Cut level 5 from hand formed close fitting liner minimising any hand fatigue for all day wear.
- Liner treated for antimicrobial protection
- Sizes Small to XXL

**\$149.50 per  
pack of 12**  
Normally \$179.40  
\* Plus GST



#### G - Tek Kforce K1300

100% Kevlar shell with blue latex coating on palm, crinkle grip, full thumb & fingertips, 7 gauge, medium weight

- Kevlar yarn is designed to be cut resistant
- Kevlar will not melt, ignite or conduct electricity
- Blue crinkle finish latex coating for excellent wet and dry grip
- Sizes Small to XXL

Contact Hip Pocket Workwear & Safety for all your safety requirements. All enquiries welcome

**GuardTek**

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# SAFE WORK

## High-tech Gloves Lend A Hand Cont...



"The gloves I received during induction provide good protection across a range of tasks so I don't need to keep putting them on and taking them off", he said.

"They're also strong enough to prevent cuts when I handle sharp steel edges".

The gloves are among the first to combine a high level of cut protection and flame resistance in one design.

The yarn consists of a core glass fibre that provides flame resistance and cut resistance at the highest levels (Level 4 for flame resistance and Level 5 for cut resistance).

"They are also incredibly comfortable. They provide a snug fit while at the same time allowing my hands to breathe so they don't get too hot," added Daniel.

The gloves ergonomic fit is due to a combination of patented technology and a soft foam coating that offers exceptional grip, decreasing slippage and hand tension when it comes to wet and oily jobs or handling small materials, like nuts and bolts.

According to Daniel, the gloves can last for several months, depending on the duties being undertaken. "They are a lot stronger than many other gloves I have tried and their durability is impressive", he said.

"Ever since Master Plumbers made it mandatory for apprentices to wear gloves, we have observed a substantial reduction in hand lacerations," enthused CDC Plumbing's Kiri Spiridopoulos.

"Our company has a compulsory glove-wear policy and I apply that vigorously", he said. "These gloves have made my job easier because apprentices actually like wearing them," he added.

"By making sure staff wear the right gloves, we have not only improved productivity and efficiency but, more importantly, reduced injury rates among apprentices", said Rod.

"I am not only delighted to have dramatically reduced hand injuries, I am also proud that Master Plumbers has saved members around \$118,000 in injury management expenses over six years just by ensuring apprentices wear their gloves," he concluded.

### New generation of 'safety-savvy' plumbers

On the issue of safety compliance among younger workers specifically, Rod explains, "Apprentices these days are smart. They don't want to damage their hands; they want to look well-groomed outside work and they are more accustomed to wearing gloves because it's always been that way".

"Meanwhile, some older plumbers still feel a stigma associated with protecting one's hands. Others tried working with safety gloves in the past, unsuccessfully, and are reluctant to wear them now, despite dramatic improvements in design and technology. Those workers are more likely to take unnecessary risks or make it hard for others to comply".

The interaction between older and younger plumbers is generally positive, though.

"Leading PPE firms are constantly developing new technologies to improve on the already high level of comfort, dexterity, tactility and grip provided by the new generation of safety gloves", said Rod.

And with safe work practices de rigueur for most young plumbers, compliance will likely spread throughout the industry as apprentices mature into senior roles.



Above: Left to Right: Kiri Spiridopoulos, Daniel Dew and Rod Tresidder



# Workers compensation specialists servicing the Plumbing industry

Employers Mutual is a recognised industry leader in workers compensation case management services. We are proud of our partnership with the Plumbing Industry Association South Australia Inc. and offer its members specialist, tailored solutions to improve return to work outcomes and help reduce the cost of workers compensation.

## **Member Benefits Program**

We have supported employers in the Plumbing industry by allocating over \$600,000 in funds through our Member Benefits Program since 2010, to support the establishment of BusinessMate as a complete management system for plumbing businesses.

We are currently negotiating the provision of consulting services to the association and our members to support the Work Health and Safety components of BusinessMate.

## **Working with you**

In November all employers will be given the opportunity to elect their workers compensation claims agent for 2013/2014. We urge all employers in the plumbing industry to nominate Employers Mutual as their claims agent of choice when given the opportunity to do so. By selecting Employers Mutual as your claims agent, you will be assured of specialised industry claims management service and be eligible to receive ongoing member benefits.



## **Our key services include:**

- Claims and injury management
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# SAFE WORK

## High-tech Gloves Lend A Hand Cont...

Putting aside, “Real men don’t wear gloves,” it’s worth considering a trial to see if you can work with gloves all of the time and reduce the risk of lost time and injury.

Some PIA members have chosen to predominantly use fingerless gloves to enable fine manipulation and this encourages plumbers to wear their gloves.

Hip Pocket Workwear and Safety at Hilton have an extensive range of gloves with many suitable for various plumbing & civil works applications.

Exclusively for PIA members & the plumbing industry during the months of September & October, Hip Pocket Workwear & Safety Hilton is offering discounted pack pricing on the premium GuardTek range of gloves. Promotion styles on offer are as follows:

### 1. GuardTek SuperSkin P/N: 34-324

Introducing the all new GuardTek SuperSkin glove researched and designed in Australia for all industrial trades where close fitting dexterity and hard wearing protection is required.

This gloves design has taken advantage of the very latest technologies and manufacturing materials to produce an ultra thin protective glove that lasts longer than a conventional leather rigger glove, fits closer like a second skin for absolute finger tip control and breathes (humidity transfer) through the nitrile coating for all day long comfort.

Extensive field testing has proven the special blend of Nitrile rubber coating added to the sportswear inspired seamless knitted liner is particularly suited to Metal roofing and gutter work.

Due to the extra flexibility offered by these new materials, sharp edges of sheet metal tend to stretch the fabric rather than slicing or tearing.

The overall abrasion protection offered by these gloves is exceptional and the anti bacterial treatment inside the glove means they are kept hygienically clean and fresh for extended periods of work.

### 2. GuardTek Cut-3 P/N: CUT-3

Utilising the same technological coating advancements as SuperSkin gloves, the manufacturer has developed the softest, most comfortable fitting Cut 3 rated work glove to date.

The liner has slightly thicker woven materials (than the SuperSkin) to produce the necessary medium level cut protection, however the same GuardTek design principles of minimal finger movement resistance and absolute wearer comfort are still very apparent in this glove.

A high quality knitted wrist cuff keeps the dirt and muck out while the Hi-Vis Lime colour of the liner keep the mind aware of where the hands are in any general work or cutting process.

The GuardTek Cut-3 gloves are fully breathable through the coating / liner and are perfectly suited to plumbing work where a higher level of cut and snag protection is required.

A Cut-5 version of this glove (GuardTek Cut-5) is also available for where a higher degree of cut protection may be required.

### 3. G-Tek. K-force P/N: K1300

For those jobs where the highest level of protection is a must, the K-force glove. Built from a maximum cut and heat protectant liner of Kevlar, then coated with premium quality latex rubber in extra grip crinkle finish, this glove rates with the highest protection available in cut, tear and puncture resistance (EN388 testing standards).

The solid rubber coating on the palm and fingers creates a water barrier, the Kevlar liner creates the maximum cut 5 protection.

The combination of both materials provides good heat resistance for short exposure periods.

The K-force is designed as the world’s most robust glove, it’s built more heavy duty for those tasks that demand maximum protection.

Contact or call into Hip Pocket Workwear & Safety, Hilton to redeem this offer & to discuss any other PPE, Safety & Uniform requirements you have.



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