

WINTER/SPRING 2005 ISSUE 1

energysafe



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**Warning to contractors
and electricians:
DON'T WORK "LIVE"**

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Voluntary Home Inspection

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A Life That Changed In A Flash

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Gas Safety News

FROM THE EDITOR

IT'S THE FIRST ISSUE OF **energysafe**

As reported elsewhere, the new safety regulator Energy Safe Victoria is now official, having been ceremoniously launched on 10 August. To celebrate the occasion we are pleased to present the first issue of **energysafe**.

Our aim is quite clear: to build on what was successful in **LIVE with electricity** and create a publication covering the entire energy safety scene in Victoria.

The intention is to ensure there will be no diminution in the amount of electricity safety information which we provided in our predecessor magazine, but to add to this with the gradual build-up of interesting and essential information covering gas safety and other energy safety issues.

Hopefully we have made an encouraging start. We believe we have provided an interesting mix of stories covering electricity. But gas has not been ignored. We have advice and information for gas fitters on a whole range of issues.

The LP gas heaters used for pavement cafes in the winter are a cause of concern following a number of serious safety incidents and near-misses. A new safety campaign to address the problem was launched recently and we have the details.

On the electricity front we have some alarming incidents to report. Fortunately the people involved survived the ordeals – but it could very easily not have been so. For instance:

- A contractor working on a farm near Shepparton received serious burns and was thrown some eight metres when the tray of a tip truck hit overhead powerlines. An information campaign warning of the dangers of overhead powerlines is underway across regional Victoria.
- A professional sportsman was also seriously injured touching the live wires in a damaged washing machine. There are lessons to be learned from this incident.
- And another man was lucky to survive when he drilled through an 11 000 kV power cable when installing a sign to direct ambulances into a hospital! The OCEI issued a safety alert following this incident.

Contractors and electricians working “live” is also a very worrying practice. ESV/OCEI and NECA’s Victorian Chapter have come up with some initiatives to discourage people who should know better because they understand the dangers of doing so.

A major new initiative for the general community is the introduction later this year of the Voluntary Home Safety Inspection scheme. This was covered in detail in the last issue of **LIVE..** and we have a progress report on the introduction of this important scheme.

The list of latest prosecutions brought against people by the OCEI – and in the future by ESV – always makes interesting reading for some. Regular readers of this column cannot fail to notice how the OCEI is continuing to successfully chase down people who carry out electrical work when unlicensed or offer to do work when unregistered.

The Victorian Arts Centre Spire featured on the front page of the last issue of **LIVE..** We have a full feature about this icon in the centre pages of **energysafe**. It is such an icon that people ring up to report when one globe out of the 13 000 is not working!

Another icon is back in service – the Nylex sign. Those travelling passed can once more know the time and the temperature. We have a report on this recent news item.

As usual we hope there is something for everyone in this first issue. Please let us know what you think. We need to know whether the magazine is meeting your needs or not. Until the next time.

David Guthrie-Jones
dguthriejones@esv.vic.gov.au

Please note: Most articles in this edition still refer to the Office of the Chief Electrical Inspector (OCEI) and Office of Gas Safety (OGS). This has been the correct approach for us as the new merged safety regulator, Energy Safe Victoria, was not formally established until August – just as this issue was going to press. Apologies if these references to the previous safety regulators, or in some cases joint references such as OCEI/ESV, cause any confusion. For the next edition, all energy safety issues and initiatives will be attributable to ESV.



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ADVERTISE IN **energysafe** NEW MAGAZINE, SAME DEAL

This new magazine covering energy safety issues in Victoria and further afield, **energysafe**, represents the best advertising deal around.

Although there is a vastly increased circulation list compared to our predecessor **LIVE with electricity**, our highly competitive and attractive advertising rates have not changed.

There is likely to be high demand for space in the new magazine so it might be a good idea to get in quick. An increasing number of companies and organisations have been advertising their products and services in **LIVE..** and the new magazine will also appeal to them.

Undoubtedly **LIVE..** has been the best channel for reaching a whole range of individuals and companies involved in electricity safety, and **energysafe** will be the same proposition for everyone with an interest in energy safety as a whole.

With the magazine also being sent to everyone with an interest in gas and pipeline safety – as well as electrical safety – our circulation list now exceeds 50 000.

Our attractive advertising rates are as follows:

Full page	\$5000
Half page	\$2500
Qtr page	\$1250

Rates can be negotiated for other sizes.

For advertising information and bookings contact Melinda Djirkallis at ESV on (03) 9203 9700 or by email at mdjirkallis@esv.vic.gov.au Don’t delay – bookings are now being taken for the next and subsequent issues of **energysafe**.

FRONT COVER: New initiatives to discourage registered electrical contractors and licensed electricians from working “live” include a new brochure, poster and labels for fixing to switchboards and other installations. The stark graphic prepared by our illustrator Paul Harvey for the front of the brochure and the poster is so good we feel it deserves a place on the front cover of our new magazine **energysafe**. A copy of the brochure and a page of labels have been provided with this issue.

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NEW SAFETY REGULATOR IS OFFICIALLY ESTABLISHED

“Through establishing ESV, the Government and the Minister has set us a major challenge to maintain and even improve safety outcomes. We look forward to working with our safety partners in achieving them.”

It's official – Energy Safe Victoria (ESV) has replaced the OCEI and Office of Gas Safety (OGS) to become Victoria's new energy safety watchdog.

The Energy Safe Act 2005 setting up the new regulator was proclaimed on 10 August 2005 – the same day as the official launch of the organisation by the Minister for Energy Industries and Resources, Theo Theophanous MP, at the Fire Services Museum in East Melbourne.

Almost 100 people from State Government and the energy industry attended the successful launch function.

During his speech, the Minister announced that Ken Gardner, previously the Chief Electrical Inspector, had been appointed Director of Energy Safety to head the new body.

The Minister said safety was the most important thing in the energy sector and the establishment of ESV was the start of a new era in energy safety.

“Energy is an essential service but we cannot be complacent about it. Safety is very important particularly with electricity and gas consumption in Victoria predicted to increase by 2% and 3% respectively each year for the next 20 years.”

He said there had been one fatality due to electrical causes since July 2004. While this was a significant improvement compared to a few years ago when there were as many as seven electricity and gas related fatalities, it was still one fatality too many.

He said ESV would become a familiar name across the community and throughout the energy industry, and will be well placed to drive and promote energy safety in the home and the workplace.

Ken Gardner reiterated that while Victoria has a good safety record across electricity, gas and pipelines, there is no time for complacency.

“Quite simply, the merger of the functions and activities into one organisation will strengthen what we do. We can share our experiences across gas and electricity and therefore come up with a better long term result in the interests of all concerned,” he said.

“We must continue to ensure that we are maintaining the level of education, information and regulation needed to minimise energy related incidents. The merger gives us the benefit of benchmarking against different industry sectors and selecting the best approach.

“Until recently there was little synergy between gas and electricity in Victoria, but all that is changing. And it is appropriate that there be one energy safety regulator.”

He concluded: “Through establishing ESV, the Government and the Minister has set us a major challenge to maintain and even improve safety outcomes. We look forward to working with our safety partners in achieving them.”



At the launch of Energy Safe Victoria (L to R): Dave Nicholson, Director of Community Safety with the MFB; Richard Bolt, Executive Director Energy and Security, Department of Infrastructure; Theo Theophanous MP, Minister for Energy Industries and Resources; Ken Gardner, Director of Energy Safety.

Another speaker at the launch was Dave Nicholson, Director of Community Safety with the Metropolitan Fire Brigade. He spoke of the importance of the partnership between ESV and the fire authorities in helping to reduce the incidence of fires.



LOCATIONS OF ENERGY SAFE VICTORIA

For the foreseeable future the electricity and gas activities of Energy Safe Victoria will be remaining in the locations previously occupied by the OCEI and OGS - Level 3, Building 2, 4 Riverside Quay, Southbank, and Level 1, 369 Royal Parade, Parkville, respectively. For electricity issues continue to phone (03) 9203 9700, for gas issues ring 1800 069 588.

NEW AUDIT PROGRAM TO CHECK ON CERTIFICATE USE

A new audit program is being devised to check on the numbers of registered electrical contractors and licensed electricians who are using the certificate of electrical safety scheme – and the number of certificates which are actually being issued when jobs are completed.

Director of Energy Safety, Ken Gardner, said it was clear from ESV/OCEI records that while many contractors and electricians were utilising the scheme fully, there were some who were not using it at all and others who were not using it fully.

“From our records we can determine quite accurately the average number of jobs undertaken by different sectors of the industry, whether they be large electrical companies or sole traders, or sole traders with just one or a few people working for them.

“This will also tell us the average number of certificates which should be used by the different sectors. Obviously we will then need to scrutinise the activities of individuals and companies whose level of certificate use falls below the threshold or average for the sector,” said Ken.

There will be more information about the audit in the next issue of [energy safe](#).

NEW STATEWIDE CAMPAIGN WARNING TO FARMERS TO “LOOK UP AND LIVE”

Yet another major incident involving heavy machinery on a rural property making contact with an overhead powerline has resulted in a new campaign from the OCEI/ESV warning farmers and others to always “Look Up And Live”.

A contractor was almost electrocuted when the tray of his tip-truck touched an overhead powerline on a farm property at Tungamah, near Shepparton, in early June.

The operator received severe burns to his right hand and legs and was found eight metres from the truck following the incident.

There have been two deaths and a number of major incidents in recent years caused by machinery and equipment touching overhead powerlines on rural properties. Without these deaths, Victoria would have a clean bill of health as far as electrocutions are concerned.

While most of the incidents have occurred in the Shepparton area, the new campaign – involving television commercials and local newspaper advertising – will cover all of regional Victoria. The campaign commenced in August and will run over a number of weeks through September and October.

The commercials are being shown on regional television networks. The advertisements are appearing in most country newspapers during the same weeks that the commercials are being broadcast.

The advertisements read in part:

“The Director of Energy Safety, Mr Ken Gardner, said Victoria had a comprehensive set of No Go Zone rules and regulations to prevent such incidents occurring and protecting everyone involved in operating heavy machinery.



Top, bottom: Images from commercials being shown across regional Victoria over August, September and October.

Middle: Burn marks below the tyres of the tip-truck which struck overhead powerlines at Tungamah, near Shepparton, in early June this year.



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“It appears some people don’t understand the dangers involved in working near powerlines or for their own reasons have chosen to ignore them. If they are not concerned for their own safety, they should at least consider others including their families.”

The OCEI issued the following basic advice to machinery operators:

- Obtain a copy of the “No Go Zone” rules and regulations and study them closely;
- Identify all electrical hazards before starting work. If in any doubt contact the local electricity distribution company;
- Monitor weather conditions. Powerlines can sag in extreme heat and sway in strong winds. They can be difficult to see at dawn and dusk;
- Ensure an Energy Safe Victoria registered spotter is on hand when working anywhere near overhead powerlines.

For further information contact Energy Safe Victoria on (03) 9203 9700.



“NO-ONE SAW THE DANGER”

No-one realised the danger posed by overhead powerlines which caused the death of a 34 year-old man, a coroner in NSW determined recently.

The coroner, Mr Peter Byrne, found at an inquest in Orange that the man, Damien Pusterla, was accidentally electrocuted when part of a crane came into contact with 11 kV powerlines during work dismantling a shed.

In his findings, Mr Byrne said it was clear that the three people involved in transporting parts of the shed did not consider the potential danger of the high-voltage powerlines.

Evidence provided to the inquest revealed the initial route from the shed site to the storage site did not require material to be transported under the powerlines, but this route had been changed.

“I also accept the fact that once the decision was taken to transport the steel frame with the sliding door affixed, that the crane driver’s view ahead was very considerably diminished and he could not see the overhead powerlines as he was travelling forward,” said the coroner.

The coroner said it appeared there was no job risk assessment or job safety analysis carried out.

He said that despite this it still remained a duty of the site foreman and crane operator to conduct their own risk analysis on how the load was to be transported and the route travelled.

Mr Byrne said he had found no evidence indicating anyone should face criminal charges resulting from the death.

What do you think of **energysafe**? Please let us have your comments by phone at (03) 9203 9700, by fax at (03) 9686 2197, or by email at info@esv.vic.gov.au

RESEARCH STUDY INTO AGEING ELECTRICITY INFRASTRUCTURE

The OCEI has engaged the Monash University Centre of Electrical Engineering to undertake a research project into ageing electricity infrastructure.

The aim of the research is to determine the integrity of very old electricity infrastructure in domestic premises, as compared with the original design standards for that equipment at the time of the installation.

The study will also investigate the Multiple Earth Neutral (MEN) System of earthing these premises and the safety risks associated with other work disciplines that are affected by this system of earthing.

The arrangement with Monash University requires the OCEI/ESV to support the research study by providing both financial assistance and expertise.

In correspondence with the university confirming the arrangement, the Chief Electrical Inspector and now Director of Energy Safety, Ken Gardner, said the research into the integrity of the very old electricity infrastructure would determine the issues and risks associated with this wiring from a public and home-owners safety perspective.

On the issue of the MEN system of earthing the premises, the other work disciplines referred to include the plumbing and gas industry and other “like” service organisations.

“It has been identified that these risks may have increased significantly as a result of this earthing method due to the changes that have occurred in other equipment applications over time.

“The OCEI expects that a key research outcome must be to develop specialised equipment that can assist industry with the accurate determination of the state of the electricity infrastructure mentioned and for the safe work by employees in those disciplines,” said Ken.

The research would be part of a study scholarship leading to a Master Degree or Doctorate of Philosophy in Engineering.

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VOLUNTARY HOME SAFETY INSPECTIONS SCHEME TO BE LAUNCHED SOON

Registrations of interest sought from qualified people

The finishing touches are now being applied to the detail for the major new electricity safety initiative, the Voluntary Home Safety Inspection Scheme.

It is proposed to launch the scheme to industry shortly, with a marketing campaign – including possible television commercials and brochures – focussed on the general community to be initiated within the next few weeks.

An easy guide to the Voluntary Home Safety Inspection Scheme for both the industry and customers is being prepared for the OCEI/ESV website.

Introducing the scheme will be one of the first major new initiatives to be launched by the new energy safety regulator, Energy Safe Victoria (ESV).

Full details of the scheme were revealed in issue 7 of **LIVE with electricity**. Basically, home safety inspections will be carried by ESV approved and registered home safety inspectors at the request of householders and property owners.

LEIs, RECs, LEIWs and other suitably qualified, skilled and competent people can become ESV registered Approved Home Safety Inspectors. Individuals and companies are eligible to become inspectors by passing the appropriate competency assessments.

ESV welcomes registrations of interest from companies and individuals to become Approved Home Safety Inspectors.

Individuals need to satisfy the following criteria:

- Be at least a Licensed A Class Electrician or a G class Licensed Electrical Inspector;
- Undergone an approved Installation Testing Course in the past 12 months;
- Has the appropriate electrical testing equipment;

- Is covered by the relevant public liability and professional indemnity insurances;
- Is not currently under review by the OCEI/ESV.

For companies, the following criteria applies:

- Has \$5M public liability insurance;
- Has the relevant professional indemnity insurance;
- Employs at least one person eligible to become an Approved Home Safety Inspector.

Under the scheme, customers can contact ESV by phone, fax or through the website to obtain a list of registered approved home safety inspectors. After ascertaining the cost of the work, they can then authorise the inspection to proceed.

Basically, the scheme is an inspection on the condition of an existing domestic electrical installation to identify any electrical safety concerns or deficiencies against the Electricity Safety Act, Regulations for Electrical Installations and the Wiring Rules.

The inspection will:

- Reveal if any electrical circuits or equipment is overloaded;
- Find any potential electrical hazards in the electrical installation;
- Identify any defective electrical work;
- Highlight any lack of earthing or bonding.

The inspector is required to issue a Certificate of Home Safety Inspection recording the findings of the home safety inspection within two days of the inspection.

In the certificate, the overall condition of the electrical installation will be identified as either:

1. Safe
2. Safe, remedial work required
3. Unsafe.

The marketing campaign for households and property owners will focus on the possible danger to individuals and families from overloaded, ageing and deteriorating electrical installations.

It will explain that solutions – particularly if the property is at least 25 years old or more – include the installation of a safety switch, if there is not one already, and arranging a home safety inspection. It will also suggest that inspections are conducted regularly – perhaps every five years or when properties change hands.

The campaign will also stress that remedial work must be carried out by a registered electrical contractor and that a certificate of electrical safety must be issued once the work is completed.

Check the ESV website for full details of the scheme, how people can register to become an inspector and updates on when it will be launched. (www.esv.vic.gov.au)

WORKSHOPS FOR GASFITTERS AND PLUMBERS ON NEW STANDARD

New standard AS5601 – 2004 covers the requirements for consumer piping, fluing, ventilation and appliance installation for Natural Gas and LPG.

Are you aware of your obligations as a plumber or gasfitter under the new standard?

If not, help is at hand. The Master Plumber's and Mechanical Services Association of Australia (MPMSAA), Kleenheat Gas and Energy Safe Victoria have organised three workshops across regional Victoria to cover the new standard and how it affects you.

Workshops will be held at Ballarat (8 October), Traralgon (18 October) and Geelong (27 October). They will run from 6.30 pm to 8 pm and the cost is \$15.

More information and registration forms can be obtained by contacting Candice Biever at MPMSAA on (03) 9329 9622.

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A LIFE THAT CHANGED IN A FLASH

When lineworker Rowan Lee woke up in a Darwin hospital after a three-day coma, he was told that he nearly lost his arm. He was lucky – he nearly lost his life when a transformer exploded. He survived by jumping from the fire, from seven metres up, but that was just the beginning. Rowan and his workmates were 100 kilometres out of Darwin, with no running water.

Rowan was in Melbourne recently to speak to apprentices at his old training ground, ETTA Training, about electrical safety and accident prevention. He tells students his story and shows them photos documenting his agonising recovery. From the shocked looks on their faces he knows that his safety message is hitting home.

Rowan Lee tells his story to **energysafe**.

It was December 2003. I was sent out to a fault to replace a transformer on a power pole. Oil had been leaking. We got up there and it exploded, which covered us in oil.

Then we got engulfed in a fireball.

I dived out head-first, but I must have done a flip in the air, because I had torn ligaments – and I must have landed on my feet and fallen back because I had hit my head. I was about 20 metres away. I came to and there was skin hanging off my hands. I turned around and the other guy, Luke, was unconscious and two guys were dragging him away – with the transformer still exploding.

There were three guys on the ground. Panic set in. They thought I was still up in the bucket – I got out that quick that they didn't see me – so they grabbed Luke. I came up behind them – I must have got up running and taken off my shirt which was on fire.

We were 100kms out of Darwin. We were at a small mine site – nothing much out there. It was way out of town. We had to meet the ambulances half-way.

They got Luke off to meet the ambulance while I stumbled off looking for water, but there was no running water because the power was out.



I went into survival mode. The guy who was calling the ambulance had seen me and was freaking out. He couldn't even get on the radio and I was saying, "Just get on there and call them. Call the ambulance."

I was just burning. In the truck I could feel it was getting harder to breathe. The guy who was driving the truck was freaking out. I was trying to calm him down. I didn't tell him my breathing was getting harder. I don't think I really realised how badly burnt I was. One of my workmates has never gone back to linework.

He'd seen it all and took it pretty hard.

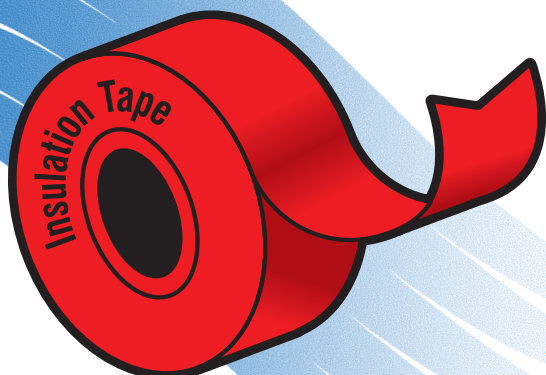
There were two ambulances coming for the two of us but there was confusion with my ambulance. They thought I'd been picked up

already and they turned around. Then I was put in a truck with a governor on it so it couldn't go over 100kms an hour. So I arrived 20 minutes later than Luke at the hospital. Luke was lucky he was in the first car – ten minutes later and he wouldn't have made it.

I got third-degree burns to 35% of my body. I was in an induced coma for three days then they flew me down to Perth. The hospital in Perth has one of the best burns units in the world. But it is a painful place. You'd wake up every morning and they'd take you in the shower and scrub you down. You'd be swearing your head off it hurt so much.

I spent five weeks in the burns unit then another couple of months down there having physio

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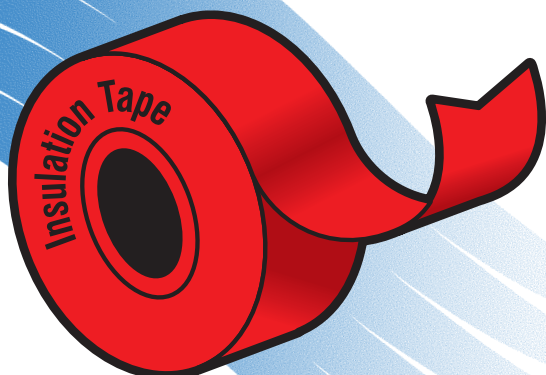
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every day. That was painful – really painful. The scarring is constantly tightening up and they've got to constantly stretch it so you get as much movement back as you can.

The effect is almost worse on the family. My mum and sister spent the whole time in Perth with me and my dad flew down for a month. He'd just moved towns, bought a house and got a new job but he had to quit it, sell up and move again. It had a big impact on the family.

My mum still stresses. A couple of weeks back she got a phone call and she thought 'What's Rowan done now? It's only seven o'clock in the morning!' She still worries.

It was seven months before I got back to work. I'm back at work fulltime but I'm in the office now. I have to avoid direct sunlight for a couple of years and I'm still wearing the pressure garments, though hopefully they'll come off this Christmas.

I miss linework. I miss the group of people I used to work with – and I loved working in the sun. I'm not sure if I'll get back to linework. I have to see how it goes. I'm still recovering. I've been pretty positive all the way through it.

I just want to make people aware of the dangers. It can happen to you. I tell apprentices about the contributing factors – there was a lot of built-up factors at the site. There was no responsibility put on anyone – no blame. There was just poor communication, and there was no risk assessment done at the site – just a quick talk but not a thorough one.



I'd been on call for four weeks in a row and that day was my first day off in four weeks and I was called in at lunchtime and it was rushed. There were a lot of things we didn't know out there.

I tell apprentices, just take time to look at the job and discuss with your workmates what you are going to do. Don't rush. If you prevent another accident, it will be worth it.

Lineworker Rowan Lee at ETTA's Chadstone training facility while visiting Melbourne.

The burned out truck following the incident, and some of Rowan's injuries.



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REVISION OF AS5601 GAS INSTALLATIONS

Energy Safe Victoria advises that AS5601, Gas Installations, has been revised and released as AS5601-2004, superseding AS5601-2002.

The Gas Installation Regulations call up AS5601 as the technical standard for consumer piping, flueing, ventilation and appliance installation.

The revised standard contains a number of changes and is an essential document for all plumbers and gasfitters, as well as those involved in gas installation design such as architects and property renovators.

The changes include:

- Composite pipe has been accepted.
- Clearances from flue terminals have been amended.
- Advisory supply pressures are indicated in the pipe sizing tables.

Note: Composite pipe comprises an inner layer of polyethylene, then a layer of aluminium, with an outer layer of polyethylene. Some installation restrictions apply, details are provided in the standard.

AS5601-2004 is now effective for any new gas installation and for any new work being done on an existing installation.

AS5601-2004 can be obtained by contacting Standards Australia on 1300 654 646 or by visiting www.standards.com.au.

ANNEX ON A CARAVAN OR MOBILE HOME

The term “annex” has been included under the definition of “Caravan” in AS5601-2004. An annex is classed as being part of the caravan or mobile home, whether permanently fixed or temporarily attached to or adjoining the main section of the structure.

This means that a flueless heater cannot be installed in an annex.

MANUAL MECHANICALLY LATCHING RELAYS

The use of relays which can be manually latched is strictly forbidden on control circuits that could affect the safety of a Type B gas appliance.

These relays are great for trouble-shooting during the commissioning of electrical control circuits but, when they are used in conjunction with safety interlocks, they are a recipe for disaster.

In one incident, the burner safety shut-off valves were inadvertently powered, allowing a dangerous accumulation of unburnt gas in the appliance.

Several latching relays have been involved in near-misses where burners were allowed to continue to run without the combustion air fan operating.

AS 3814-2002 Industrial and Commercial Gas Fired Appliances, Clause 3.4.1 states “no means shall be provided for an interlock or limit device to be rendered ineffective except as part of an approved automatic programmed checking cycle”.

Energy Safe Victoria’s concern with mechanically latching relays is that it is too easy to forget to return the relay to its normal mode of operation. In the near-misses, the situation could have been much worse if the burners were in start-up mode and gas was allowed to accumulate in the combustion chamber because of an ineffective pre-purge.

Where these relays are used inappropriately, there is a real risk of causing an explosion which could result in an injury or fatality, and serious damage to plant and equipment.

Examples of mechanically latched relays include the Finder Type 55.34 and the TEC relay model TLY 2, which is shown here in the latched position.



The power cord draped over the hot and cold water pipes.

ELECTROCUTION NEAR-MISS

Recently a plumber installed an external water heater at a commercial property. During the work, the power cord supplied with the heater was draped over the hot and cold water supply pipes.

At some time during the installation, probably when a fitting was being brazed, heat was transmitted along the copper pipe. This caused the power cord to melt onto the pipe, exposing the active wire.

The situation was found by an Office of Gas Safety Inspector before the power was applied.

This is the second such near-miss seen by the Office in recent months.

Plumbers should ensure that all electrical cables are kept clear of metallic piping, especially where the piping is hot or could subsequently transmit heat.

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TYPE B GAS-FIRED APPLIANCE MAINTENANCE

There may be some confusion in relation to work that can be carried out on Type B gas-fired appliances by electricians.

Type B gas appliances are non-domestic and are often unique or produced in relatively small numbers. They are generally found in large commercial or industrial sites.

Occasionally, an electrician may receive a callout to fix what seems to be a straightforward electrical fault on a gas appliance that has been deemed to be 'Type B'. Often, Type B gas-fired appliances have process constraints that are critical to its safe operation.

Only a licensed Type B person is allowed to work on those parts of the appliance that affect the safe use of gas. This generally means the burner controls and its associated interlocks, including, for example, temperature interlocks, pressure interlocks and safety PLC systems that interface with the burner controls.

A licensed Type B person is one that has demonstrated competence in the area of complex gas-fired appliances and is licensed by the Plumbing Industry Commission under the Building Act 1993, Part 12 A.

As part of the competency requirements, the person must have as a minimum a 'D' electrical licence (disconnect-reconnect) so that they are able to change like for like components,

and issue a certificate of electrical safety for the completed work. In instances where more extensive work is required, then a full electrical licence may also be required.

The safe operation and maintenance of Type B gas-fired appliances requires sound knowledge of combustion principles, operation of controls, proper burner start-up sequences, proper appliance purging, process safety requirements and the minimum standards to comply with AS 3814-2002 Industrial and Commercial Gas-fired appliances.

If an incident occurs following unauthorised work on a Type B appliance then the person involved may be subject to prosecution.

If you are called to service a Type B appliance and you are not a licensed Type B person, then be safe and be sure ... do not touch those areas that control the safe use of gas.

EXTERNAL PARALLEL THREADED FITTINGS ON GAS INSTALLATIONS

Using parallel to parallel threaded fittings is not permitted in gas installations.

The common practice of using an external parallel threaded lugged elbow and an internal parallel threaded fitting is not acceptable.

These fittings do not have a tightening effect and the joint is dependent on the use of copious amounts of thread tape to make it gas-tight.

Subsequent movement or vibration is likely to cause an escape.

In addition, the use of a long screw (running thread) is not acceptable.

If you require further information contact Energy Safe Victoria on 1800 069 588.

Handy safety hint. Whenever you change over the cylinder on an LP gas appliance such as BBQs, wok burners or outdoor heaters, always check for leaks at connections and the condition of hoses between appliances and LP gas cylinders. Check for leaks using the soapy water test – spray the connections with soapy water solution, if bubbles form there is a leak. Tighten all loose connections. Discard and replace all faulty or damaged connections and hoses.



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Lawyers: Hall & Wilcox
Investment advisor: Southern Alliance Financial Services

To find out more call:

Pat Power (Fund Secretary)
(03) 9347 6699
Chris Ferruccio (Field Officer)
(03) 9347 8899
ETU (03) 8341 5555
NECA (03) 9645 5533
Administration 1300 134 417

To lodge a claim call:

Income Protection on 1300 651 450
Severance on 1300 134 417

energy safe advertorial – an article supplied by Protect

INDEXATION OF BONA FIDE REDUNDANCY THRESHOLDS

The Australian Taxation Office (ATO) has advised (Taxation Determination TD 2005/21) of the indexation of tax free amounts for a Bona Fide Redundancy payment.

From 1st July 2005 the threshold limits for a Bona Fide Redundancy are:

- \$6,491,
and
- \$3,246.

If an Employee Member of Protect is eligible to lodge a Bona Fide Redundancy (BFR) claim, the ATO advice means the tax free amount the Employee Member will be entitled to is \$6,941 + \$3,246 for each completed year of service with the employer who has made the employee redundant.

In considering a BFR claim, Protect must receive a declaration from both the employer and employee that "the position of the employee has been made redundant and ... there is no agreement in place to re-employ the employee".

Protect must also receive a declaration from the employee advising:

- the date the employee commenced with the employer,
and
- the date the employer made the employee redundant.

This information is mandatory and an Employee Member cannot lodge a BFR claim with Protect unless it is provided.

The ATO will again index the tax free amounts for a Bona Fide Redundancy payment in 2006.

NEW INITIATIVE TO DISCOURAGE “LIVE” WORK

Hard-hitting brochures and “danger” labels to be fixed to all switchboards are two new initiatives being put in place as part of the OCEI/ESV and NECA campaign to discourage registered electrical contractors and licensed electricians from working “live”.

Copies of the brochure and a sheet of the labels have been included with this issue of **energysafe**.

ESV and NECA encourages all registered electrical contractors (RECs), licence holders and licensed electrical inspectors (LEIs) to attach the sticky label to any electrical switchboard.

The label to be attached to all switchboards provides a simple Do’s and Don’t’s guide to what should and should not be done.

RECs, licence holders and LEIs can obtain further labels from ESV.

The messages from the campaign are simple:

- Do not work “live” – always disconnect the electricity supply before starting work.
- The human costs of serious injury sustained by electrical workers at “live” switchboards can be horrific and can affect the lives of many others.
- Working “live” should never be contemplated unless there are exceptional reasons why it should be done. Even then the work should not be done until a full risk assessment has been carried out. The work should only begin when all appropriate precautions have been taken, including wearing safety clothing and using safety equipment.
- Electrical workers have the right to refuse to work “live” – no matter what the circumstances – and there should be no ramifications as far as their jobs and careers are concerned.
- Negotiate with customers at all times to find a suitable time when work can be carried out with the supply switched off.
- Explain the dangers to people and equipment when working “live”.

The brochure will ask a few pertinent questions and make statements such as:

“You know it’s unsafe and risky to work “live” on switchboards and other electrical installations – so why do you keep doing it?”

The fact you’ve been doing it without incident for years does not mean an accident is not waiting to happen.

Will you be next? Are you happy to become another electrical-related injury statistic?

Have you considered what sort of example your are setting apprentices, young electricians and other workers?

You may not have much concern for your safety, but have you thought of others – your family and work colleagues? ”

Serious injuries

The brochure reminds the industry of two recent incidents in which licensed electricians have been seriously injured because of accidents involving “live” switchboards.

In one incident, the electrician received significant burns to his body, hands and face and required immediate hospital treatment. He may not resume a normal lifestyle.

After another incident involving a “live” switchboard, the electrician concerned received severe burns and other injuries. He spent over a month in hospital – three weeks of them heavily sedated to allow injuries to heal. Six months later he still had not fully recovered.

The Electricity Safety Act

Victoria’s Electricity Safety Act requires that contractors and electricians do not expose themselves to unnecessary risk.

Section 43 (4) of the Electricity Safety Act states:

“A person carrying out electrical installation work must ensure that –

(a) all electrical circuits or electrical equipment handled in the course of that work are disconnected from the electricity supply; or,

(b) adequate precautions are taken to prevent electric shock or other injury in the handling of electrical circuits or electrical equipment in the course of that work. Penalty: 40 penalty units.”

A Melbourne electrics company has come up with its own solution to help reduce incidents of electricians working on “live” switchboards. See page 30.

energysafe
VICTORIA
The Place To Be

DANGER – DO NOT WORK “LIVE”

DO'S	DON'TS
– Do plan and discuss job	– Don't try to save time by eliminating procedures and a risk assessment
– Do test with suitable instruments	– Don't allow customers to leave supply on if unsafe
– Do isolate circuits to make safe	– Don't work on energised equipment
– Do confirm isolations are correct	– Don't overlook isolating and proving all equipment and control circuits are safely isolated
– Always confirm connections are correct	
– Always test completed work for compliance with the Wiring Rules (AS/NZS 3000)	

The label for fixing to switchboards and other electrical installations. A page of the labels is supplied with this issue of the magazine.

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Phone: (03) 9919-7300

Mob: 0428-580-681

Email: tom.darrington@vu.edu.au

THE IMPORTANCE OF NOT USING DEFECTIVE APPLIANCES

The importance of not using defective appliances has certainly been driven home for a Mornington Peninsula man who virtually lost the use of his left arm after contacting live parts of an ordinary home washing machine.

What was not so ordinary about this particular machine was the damaged fascia or control panel and the resulting exposure of live terminals. The injured man acquired the machine second-hand a considerable time ago – a factor which can so often contribute to something going seriously wrong.

The good news is that the man – a professional sportsman who depends on both arms for his living – is likely to fully recover with the natural repair of arm muscles, but it could have been so much worse.

The photograph alongside restaging the incident provides a good idea of what went wrong.

When the outlet pipe of the machine started spraying water on the floor, the victim moved quickly to turn it off. He put the thumb and fingers of his right hand on the dial to press the on/off button, and placed his left hand on the broken control panel and live terminals to exert the required force.

Not surprisingly he received a severe electric shock.

After the incident a neighbour called the ambulance and the injured man spent two nights in hospital before being released to be looked after by relatives. We wish him a speedy recovery.

Hopefully RECs, LEIWs and LEIs will assist as much as possible in getting the message through to the community: "Do not use defective appliances."



VALE LINDA WILSON

Victoria's electricity industry mourns the passing away of Linda Wilson, who will be remembered particularly for her outstanding work in the field of health and safety across the industry.

Linda was the Manager of Health and Safety for Alinta and was actively involved in a number of industry committees involved in health and safety.

Her funeral service, which was attended by large numbers of industry representatives, was held at the Victoria Police Academy Chapel, Glen Waverley, on 22 July 2005 – the day which would have been her 38th birthday.

Linda joined the SEC in January 1986 and was involved in a number of human resource activities throughout the organisation before being appointed Health and Safety Manager for United Energy, now Alinta, in April 1995.

Linda's involvement with health and safety in the industry was considerable. At various times she had been: Chairperson of the Bluebook Committee, Convenor of the Greenbook Committee, a member of the ESAA Health and Safety Network, a member of the OCEI convened Lineworker Registration Committee, a member of the VESI Passport Committee, and a member of the VESI Linesmans Handbook Committee.

Director of Energy Safety, Ken Gardner, said: "Linda made an enormous contribution to health and safety in the Victorian industry. Her death at such a young age is tragic, and her knowledge, commitment and enthusiasm will be greatly missed."

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an article supplied by Maintenance Systems Consolidated

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Since its launch, Maintenance Systems Consolidated P/L have supplied the low cost Irisys IRI 1011 thermal imaging camera to a wide variety of customers, both large and small. All these companies find the Irisys ideal for finding hot spots on electrical switch boards and componentry as well as for checking motors, pumps, gearboxes and other mechanical equipment.

The Irisys is also available in both high temperature (300°C and 1000°C) options and increased FOV – field of view (10°C and 20°C) – options. The device allows non-contact temperature measurement for industrial applications and is suitable as a diagnostic tool for workshop personnel, field service technicians and tradespeople.

Use of the system ranges from the traditional industrial predictive maintenance applications such as the inspection of electrical and mechanical plant, through the design, troubleshooting and maintenance of domestic and commercial heating, air conditioning and electrical installations, to vehicle maintenance and automotive engineering.

Similar in size and appearance to a small digital still camera, the imager incorporates complete optical imaging and microprocessor systems, built-in visual laser aiming device and one-hand control. The optional handle and slot-in Pocket PC can either be click-fixed to the imager to form a single, one-hand operated unit with an integrated display, or can be detached for two-handed operation of the system.

Full product specifications available at MSc website: www.maintsys.com.au

Contact Bret Jones, Maintenance Systems Consolidated (MSc) on: Tel: (03) 9761 5088 Fax: (03) 9761 5090 Email: info@maintsys.com.au

LISITING OF LICENSED ELECTRICAL INSPECTORS

This directory page listing of Victorian licensed electrical inspectors has become a regular section in the magazine. One additional inspector has been added since the list was last published. If you are an LEI and are not featured in the listing but would like to be included in future issues, please contact Melinda Djirkallis at ESV on (03) 9203 9700 or by email at mdjirkallis@esv.vic.gov.au

We believe the feature will provide LEIs with a number of benefits. Apart from advertising electrical inspection work, it could also inform readers of the range of other services offered by licensed electrical inspectors.

LEIs might offer consultancy services covering such activities as the design of electrical installations and acting as agents for registered electrical contractors to lodge certificates of electrical safety electronically and electricity supplier work.

Notes

These inspectors/companies are the ones that have provided permission to ESV to release their details.

Letters refer to Licensed Electrical Inspector classes (refer to page 10 of the handbook entitled "The Certificate of Electrical Safety System Explained") for further information. The information is correct to the best of our knowledge, at the time of publication. Prompt advice of any change of address details will ensure the publishing of correct information.

Disclaimer

The Licensed Electrical Inspectors advertising hold themselves out as persons/companies having the expertise and competence to carry out the advertised services. ESV does not endorse any advertiser or any advertiser in preference to another.

LEGEND

L:	Electrical wiring and electrical equipment installed in installations comprising a low voltage single phase, two wire supply comprising consumers mains, a main earthing system or those parts of a main switchboard that are related to the control of the installation and the protection against the spread of fire;
G:	Any low voltage installations other than classes H, S, F, R and M.
H:	Electrical wiring and electrical equipment installed in hazardous areas within meaning of section 9.0 of the SAA Wiring Rules and protection equipment associated with hazardous areas.
V:	High voltage installations except high voltage wiring and equipment: (i) associated with electric discharge lighting systems; or, (ii) associated with X-ray equipment; or, (iii) associated with high frequency equipment; or, (iv) within self-contained supplied at low voltage.
S:	Electrical control and protection equipment associated with standby generation or co-generation electricity supply systems.
F:	Electric fences used for security purposes but not including electric fences intended primarily for the control or containment of animals.
R:	Electrical installations comprising remote area power supplies with a power rating exceeding 500 volt amperes not connected to a supply authority distribution system.
M:	Electrical; wiring and associated fixed electrical equipment installed in body-protected or cardiac-protected electrical areas of hospitals and medical and dental practices.

LICENSED ELECTRICAL INSPECTORS

Name	Location	Classes	Telephone	Mobile
Roland Anthony Henry	Braeside	H	(03) 9590 9377	
Noel Dennis Stephens	Barooga	L,G,H,V,S,F,R		0418 529 438
Leslie Kenneth Hartland	Bendigo	L,G,H,S,R		0408 509 424
Keith Henry Harper	Blackburn	L,G,H,V,S,F,R		0428 436 774
Douglas John Hourigan	Box Hill South	L,G		0413 997 038
Waleed Saad	Brunswick West	L,G		0412 531 564
Gavin Dowell	Carrum Downs	L,G,S,R		0418 386 909
Barry George Beaumont	Caulfield East	L,G,H,V,S,F,R,M		0419 358 642
Raymond John Swan	Croydon	L,G,H,V,S,F,R,M		0418 367 066
Ken James Davies	Echuca	L,G,H,V,S,F,R		0408 832 370
John Panetta	Eltham	L,G		0403 050 699
Noel Alexander Whitford	Exford	L,G,S,R		0417 083 968
Mark Leslie Buckley	Gisborne South	L,G,H,V,S,R		0407 849 768
Gary John Furniss	Hoppers Crossing	L,G,H,V,S,F,R		0418 450 090
Pauline Marie Palmer	Hoppers Crossing	L,G		0418 534 917
David Joseph Miskulin	Narre Warren	L,G,S,R		0407 568 228
Alexander John McCrindle	Rosebud	L,G,H,V,S,R		0409 941 613
Rodney Alan Brown	Shepparton	L,G,H,V,S,R		0419 112 814
Steve Kon	Sunshine West	L,G,H,V,S,F,R,M		0412 283 037
Peter Taylor	Torquay	H		0407 947 193
Robert Henry McGeehan	Wangaratta	L,G,H,V,S,F,R,M		0408 145 598
Inspection Companies			Telephone	
Electrical Inspections Victoria Pty Ltd		All classes	(03) 9739 4216	
TechSafe Australia		All classes	(03) 9574 6677	
Explosion Protection Technology		H	(03) 9707 3110	0408 367 078
Tri Inspections		All classes	(03) 9795 0213	0411 410 319
Abigroup Power Services		All classes	(03) 9294 8300	

Handy safety hint. Tell your customers: Never attach swings, clothes lines, hanging baskets, or the like around beams to which electrical wiring is attached.

Handy safety hint. Tell your customers: Portable generator sets can be just as dangerous as mains supply if misused. Before connecting to house supply check with your electricity supply authority.

INSPIRED BY LIGHT

Not long after his appointment as Manager, Facilities Operations, at the Victorian Arts Centre, Campbell Pfeiffer had his first experience of what it would mean to be responsible for the centre's iconic spire. He arrived at work to be greeted by an unusual message: a nearby resident had phoned during the night to say that he'd noticed that a single globe on the structure was out.

"It's such a public icon that everyone is conscious of it; people feel a real sense of ownership. The gentleman calls and speaks to the duty manager. I guess he must be sitting up there checking things out."

Pfeiffer retells this story without a hint of the annoyance that some of us might feel towards an ever-watchful neighbour. In fact, he's positively beaming as he talks about his job:

"I was so happy when I got this position – it's fantastic – I had a huge smile on my face so wide. It's a wonderful thing to say that you work on the spire."

While in the light of day it is an architectural icon, it's at night that the 162-metre structure, topped by its ten-metre mast, really comes to life. A complex control system kicks in and the light show begins. The pattern for the lighting effects is governed by a system that took two years to design and install, before being launched on Australia Day 1997 as a crowd of 35,000 people looked on.

Pfeiffer explains that the key focus for the designers of the system was to allow for flexibility.

"The main spire lighting program sets up the sequences and flows. There are 13,000 incandescent globes up there.

"The bud-lighting that you see flickering around the base of the spire is meant to symbolise the skirt of a ballerina ruffling. We also have ten floodlights up there; they're used for special events. For example, during the Olympics, the whole thing was set up in green and gold.

"The lighting board is versatile – it's set to a program but can also be run by an operator. On New Year's Eve 2000 the system was run manually from a board, so the lights were dj'd in the same way. It looked and sounded great."

With such a complex system, sitting out in the weather, there's bound to be the odd glitch. What action does Pfeiffer take when he, or his ever-helpful neighbour, notices a problem?

"I have to mention for a start that there are redundancies built into the globe system. When one node blows there is a second globe right to go. You have to bear in mind that in terms of the budget the cost is getting up onto the structure. There's a lot of planning involved.

"A bulk change of globes takes about a week to complete. The globes we use last about a year and we have a planned maintenance schedule – we're painting at the moment so it's a great

chance to check on everything. You're dealing with a system that is constantly exposed to the elements.

"On the spire's framework there are 45 sealed distribution boards. Each board has its own strip heater which is set to switch on if the temperature drops below 15 degrees – this stops condensation and prevents rusting of components. Additionally, the fibre optic injectors have a fan that keeps dust off the globe and prevents overheating. It is essential that the whole set-up has to be sealed. We test the units by putting them in a bucket of water for 24 hours before installation."

Because he doesn't hold a "ropes" safety accreditation Pfeiffer has in fact never been on the structure himself. Even venturing to the top of the Arts Centre building is out of bounds, given the risk posed during maintenance work of, say, a spanner falling.

"I don't personally go up – you do require a ropes qualification. When we did some work recently our consulting engineers had to go and do the course first.

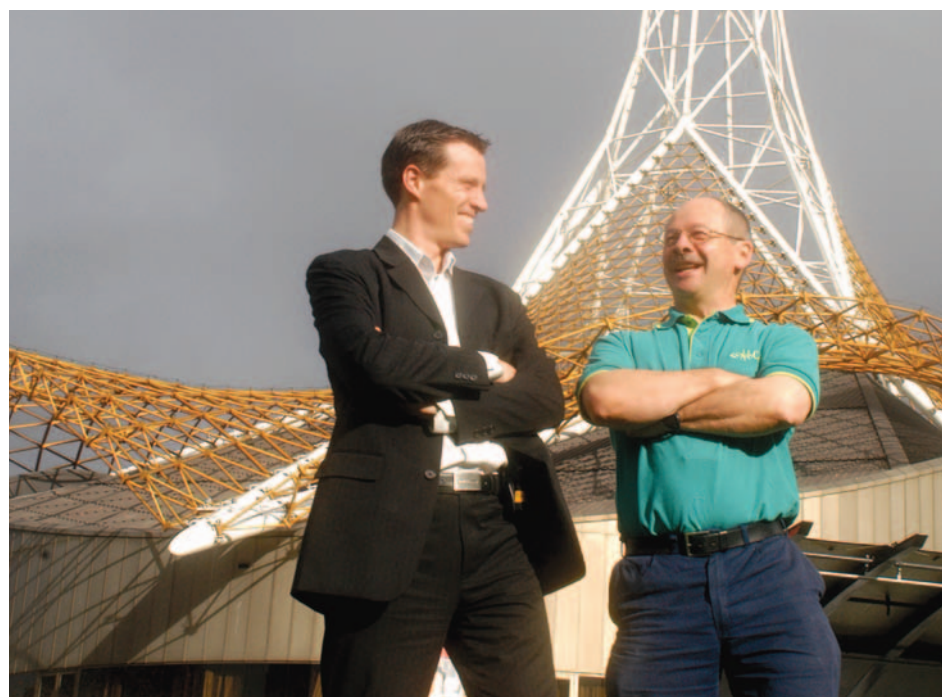
"We need a minimum of two people up there at all times – you can't have one person up there. There's the wind, the weather – you've got to bear in mind that the spire is one big lightning rod. The people who do go up are your rock-climbing types; that's what they do on the weekends. Safety is central. We're proud of our safety record, especially when you consider the winds up there and the possibility of rope tangles."

Pfeiffer never loses sight of the fact that everything that the Facilities Operations department does is to keep a centre dedicated to the arts, and the public that come to see them. "You don't have to have a strong interest in the performing arts to work here – it's not mandatory, but that's the way it seems to have worked out.



"We can't afford to feel like we're separate here in 'our' department – we all need to work together to present what we think is the best performing arts centre in Australia. We're here to celebrate the performing arts and the spire is a structure for the people of Victoria. The care and effort we put in is for them. We're open from 7am to midnight and we want as many people to come to the place as possible. We've got so many things going on: there's the Kylie exhibition, the Archibald portraits, lots of things. Everyone is welcome. And those lights flickering up there on the spire say that."

The Victorian Arts Centre Spire in all its glory. Manager Facilities Operations, Campbell Pfeiffer enjoys a lighter moment with electrician Len Belcher.



BACK IN THE NEWS: THE NYLEX SIGN SHINES AGAIN

Following a five-month \$300,000 restoration effort, the iconic Nylex clock in Richmond is operating again. The heritage-listed neon sign, installed in 1961, was out of action for 14 months before a restoration plan went into action in February this year.

The lights were switched on at 7.15am on June 29. After an initial hiccup, caused by a momentary glitch in the satellite-linked clock, the iconic sign resumed alternating between time and temperature.

The installation of new neon tubing, LED globes and lettering will, it is hoped, allow for the time-honoured pattern to be repeated for another 40 years.

The work in returning the sign to its former glory was completed by Sunshine company, Outdoor Elements. Project Manager for the restoration, Mr Adrian Naccari, says that those involved in the effort were proud to have played their part.

“Everyone enjoyed working on a Melbourne icon. A lot of work went into making sure that everything was up to scratch: we put in new footing points to silos, installed steel walkway handrails and new aluminium mesh in order to deter corrosion. The original walkways were made of timber, which had rotted.

“We had nil accidents on the site and the seven staff who worked on the job had a really positive attitude. We were very restrictive on who got to go up there. We are extremely happy with how the work went. What do I put that down to? Effective communication.

“We had a three-stage induction strategy for the staff: our own Outdoor Elements briefings, another for Nylex and a third for the silos themselves.”

Adrian is confident that the system that has been installed will run smoothly: “At the moment the maintenance schedule is as matters arise – it’s all brand new so things will be smooth. Our electrician, Ernest Henry, is keeping a good eye on things. But the beauty of it is that you don’t need to be up there a lot.”

Nylex Chief Executive, Mr Glen Casey is also happy with the restoration:

“Everyday, thousands of Melburnians travelling on the freeway, catching the train in from the suburbs, rowing on the Yarra and walking or riding on the riverbanks, will once again be able to check the famous sky sign for the time and day’s temperature.”



A Melbourne icon: the Nylex clock and temperature gauge shines again.

STATE GOVERNMENT’S UNEQUIVICAL VIEW ON NUCLEAR ENERGY

Anyone who might have wondered what the Victorian State Government’s view of the current nuclear energy debate was would have been left in no doubt after strong statements from the Minister for Energy Industries and Resources, Theo Theophanous.

In both a media release and when answering a question in Parliament’s Legislative Council, the Minister made it quite clear it was the policy of the Bracks Government that Victoria would continue to be a nuclear-free state.

“There is no community support for nuclear energy in Victoria, nor indeed Australia.

“It looks like nuclear energy suddenly has a number of friends in the Liberal Party. This includes the Federal Environment Minister Ian Campbell, and even the Prime Minister.”

The Minister said the opposition needed to tell people how they would deal with:

- The disposal of nuclear waste;
- The operation of nuclear power stations;
- Where nuclear power stations would be located; and
- What to do with nuclear power stations when they are closed down.

Mr Theophanous also released figures showing the cost of nuclear energy compared with other power generation fuel sources.

“The Liberal plan for nuclear energy is a plan to double the cost of energy for Victorians.

“The Liberal plan for nuclear energy would increase the average bill for Victorian families by 100% – that is \$800 a year,” he said.

SCHOOL LEAVERS URGED TO TAKE UP CAREERS IN THE ENERGY INDUSTRY

Minister for Energy Industries and Resources, Theo Theophanous, is urging school leavers weighing up their career options to consider a career in the energy industry.

Launching a recent CitiPower and Powercor campaign to recruit a record number of new apprentices and trainees, the Minister said a career in the energy sector was a good move for both the short term and the long term.

“The energy industry offers a secure long term future, with plenty of opportunities to develop specialised skills and earn expert qualifications. The electricity businesses are good employers and are looking for new talent,” he said.

CitiPower and Powercor are taking applications for apprenticeships and traineeships for Powerline Workers, Power Systems Electricians (electrical fitters), Electrical Testers, and Design Technical Officers.

PROSECUTIONS AND INFRINGEMENT NOTICES

The OCEI has recently taken legal proceedings against the following. Under the Privacy Act, **energy safe** is precluded from publishing the names of individuals charged with offences.

- A builder was charged with carrying on electrical contracting without being registered and carrying out electrical installation work unlicensed. The defendant was convicted and fined \$1000, with a further \$1000 costs.
- An unlicensed person was charged with carrying on electrical contracting without being registered and carrying out electrical installation work unlicensed. The defendant was convicted and fined \$2,500, with a further \$1800 costs.
- An unlicensed person was charged with carrying on electrical contracting work without being registered and carrying out electrical installation work unlicensed. The defendant was convicted and fined \$2,500, with a further \$850 costs.
- An REC was charged with interfering with a network asset so as to cause risk, failing to have prescribed work inspected and failing to complete a certificate of electrical safety. The defendant was convicted and fined \$3,000, with a further \$2,416 costs.

INFRINGEMENT NOTICES

TYPES OF INFRINGEMENT NOTICES ISSUED

Date	REC LEW Other	Offence Code	Offence	Penalty
Jan. 05	Other	6220	Unlicensed electrical installation work	\$500
	LEW	6228	Fail to complete certificate within time	\$100
Feb. 05	LEW	6219	Non complying installation work	\$500
	REC	6377	Non complying installation work	\$2,500
Mar. 05	LEW	6241	Fails to complete certificate	\$100
	LEW	6227	Fail to disconnect equipment from supply	\$409
Apr. 05	Other	6335	Closer than distance allowed in Table 40	\$205
	LEW	6350	Interfere with a network asset	\$200
	Other	6261	Makes unauthorised opening over line	\$200
	Other	6220	Unlicensed electrical installation work	\$500
	REC	6242	Fails to give certificate within time	\$100
	REC	6242	Fails to give certificate within time	\$100
May 05	LEW	6250	Supply non complying equipment	\$409
	LEW	6211	Unregistered person carries out work	\$511
	LEW	6228	Fail to complete certificate within time	\$102
	LEW	6242	Fails to give certificate within time	\$102
	LEW	6243	Fails to lodge copy with the Office	\$102

Please note: No Infringement Notices were issued in August 2004, December 2004 and June 2005.



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- Ecco Security Services Pty Ltd, unregistered, was charged with carrying on electrical contracting without being registered. The company was fined \$100 without conviction and ordered to pay \$600 costs.
- An unlicensed person was charged with carrying out electrical installation work unlicensed. The defendant was fined \$100 without conviction and ordered to pay \$600 costs.
- A Supervised Worker's Licence holder was charged with seven counts of carrying out electrical installation work without effective supervision. The defendant was convicted, fined \$850 and ordered to pay a further \$1734 costs.
- An unlicensed person was charged with carrying out electrical installation work unlicensed. The defendant was fined \$750 without conviction and ordered to pay costs of \$1444.50.
- BD Chipp Electrical Contractors, an REC, was charged with failing to have prescribed work inspected, failing to test work and failing to complete a certificate of electrical safety on time. The defendant was convicted, fined \$1000 and ordered to pay \$1851.40 costs.
- Avon Electrical Pty Ltd, an REC, was charged with failing to have prescribed work inspected and permitting a person to carry out work that does not comply with the Electricity Safety Act and regulations. The company was fined \$2500 without conviction and ordered to pay \$1628.50 costs.
- A licensed electrician was charged with installing unsafe electrical equipment, failing to take precautions to prevent electric shock, non compliant wiring, failing to complete a certificate of electrical safety in time, and failing to report a serious electrical incident. The defendant was fined \$2500 without conviction.

	Nov 2004	Dec 2004	Jan 2005	Feb 2005	Mar 2005	Apr 2005	May 2005	Jun 2005	Total
Use	4	0	2	3	1	4	5	0	19
Supply	2	0	0	0	1	0	0	0	3
Other	0	0	0	0	0	1	0	0	1
Total	6	0	2	3	2	5	5	0	23

ACT REPRESENTS NEW ERA IN WORKPLACE SAFETY SAYS WORKSAFE

The new Occupational Health and Safety Act which came into force on 1 July 2005 marked the beginning of a new era, said WorkSafe's Executive Director, John Merritt.

On the eve of the introduction of the new Act, he said that while there were differences of opinion about some detail of the updated laws, the business group VECCL, Australian Industry Group, Victorian Trades and Labour Council and WorkSafe were committed to reducing workplace deaths and injuries.

"From the boardroom to the tearoom, this is a subject that should be discussed, and acted on. High safety standards are a fundamental part of doing business, or working," Mr Merritt said.

"The new legislation gives employers and workers the opportunity to commit to higher safety standards so that a genuine step-change can be achieved to reduce the physical, financial and social cost."

More than 32,000 people made claims for workplace injuries in the 2003-04 financial year at a cost to the employer-funded workplace injury insurance system of more than \$1.2 billion.

Eleven people have died in (calendar) 2005 compared with 18 at the same time last year.

Mr Merritt said while the 1984 OHS Act served Victoria well, changing community expectations and working arrangements over the past 20 years required the legislation to be updated.

"The new Act, now being promoted through television and press advertisements, provides more clarity about health and safety requirements and retains the fundamental need for employers to provide and maintain a safe workplace and for employees to work safely."

Some of the major changes

- WorkSafe is required to provide greater practical assistance to help businesses and workers meet safety obligations. This includes a quick internal review process concerning decisions made by WorkSafe inspectors.
- Limited right of entry for union officials with permits obtained from the Magistrates court after compulsory training.
- Increased fines, and introduction of non-financial penalties to be imposed by the courts. Maximum fine for an individual \$184,050, company \$920,250.
- New safety responsibilities for senior company officers.
- Increased consultation about health and safety issues required from 1 January 2006.

WorkSafe says it consulted widely in the lead-up to the new legislation taking effect and created detailed information about how to comply with it. Public and industry-specific briefings across Victoria were attended by about 15,000 people.

Further information: Call the WorkSafe Advisory Service on 1800 136 089 between 8:30am and 5pm Monday to Friday, email advisoryservice@workcover.vic.gov.au or write to Advisory Service, PO Box 4306, Melbourne, 3001.

Handy safety hint. Tell your customers: Never leave an electrical appliance where it can fall into the bath or basin. Don't leave it unattended with children. Unplug after use.

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NEW RULES PROMISE GREATER CLARITY

Hot off the press are the revised Victorian Service & Installation Rules (SIR) outlining clear and up to date requirements for the connection of customers' electrical installations to the Distribution Network.

The rules, which represent the "Reasonable Technical Requirements" of AGL Electricity, CitiPower, Powercor Australia, SP AusNet (formerly TXU) and United Energy Distribution, as referred to in the Electricity Distribution Code, come into effect from September 1 this year.

Around 100 representatives including local and interstate distributors and regulators, registered electrical contractor (REC) organisations, electrical inspection firms, manufacturers of electrical equipment and training organisations attended the public launch of the revised Rules, on June 17, 2005.

Chairman of the SIR Management Committee, Ken Greenway, says the updated document incorporates the November 2001 and October 2003 amendments and is designed to be much more user friendly.

"Obsolete information has been deleted and new sections and drawings offer greater clarity," Ken says.

"The rules are the 'missing link' between relevant pieces of legislation," added Ken Gardner, the Chief Electrical Inspector.

A number of application forms for frequently requested works have been included and can be photocopied from hard copies or printed from the document on line.

New clauses include dispute resolution, equipment acceptance and labelling, subdivisions and the labelling of meter panels with street addresses.

Ken Greenway urges RECs to take a look at the changes in advance of them taking effect from September 1.

"The new Rules won't affect current work practices but registered electrical contractors will need to be aware of future changes relating to points of attachment, labelling of meter panels and service protection device requirements.

The Rules generally allow for one point of supply (POS) and one set of consumer terminals per property.

"This is a matter of good engineering practice and minimises electricity safety risk, however the Rules allow for some discretion by distributors.

"It is essential to submit a plan of any proposed multiple occupancy or subdivision and to confirm the supply arrangements prior to any works commencing. This will avoid any unnecessary rectification works.

"We have included supplies to 66kV and embedded generators so customers can make sure their proposals are appropriate at the planning stage," Ken Greenway says.

Where installations are supplied from a transformer with a capacity of 500kVA or less the revised prospective short circuit current values of 6kA phase to earth and 10kA between phases, for 0.01 of a second and 0.4 of a second immediately beyond the service fuse apply.

Ken Greenway urged RECs to calculate the installation's cable and equipment capacity to manage prospective short circuit current, previously known in the SIRs as fault current.

"If you have any doubts, call your local distributor," Ken says.

The new document includes contact details for all the Victorian distributors. It also clearly outlines costs associated with works at the interface of the distribution network. This transparency of costs will take some of the pressure off RECs explaining the charges to their customers.

RECs also need to be aware that service raiser brackets and direct metering enclosures marketed by electrical wholesalers now need to be accepted prior to their connection to supply. These devices will now be labelled to demonstrate they comply with the Management Committee's specifications.



Ken Greenway,
Chairman of the SIR
Management Committee.

There are more stringent requirements for the reuse of wooden meter boards and panels including a requirement to label all meter panels with the correct street address. Other changes include a new maximum height of 2.1m for panels with direct metering and a lowering of the minimum height to 0.5m for multiple occupancies

Ken says there is a strong focus on safety in the document and new clauses outline the regulatory requirements of No Go Zones and Dial Before You Dig. The rules require points of attachment to be accessible in accordance with the Occupational Health and Safety Prevention of Falls Regulations.

Many of the alterations to the Service and Installation Rules are designed to compliment the Wiring Rules, which are also under review.

The revised document can be viewed on the SIR Management Committee website – www.victoriansir.org.au. Hardcopies are available at Information Victoria, various electrical wholesalers and electrical contracting and inspection organisations. Further queries can be directed to the SIR Management Committee through the website.



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FAULTY BATTERY CHARGER CAUSES FIRE?

The OCEI has investigated a fire which destroyed a large wooden storage shed and which might have been caused by a faulty battery charger. Apparently a tractor battery had been connected to the charger about four days earlier and had not been disconnected.

Investigations revealed that, while the shed had permanently installed fixed wiring, it was not connected to the electricity supply. The battery charger was connected via a long 240 volt extension lead.

The extension lead supplying the battery charger was connected to the din rail mounted socket outlet on a main switchboard. The extension lead actually consisted of three 30 metre long extension leads joined together, and was protected by a 40 ampere / 30 milliampere residual current device (RCD) and a 20 ampere miniature circuit breaker.

Only the cement stumps and tin sheeting from the roof were left of the shed after the fire.

The battery and battery charger were located in the ash of the fire. There was no name plate or any other means of identifying the make or model of the battery charger.

The OCEI investigation concluded that it was possible that if a fault occurred on the secondary side of the transformer in the battery charger, the residual current device (RCD) would not identify the fault and operate to disconnect the circuit.

If the fault occurred on the primary side of the transformer in the battery charger, the impedance of the 90 metre length of extension lead may not have allowed enough fault current to flow in the circuit to cause the 20 ampere circuit breaker to operate and disconnect the circuit.

It was concluded that the fire had most probably commenced in or around the battery or battery charger but no conclusive cause of the fire was found.

NEW ERA FOR ELECTRICITY METERING

The rollout of new "smart meters" for Victorian electricity users is on track.

Minister for Energy Industries and Resources, Theo Theophanous, said that the new meters will start being rolled out in 2006 – and will help consumers to save money on their power bills.

"Interval meters have the potential to make consumers more aware of their level and pattern of energy use, leading to the more efficient use of our energy supplies," Mr Theophanous said.

"Standard meters have been used for around 100 years, but they no longer fully support the information requirements of the modern industry.

"Interval meters will measure real time electricity consumption, which gives electricity retailers the ability to better understand how much power consumers are using and when they're using it, meaning electricity generation patterns can better suit demand, particularly during peak times.

"The result will be improved competitiveness and efficiency of the energy market in Victoria, which will contribute to future benefits to electricity consumers and the economy generally."

The timetable, devised by the Essential Services Commission, will commence in 2006 for the largest 40 per cent of consumers and 2008 for all other consumers.

- Largest electricity consumers (above 160 megawatt hours (MWh) per annum) will have an interval meter by 2008.
- Those using below 160 MWh per annum but above 20 MWh per annum will have an interval meter by 2011.
- The 1.3 million consumers who do not have dedicated off-peak metering will begin to receive interval meters on a "new and replacement" basis from 2008.
- Remaining customers with dedicated off-peak metering will have an interval meter by 2013.

The cost of the interval meter rollout will be built into network charges paid by electricity retailers.

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NEW POLICY FOR RE-ISSUING ELECTRICIANS' LICENCES

Electricians who have not renewed their licenses or who have allowed them to lapse for whatever reason under the current legislation and regulations may have to undergo the appropriate skills assessment before a new license can be issued, according to a new policy developed and issued by the OCEI.

THE POLICY

The policy document released by the OCEI in April this year reads:

"In relation to electricians who have made a decision to discontinue their licence or let their licence lapse and applying for a current 'A' Class Electrician's Licence, the following conditions are required to be met.

- "Persons who have not renewed their electrician's licence under the current legislation and regulations (since 1999) and, are not able to demonstrate that they have been working in the industry (which may include working interstate under an electrician's licence or in a technical role) over the past five years are required to undertake and successfully complete the LEM (Licensed Electrical Mechanics Assessment) or the new LEA (Licensed Electricians Assessment) to demonstrate competence and skill before a new electrician's licence is issued.

"Note: This policy does not relate to persons who have continued to maintain and renew their licence."

As background to the policy, the policy document states that as part of the continuous improvement to licensing processes and procedures a policy is needed to communicate the requirements for people who have decided to discontinue their licence, let their licence lapse or not renewed their licence.

"Previously, licence holders who have held an electrician's licence, being an "A" Grade Licence or Unrestricted Licence, who have let their licence lapse, would be able to obtain a current "A" Class Electrician's Licence by simply completing an application form and making reference

to the previous licence within that application, with no restriction on the timeframe that the licence has not been renewed.

"This may include a person, who previously held a licence, has been out of the industry for a considerable amount of time (prior to 1999, when the current legislation was introduced and new regulations made, as well as the introduction of the new Wiring Rules AS/NZS 3000;2000).

"As such, there have been indications these people may have not maintained their skills and competence and it would be highly unlikely that they would be familiar with the current Electricity Safety Act 1999, Electricity Safety (Installations) Regulations 1999, associated Australian/New Zealand Standards (Wiring Rules), other relevant and critical standards, relevant Codes of Practice, Guidelines and Industry Agreements."

The policy document states that because of this, the OCEI has developed a policy only for persons who have previously held an electrician's licence but have not renewed their licence in accordance with the current legislation and regulations, that were introduced over five years ago.

"Such persons may be required to undertake a relevant assessment to ensure that their skills and competencies are satisfactory to undertake electrical installation work prior to a licence being issued.

"Disconnect/reconnect applicants who have let their licence lapse, or do not require their licence, are required to demonstrate their ability to successfully carry out the required functions by completing the current course work and assessment."

The document concludes: "This policy has been implemented to ensure that appropriate standards are maintained in the industry."

Handy safety hint. Tell your customers: Do not use a portable electric radiator in the bathroom. A permanently installed heater is much safer.

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Ken Gardner, Chief Electrical Inspector

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PUBLIC SAFETY IS A MUST



The recently announced industry new safety initiative, "Voluntary Home Inspection Scheme" is something that RECs should actively support, according to NECA CEO Philip Green.

"We see the program offering householders a proactive method of not only ensuring their family's safety, but also a way of protecting their major asset, the family home".

With many older style properties still having their original wiring, there is an ever increasing risk to occupants. Contractors see instances every day when called to remedy faults where wiring, switchboards, outlets and fittings are not compliant and safe.

According to the then Chief Electrical Inspector, Ken Gardner, this new initiative is set to provide some major business opportunities for contractors who become registered as an Approved Home Safety Inspector. The on-line program is scheduled to be launched to industry in August this year and it is intended to promote the scheme to the public later in the year through industry bodies such as the electricity retailers and other parties such as real estate agents.

The OCEI/ESV has created a set of guidelines that applicants need to meet which include an on-line training assessment, completion within the last twelve months of an Installation Testing Course, provide documentation that demonstrates their competency to perform the inspections and finally to have the necessary public liability and professional indemnity insurance.

NECA can assist those contractors wishing to take advantage of this program through their well established and recognized Installation Testing Program. Philip says that the training course was developed specifically in response to calls from the OCEI for the industry to improve their skills in this critical area. The overwhelming response to the course has been positive with many of the participants commenting on how good it was to refresh their skills.

"We are scheduling 2 courses a month between now and the end of the year to meet the expected demand".

The other area that NECA can assist RECs with is the issue of Professional Indemnity insurance. Philip explains: "We found the demand for this kind of insurance growing at a rapid rate and our members were complaining of the high cost of this type of insurance. It took us over twelve months of hard work to finally develop, in conjunction with one of the world's largest insurers, a product that is a great fit for our members. It provides the necessary cover at a very affordable price."

"We see this program as an extremely positive move by the OCEI/ESV similar in kind to the campaign to introduce RCDs. The issue of safety is paramount, not only for those of us who work in the industry, but importantly for the consumer. It is very encouraging to see the new Office of Energy Safe Victoria providing the lead, not only in name but also in practice. We look forward to continuing our strong relationship developed over a long period."

NO SUPPORT FOR SHORTENING ELECTRICAL APPRENTICESHIPS

The issue of shorter apprenticeships is currently in the news and a recent EPIC Industry Training Board forum with the topic "Shorter apprenticeships: Choices and Consequences" produced some interesting debate.

The overall conclusion from the discussion was that while "one size does not fit all" as far as all apprenticeships were concerned, the electrician apprenticeships of four years was appropriate and should remain in place.

The moderator for the forum was ABC Radio talk show host Jon Faine, and the speakers were Chris Stewart of the Victorian Government's Office of Tertiary and Training Education, Steve Balzary of the Australian Chamber of Commerce and Industry and Dean Mighell, secretary of the Southern States Branch of the ETU.

The common view of some of the speakers and members of the audience who joined in the discussions was that there would be no debate about shorter apprenticeships if there was not a skills crisis.

The electrician apprenticeships had evolved into the current four year program – having previously been seven years and before that nine years.

Dean Mighell made it quite clear the ETU would not support any reduction in the apprenticeship, particularly if it was some sort of "quick fix" to solve the skills shortage problem. "The four year apprenticeship is a proven model and we defend it."

Anyone who had undergone what Dean described as a "bastardised apprenticeship" would not be held in high regard by his work colleagues. There had to be a universal skills set in traditional trades.

Chris Stewart talked about the pre-apprenticeship programs run by the Government which were attracting young people into traditional trades, while Steve Balzary indicated the only way to fast track apprenticeship was if the apprentices concerned had undertaken some recognised prior training processes.

Dean said there was room for pre-apprenticeship programs within the apprenticeship training scheme. What's more there is flexibility in the current scheme with apprentices able to apply for early release if they want to.

It was also the view of the forum that more young people were taking up apprenticeships in the electricity industry. Chris told the audience: "There is a clear recognition by the electricity companies that they have not been recruiting enough apprentices but that is changing." In 2005, some 85 lineworkers have commenced their apprenticeships.

There were also appeals at the forum to support the TAFE training programs after claims that the system had been run down and morale was low among the teachers. Serious investment needed to be injected into the sector.

As Jon Faine concluded during the debate there was more agreement from the wide cross section of the audience than disagreement.

Handy safety hint. Tell your customers: Switch off all heating appliances if the power fails – fires have been caused when power returns unexpectedly. Combustible material must be kept clear of all heating appliances.



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FIREFIGHTERS AND WAITERS SWAP ROLES IN OUTDOOR HEATER SAFETY CAMPAIGN

A fire truck and four firefighters attending a busy restaurant is usually a sign of an emergency. But it was not so, when firefighters from the Metropolitan Fire Brigade (MFB), Country Fire Authority and Richmond's Pearl Restaurant waiting staff recently stepped into each others' shoes in a food-versus-fire challenge.

As part of the 'Take on the Critics' LP Gas and outdoor heater safety campaign, waiters - under the watchful eyes of firefighters - completed the important safety steps involved in setting up portable outdoor heaters and handling LP Gas, and firefighters attempted to serve perfect caffè lattes.

The challenge addressed the risks associated with the increased use of LP Gas for outdoor heating in the hospitality industry, which has led to a number of serious safety incidents and near misses. It also marked the launch of important gas safety guidelines that have been distributed to over 12,000 restaurant and catering industry businesses throughout Victoria.

"In the restaurant and catering industry the opinion of a critic is crucial to the success or failure of a business. Our approach with these guidelines is to make the industry become their own critic when it comes to gas safety," MFB Assistant Chief Fire Officer Chris Watt said.

"By taking on the simple safety measures provided in the guidelines, restaurant and catering owners and their staff will reduce the need for authorities, like the MFB, to visit their premises, leaving operators to concentrate on the real critics," Mr Watt said.

Developed by the Office of Gas Safety, with support from the Metropolitan Fire Brigade, Country Fire Authority and WorkSafe, the guidelines provide business owners and staff with a safety standard, as well as practical steps for the management of occupational health and safety, public liability and business risks in the use of LP Gas and portable outdoor heaters.

Victoria's Fire Services and waiting staff at Pearl Restaurant recently proved that the same level of attention to detail that makes a perfect caffè latte should also go into the management of outdoor heating. Waiting staff and firefighters swapped roles for just 15 minutes to understand the essentials of outdoor heating and service.



The guidelines emphasise that piped-in outdoor heaters are preferred. These heaters are installed by licensed gasfitters and are located out of harm's way, so they cannot be moved or knocked over. Best of all, they avoid the problem of storing and handling the cylinders that can turn into bombs in a fire situation.

The popularity of portable outdoor gas heaters has also introduced a new element for local authorities to manage when dealing with footpath trading. Local councils across Victoria are getting on board the campaign.

Copies of the "LP Gas and Outdoor Heater Safety Guidelines" and general gas safety information is available from the Office of Gas Safety/Energy Safe Victoria on 1800 069 588 or www.esv.vic.gov.au



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OCEI WARNING: BE CAREFUL WHERE YOU DRILL

The OCEI issued an important safety warning in June alerting people to the dangers of installing signs on electricity structures.

The warning followed a serious incident in which a 22 year-old man employed by a local authority contractor to install signs received a flash burn to the hand when he drilled through a saddle supporting an 11 000 volt cable running up the side of the pole.

The safety warning read: "Our investigation revealed that at the time of the incident, the victim was drilling a hole through a saddle supporting the 11 000 volt cable on the pole to allow him to fasten the sign on the saddle by the aid of a pop rivet.



The burned out drill.



The sign and the powerline.

"The OCEI strongly advises that under no circumstances is it safe to interfere with electrical assets.

"Where installation of non-electrical equipment to an electrical structure is required, prior written permission must be obtained from the network operator. The request to the network operator for permission must include the proposed method of attachment and the skill of the sign installer."

The pictures show the sign in question, blackened at the bottom where the rivet went through the saddle to the power cable. And, the "blackened" drill which was being used by the victim at the time of the incident.

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WARNING TO CHECK ELECTRICAL APPLIANCES

Unfortunately winter is often the time for a spate of house fires in Victoria – with electrical causes usually being blamed for them.

As reported in previous issues of the magazine, the Energy Safe Victoria now works closely with the Metropolitan Fire Brigade and the Country Fire Authority to improve the reporting of details of fires which could have been started by electrical causes.

Seeking ways to minimise or prevent house fires and howsoever they might be caused is a non-stop activity.

In July the OCEI launched an awareness campaign through advertisements in Melbourne suburban and regional Victorian newspapers warning of the need to ensure that electrical appliances are safe.

A copy of the advertisement is alongside.

FIRE ADVICE

It is also worth publishing the "Ten Steps to Home Fire Safety" recommended by the Fire Protection Association Australia.

1. Smoke alarms – make sure there is one on each level of the home;
2. Getting out – in the case of a fire in the home, occupants MUST leave. Do not return for pets or treasured possessions;
3. Dead-locks – it can be dangerous if the house is deadlocked and the keys are not in the lock or close by to effect a quick escape;
4. Heaters – should be at least one metre (three feet) away from curtains, furniture or flammable items. Never place clothing on heaters;
5. Wood fires – wood and similar fuels should not be burned in anything other than a properly constructed fire place, wood heater or wood stove. Open fires should be screened with a proper fireguard and NEVER left unattended;
6. Cooking – make sure there are no curtain or other flammable materials nearby. Only use cooking pots with safe, strong handles and properly fitting lids. If cooking oil catches fire, do not use water – instead turn off the heating source, place a lid on the pot, or use a fire blanket. Do not attempt to carry the pot of burning cooking oil to outside the house. If the fire cannot be put out immediately, the house should be evacuated;
7. Clothing – when cooking around an open fire, wear close fitting clothes as long sleeves and scarves can easily catch fire. If clothing catches fire, do not panic – don't run as this will fan the flames, drop to the ground and cover the face with hand, roll over to smother the flames;
8. Smoking - if anyone in the house smokes, make sure there are large ash trays around the house. Do not smoke in bed or when drowsy. Dropped cigarettes are a major cause of fire fatalities;
9. Electricity – arrange an electrician to check wiring and install a safety switch. Old electrical appliances or appliances with worn or frayed cords should be checked. If an appliance gives off smoke or a burning smell, switch it off immediately at the plug and remove the plug from the socket. If there are doubts about an appliance do not use it until it is checked by a qualified tradesperson.
10. Be prepared – have an approved fire extinguisher and fire blanket handy, and keep the garden hose attached to an outside tap.

The Fire Protection Association website is www.fpaa.com.au

Handy safety hint. Tell your customers:

It is safe practice to wear rubber or plastic soled shoes when using electrical appliances in laundries, on concrete floors, or out of doors



CHECK YOUR ELECTRICAL APPLIANCES ARE SAFE

Victoria's electricity safety watchdog, the Office of the Chief Electrical Inspector (OCEI), is urging the community to make sure that all electrical appliances in homes are safe – particularly those which are only used in the winter months.

The appliances of particular concern are heaters and electric blankets, which have been in storage for some months and may have been damaged.

The Chief Electrical Inspector, Mr Ken Gardner, said that winter is the time of the year for house fires which in a number of instances have been caused by electrical appliances not being maintained correctly.

"Unfortunately some heating appliances and equipment are put away when the cold weather ends and then pressed into service when winter comes around again without being serviced or checked to ensure they are safe.

"Tragedies have occurred in the past due to such neglect, and unfortunately they could happen again."

Some importance advice: if electric blankets have been removed from the bed for storage, place the blanket flat on the bed. Then energise the blanket for 15 minutes and check for any "hot spots". If there are any, it means the blanket has been damaged and it must be discarded.

The OCEI also provides the following advice to help prevent house fires and possible tragedies:

- Damaged appliances must be discarded.
- An annual maintenance check should be carried out on all heaters and visible dust removed;
- Flammable items such as curtains, clothing and bedding should be kept well clear of heaters;
- Young children must be supervised when close to heaters;
- Heaters should be switched off and unplugged at night or when people leave the house;
- Air filters on heaters must be cleaned regularly;
- Manufacturers instructions on electric blankets must be followed. For example they must be switched off when people go to bed;
- Electric blankets should only be used as an under blanket and kept fully spread out to prevent creasing.

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Media Release

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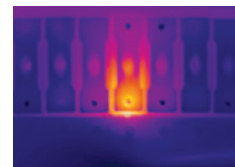
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NEW LAW FOR SECURITY INDUSTRY DOES IT MEAN YOU?

Hopefully by now, RECs and LEIWs who install security equipment will have become registered as required under the Private Security Act 2004 which came into force on 1 July this year.

Under the Act, security equipment installers are required for the first time to be registered with the Licensing Services Division (LSD) of the Victoria Police.

Installers had six weeks from 1 July to submit their application for registration. Provided installers had submitted their registration application within the timeframe, they are allowed to operate until the LSD decides on their application.

Installers must meet probity requirements to obtain registration. Installers must apply for a Private Security Individual Registration or, if they provide the services of other people to operate in the field, they must apply for a Private Security Business Registration.

According to the Act, a security equipment installer is defined as a person who is employed or retained to install, repair or maintain security equipment.

Security equipment includes camera systems, security alarms and electronic security devices. The full definition of security equipment is to be found in the Private Security Regulations 2005.

Applicants must provide supporting documentation with their registration application, including two written references from a prescribed class of

person. A list of prescribed class of persons can be found on application forms and at www.police.vic.gov.au

PROBITY REQUIREMENTS

New applicants – such as security equipment installers – must submit to a police records check when applying for registration. They will be subject to ongoing monitoring of criminal activity for the life of their registration.

Apart from requiring security equipment installers and another category - security advisers - to be registered for the first time, the main intent of the Private Security Act 2004 is to raise standards within the security industry.

In other changes, bodyguards need to be licensed for the first time and there are stringent requirements covering the activities of security guards, crowd controllers and investigators.

Licensing Services Division Superintendent David Dettmann said 250 security personnel convicted of serious offences will be stripped of their licences as a result of the new Act's enhanced probity standards.

A further 300 licence holders will be investigated in coming months to determine whether they meet the stricter probity standards.

Further information regarding the Private Security Act 2004 and Private Security Regulations can be accessed via www.police.vic.gov.au. Email all inquiries to licensingervices@police.vic.gov.au or call 1300 651 645.

PROFESSIONAL INSURANCE INDEMNITY GAP FOR ELECTRICAL CONTRACTORS

NECA has announced it has secured an integrated General and Products Liability and Professional Indemnity insurance facility for its members Australia-wide. The insurance facility will be underwritten by American Home Assurance Company and offered exclusively through IC Frith Insurance Brokers.

The facility will provide for automatic limits of up to \$20 million for General & Products Liability (with higher limits available) and up to \$10 million for Professional Indemnity.

Philip Green, NECA's Victorian Chapter CEO said, "Many electrical contractors have struggled to find (or afford) PI coverage and similarly many electrical contractors don't fully understand the coverage features and limitations of a standard General and Products liability policy. The new NECA facility has been designed to respond to our members' needs and creates an industry-wide benchmark."

The policy integrates a General and Products Liability policy and a Professional Indemnity (PI) policy into one product tailored specifically for the electrical contracting industry. The policy has been carefully designed by IC Frith to ensure the two coverage sections are complementary, to minimise gaps and overlaps. A single insurer for both sections also

eliminates potential disputes between two or more insurers and offers consistent coverage.

"Electrical contractors' need for PI insurance is driven by a number of factors, including contractual requirements," Mr Green said. "Contractors also need to consider other issues including any extended services they may offer such as design elements. The NECA-specific PI coverage focuses on financial loss suffered by third parties resulting from design."

Terry McGough of IC Frith said, "The need for a complementary General & Products Liability cover arose from research on the need for PI coverage. Hence, this section of the NECA policy covers advice and design that may result in personal injury and property damage. Key policy features under this section include broad definitions of the 'Insured' and of 'Personal Injury' which means better and broader coverage for contractors. It also provides automatic coverage in contracts where a contractor has indemnified a principal for loss suffered by a third party as a result of personal injury or property damage caused by the contractor."

The policy is offered on an annual basis (not a project-specific basis) and is subject to a minimum excess of \$2,000 for General and Product Liability and \$5,000 for Professional Indemnity claims.

GREAT INTEREST IN FINAL OUTCOME OF ELECTRICITY DISTRIBUTION PRICE REVIEW

The electricity industry, the State Government, electricity customers and many other groups will be awaiting with great interest the final decision from Victoria's Essential Services Commission (ESC) on the electricity distribution prices which will be applying during the period 2006 to 2010.

The ESC set an interesting agenda for the next few months when its draft decision, which was released in late June 2005, provided for some fairly significant price reductions across Victoria's five electricity distribution areas, varying from 14 to 26 per cent in 2006 – and further reductions in each subsequent year of the regulatory period up to and including 2010.

Naturally enough, the decision brought a number of protests from various quarters – not least the distribution companies themselves.

The draft decision called for average price decreases for customers paying some \$800 a year in electricity bills across the different distribution businesses per year as follows:

AGL	\$45
CitiPower	\$71
Powercor	\$82
TXU (now owned and operated by SP AusNet)	\$53
United Energy (Alinta)	\$75

In announcing the decreases, the ESC pointed out it was purely a draft decision which was now open to comment from stakeholders. The Commission will take note of further submissions, evidence and analysis before reaching its final decision.

So, what is the analysis for the draft decision?

In its announcement concerning the draft decision, the ESC said it would:

- Increase the financial rewards for outperforming reliability targets and the penalties for underperforming them;
- Extend the existing Guaranteed Service Level scheme which targets poorly served residential customers by reducing the payments thresholds and increasing the rates of payments;
- Introduce additional reporting requirements focussed on longer term network planning and performance.

"Although the revenues the distributors will be permitted to earn under this Draft Decision are less than they had proposed, the Commission is satisfied that the allowed revenues will be sufficient to finance the capital and maintenance expenditure required for the efficient delivery of reliable services to customers.

"They will also provide the capacity to finance a commercial return on equity and debt service obligations," said the ESC statement.

"However, after taking into account forecast growth in customer number and energy consumption, and the cost efficiencies achieved in the current period, the Commission's analysis indicates that the revenues required for financially viable business operations can be recovered at substantially lower prices than those applying in the current period."

In making the announcement of price reductions, the ESC said the reductions only applied to the distribution component of an electricity bill – which represents about 40% of the average household bill.

"The distributors have had a very good run for the last five years with real interest rates falling substantially, electricity consumption higher than expected and significant unanticipated efficiency improvements.

"But the prices paid by customers in the next regulatory period should now be adjusted to reflect current and prospective conditions in the electricity and financial markets."

The response to the draft decision has been loud and varied including some strong rejections of the proposals.

AGL said the decision was completely at odds with the views of governments and other key groups that regulators should take a light handed approach to regulation of infrastructure.

United Energy said it did not believe the proposed price reductions were reasonable.

CitiPower and Powercor said the ESC had opted for short term price cuts instead of taking advantage of the efficiency of the Victorian distribution sector to tackle significant long term electricity infrastructure issues.

The final decision is due in September.

Handy safety hint. Tell your customers:

Use only approved type hand lamps which are fitted with guards to protect the lamp. Home made hand lamps have caused many fatalities.



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WHAT CAN WORK EXPERIENCE STUDENTS UNDERTAKE

The OCEI has prepared a discussion paper on what work could be performed by a school student - typically a year 10 student who is seeking one or two weeks work experience as part of a school run program.

The paper has been produced as a result of questions from registered electrical contractors and schools, and looks at the work which could be performed by a school student.

While the Electricity Safety Act and the Electricity Safety (Installations) Regulations insist that all electrical work must only be carried out by registered electrical contractors and licence holders, there is an Order-in-Council G17 date 29 April 1999 which provides some flexibility.

It effectively means that a person under a contract of training can undertake electrical work under supervision of a licensed electrician without being licensed provided the electrical installation is not permanently installed.

Further, it means that a person completing an examination or assessment under supervision of a licensed electrician can carry out electrical work as part of that examination or assessment provided the electrical installation work is not permanently installed, such as at a Registered Training Organisation.

After assessing a number of other parts and sections of the Order-in-Council, a work experience student could be involved in the following electrical work under the direct supervision of a licensed electrician:

- A work experience student under a contract of training could be trained to carry out electrical work in a training environment in a workshop owned by a registered electrical contractor where the wiring cannot be regarded as permanent;
- If a licensed electrician believes a work experience student possess the proficiency to carry out work on the installation of conduits, wiring supports, cable trays or

wiring enclosures and has been trained in the appropriate safety aspects and limitations to that work, then the work experience student could carry out that type of work on site;

- The work experience student could assist carrying out electrical work on suitable electrical equipment that is easily transportable (that is, equipment weighs around 18kg) where the electricity supply has been clearly disconnected from electricity supply by the removal of a plug from a socket;
- The work experience student could work on any electrical installation or equipment in the process of manufacture at a place other than the place where it is to be fixed. For example, switchboards, wiring looms, relocatable buildings etc where the equipment is moved to site at the completion of manufacture;
- The work experience student could work on any electrical installation or equipment being repaired or maintained at a place other than where the installation or equipment is normally located. For example, switchboards, electrical motor controls, electrical motors etc that have been disconnected and moved to another location for repair or maintenance.

The paper says that a work experience student may be able to work on electrical installations that have an electricity supply operating at extra low voltage provided the licensed electrician directly supervising the student and the work ensures that the completed electrical work complies with the Wiring Rules (AS/NZS 3000:2000) and any other relevant standards.

Examples of this type of work could be related to PV systems, the installation of solar panels, remote area power supplies (RAPS), instrumentation, control and protection circuits, data and communications cables.

The full paper is in the "What's New" section of the OCEI/ESV website

FIVE STAR ENERGY RATING FOR NEW HOMES IS NOW LAW

From 1 July all new Victorian homes have to observe a five star energy rating to cut greenhouse pollution and save precious water resources.

To meet the standard, new homes will have to feature a rainwater tank for toilet flushing or a solar water heater.

In addition, pipe schemes using recycled water for household gardens and toilets will now count towards the five star sustainable housing standard.

Victoria's Planning Minister Rob Hulls said new homes will now be 50% more energy efficient for heating and cooling and will use 25% less water compared to the average two star dwelling.

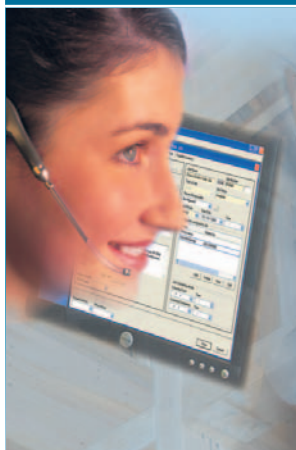
"While this will go a long way towards helping Victoria significantly reduce energy and water use and its greenhouse pollution, it also provides the 45 000 Victorians who purchase a new home each year with a house up to five degrees warmer in winter and ten degrees cooler in summer.

"Under current prices, homeowners will save around \$200 a year on electricity and gas costs for heating and cooling their homes, and \$50 a year on water bills. Savings can be even higher if residents of five star homes take full advantage of their energy efficient features and options," said the Minister.

He said solar hot water systems could reduce the amount of conventional energy used by 60%.

Handy safety hint. Tell your customers: Because water conducts electricity DO NOT touch electrical appliances or switches with wet hands. You could receive a fatal shock.

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DANGER LABELS FOR SWITCHBOARDS

A Melbourne electrics company has come up with a solution to help reduce incidents of electricians working on “live” switchboards.

LIVE with electricity has reported on two serious injuries being sustained in recent times because of the practice, and Energy Safe Victoria is currently working with the Victorian Chapter of NECA on a joint campaign stressing the dangers involved.

Fordham Electrics of Heidelberg West now supplies and fits red coloured “Danger” labels to the switchboards it manufactures or others it installs – no matter what the size or the situation.

There is a general label for all switchboards, and another label strictly for distribution switchboards with a circuit breaker chassis. Both labels are attached with screws to the outside of the switchboard.

The Labels are printed alongside.

Fordham Electrics Managing Director, Ray Ford, said his company had been working on methods which might assist with the problems and dangers for electricians working on “live” switchboards which in turn might cause risk of serious injury, and damage to the property and switchboard.

“The small cost of making and attaching the labels is insignificant compared to the possibility of someone being injured or property being damaged when working ‘live.’

“If the message on the labels is noticed and stops electricians or anyone else from attempting to work live on switchboards, then the labels are well worth the cost.”

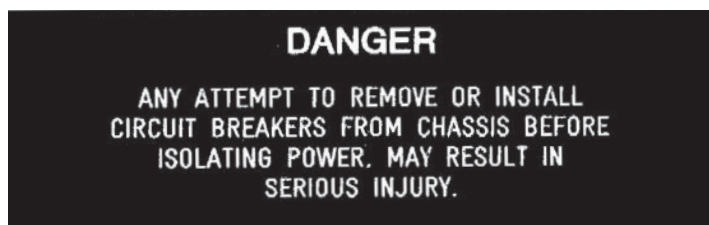
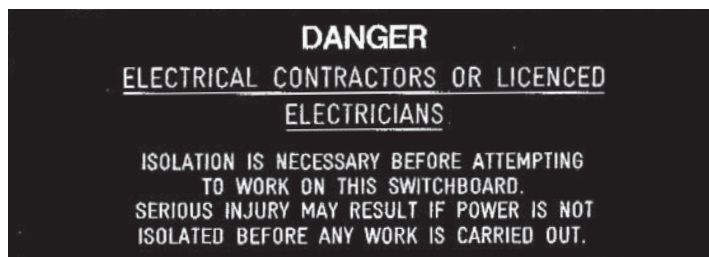
Director of Energy Safety, Ken Gardner, commended Fordham Electrics for its initiative.

“As an electricity safety regulator it is heartening to see Fordham Electrics being pro-active in addressing the electricity safety issue related to electricians working ‘live’ at switchboards.

“The human costs of serious injury sustained by electrical workers at ‘live’ switchboards can be horrific and can affect the lives of families and work colleagues.

“I commend your company for this safety initiative and hope that other switchboard manufacturers may follow your lead and provide additional labelling at switchboard to highlight the risks of working ‘live,’” said Ken.

(Page 13 – New initiative to discourage “live” work.)



THE ANSWER TO A FREQUENTLY ASKED QUESTION

This is a common question: Does the OCEI expect the underground route maps which are placed within a meterbox or switchboard, to have the depth of the underground recorded?

Here is the answer:

The requirements for recording of underground cables are detailed in the Electricity Safety (Installation) Regulations 1999, where Regulation 404 states:

“404. Route of underground lines

1. A person who carries out electrical installation work on an underground electric line must, in accordance with this regulation, record in a permanent form on durable card or other durable material and fix within the meter box or in a position approved by the Office the route of that underground electric line.

Penalty: 10 penalty units.

2. The record referred to in sub-regulation (1) must be fixed within 5 business days after the completion of the work and—
 - a. before the electric line is connected to the electricity supply; and
 - b. if the electrical circuits or electrical equipment handled in the course of the electrical installation work were not disconnected from the electricity supply, before the electrical work is first used after it is completed.
3. The route of the electric line must be recorded as accurately as practicable with a margin of error not exceeding 200 millimetres.”

The requirements to record the route of the underground cable are such that the information is required to be accurate to within 200mm.

While the requirements for the depth of the underground cable have not been clearly addressed, Energy Safe Victoria does require that the depth be recorded at the same position on the record card.

Although the requirements for the depth are outlined in the AS/NZS 3000:2000 Wiring Rules, the owner or occupier should be able to easily find the route and depth of the underground cable before undertaking any work in the vicinity of the underground electricity supply.

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COOKING A TREAT

BENGALI CHICKEN AND EAST INDIAN PILAU

The Office of Gas Safety, which has been amalgamated with the OCEI to form Energy Safe Victoria, publishes some terrific gas hotplate and BBQ recipes. Late winter and early autumn is probably not the time for BBQs so here's a warming delicious recipe to be prepared in the kitchen.

To start the ball rolling here is the recipe for Bengali Chicken and East Indian Pilau. But, before giving you the ingredients and what needs to be done to ensure a culinary success there are some important safety messages to deliver.

So please take notice of the following:

Always treat gas with respect

Always keep a fire blanket in your kitchen. Feeling cold? Don't use cooking appliances as heaters, they are not designed for this purpose.

Use a licensed gas fitter

A licensed gasfitter should check gas cooking appliances in accordance with the manufacturer's advice every two years. Call a licensed gasfitter immediately if you notice a strong odour, abnormal noise, excessive flame or unusual levels of heat.

Don't chance it

Treat gas with respect. While cooking, make sure the flame doesn't go out – gas can escape silently and invisibly. Never allow a child to cook without adult supervision. If you're called away, turn off the gas.

An important tip

If cooking catches fire, turn the gas off immediately, carefully slide the lid over the pan or cover the flames with a fire blanket – never pour water over the fire.

Another important tip

If using an oil spray, remove the pan from the cooker before spraying.



So, having taken notice of that important advice, this is what you need for Bengali Chicken and East Indian Pilau.

BENGALI CHICKEN

The ingredients for success:

- 1 chicken, cut into eight pieces
 - 4 tbsp vegetable oil
 - 1 bayleaf, 4 cloves, 1 cinnamon stick
 - 1 tbsp each of minced garlic and minced ginger
 - 2 tsp each of ground turmeric, coriander, cumin and chilli
 - 400ml water
 - 4 tomatoes, chopped
 - 1 large potato chopped
 - 1 cup cauliflower florets
- serves 4

And the method for success:

Heat oil in pan and sauté chicken pieces for 5 minutes. Remove chicken from pan. Add spices to pan and sauté for 2 minutes. Add tomatoes, chicken and water and simmer. Add potato and cauliflower and cook for 20-30 minutes until chicken and potato are tender.

East Indian Pilau

The ingredients for success:

- 2 cups basmati rice, rinsed well
 - 2 tbsp butter
 - 1 cinnamon stick, 4 cloves, 4 cardamon pods
 - 1/2 cup cashew nuts
 - 1/4 cup raisins
 - 1 tsp garam masala
 - pinch saffron
 - nutmeg, salt and sugar to taste
 - 800ml water
- serves 4

And the method for success:

Heat butter and sauté whole spices, nuts and raisins for 1 minute. Add rice and cook for a few minutes. Add water, stir in garam masala, saffron, nutmeg, salt and sugar. Bring to boil and simmer for 8 minutes. Cover pan with lid and cook further for 8 – 10 minutes until rice is cooked.

BON APPETITE

UNLICENSED WORKER ELECTROCUTED AFTER BREACHING SAFETY RULES

A coroner in Tasmania has found that a man, who was unlicensed, was electrocuted by faulty wiring while breaching several safety issues.

The coroner, Ian Matterson, said the deceased was electrocuted after coming into contact with a live terminal of an electrical junction box.

Garry Michael Barwick, 46, of North Hobart, died on 7 March this year while conducting electrical work with his father at Hobart's Hellenic Hall. The man was working in the ceiling cavity wiring new lights when the incident occurred.

In his findings, Mr Matterson, said the electrical junction box did not have the cover or lid required under the Wiring Rules. "I am satisfied that this breach of the Wiring Rules was the result of negligence by person or persons unknown."

The coroner heard evidence that after he had been in the cavity a few minutes, Mr Barwick called out "turn the power off" and "turn the power off quick". His father rushed to the switchboard but it was locked.

He found a barman who at first brought the wrong keys but returned two minutes later with the correct keys and the power was turned off. It was too late, however, and ambulance officers found Mr Barwick dead.

The coroner said that the two main issues that led to Mr Barwick's death were safety and non-compliant electrical installations or wiring.

"I am satisfied the deceased did not employ adequate safety precautions at his work site and undoubtedly this was a significant factor in his death."

He said an investigation showed Mr Barwick did not have adequate lighting in the ceiling and was not wearing adequate clothing.

He also found that Mr Barwick was unlicensed and did not isolate the relevant electrical circuit at the switchboard.

In his findings, Mr Matterson said that at the time of his death the deceased and his father had been qualified by prior training and experience as electricians but neither held a current electrical technicians licence under the Electricity Industry Safety and Administration Act 1997.

"The fact of not being licensed does not in itself equate to inefficiency but in this instance I am satisfied there is a semblance of correlation in that had the deceased held the appropriate licence then he may have undertaken more electrical work and gained further experience, and as a consequence his safety values and procedures may have been enhanced," said the coroner.

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