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FROM THE EDITOR

Welcome to Issue nine of energysafe. Elsewhere in this issue you can read a brief summary of the results of the ESV Customer Satisfaction Survey conducted recently which involved some 400 electrical stakeholders and 300 gas stakeholders.

I use the word “brief” advisedly as the actual report runs to more than 100 pages!

Some of the questions concerned the magazine with both sets of stakeholders asked whether they were aware of it and received it, whether they normally read it, and what words or phrases could be best used to describe it. It is gratifying that the responses across both groups was very high. Judging by the answers given, stakeholders both receive it and read it. They also provided some complimentary comments when asked for terms to describe it.

For electricity stakeholders, the term “informative,” “useful,” “a great way to deliver messages to the electricity industry” and “suitable to your needs” each achieved very high ratings – most of them well over 80%.

On the gas side, when asked if energysafe could be described as “useful,” “informative,” “suitable,” and/or “a great way to deliver messages to the gas industry,” there was also a very high rate of agreement for all statements.

Thanks for the encouraging responses. The answers to the questions about the magazine were just a few of the large number of encouraging responses about ESV’s services and the way they are provided which were received as part of the survey.

While it might be easy to sit back and congratulate ourselves on a job well done, we will not be doing that. Everything can be enhanced or improved and the magazine is no exception. We shall continue to develop the look and content and we continue to welcome all comments and suggestions.

It has been a busy few months for ESV and the energy industry and hopefully this issue will reflect what has been going on.

ESV received quite a deal of media exposure following the electric shock received by swimming star, Brooke Hanson, when getting out of a spa pool and we have reports on the swimming star, Brooke Hanson, when getting out of a spa pool and we have reports on the

The issue of dangerous downlights also hit the media – newspapers, radio and television – in other quarters in recent weeks with the Minister for Energy and Resources Peter Batchelor, ESV and the Melbourne Fire Brigade addressing the issue directly. The Melbourne Fire Brigade at the increased incidence of house fires resulting from downlights being too close to insulation.

ESV issued advice to property owners on how to make sure downlights are safe, and also the electrical trades about the provisions of the new Wiring Rules covering their installation. You can read about them in this issue.

The Minister for Energy and Resources, Peter Batchelor, also expressed his concern through issuing a press release and attending a media event demonstrating what can happen when insulation gets too close to downlights.

ESV has made a new television commercial for broadcasting later this year and into the future. We engaged the services of a real electrician and his advice is simple: Always use a licensed electrician, ask to see their licence and insist on a certificate of electrical safety when the job is finished. You can read about that also.

The gas side, we continue to be concerned about incidents involving loose connections between LP gas cylinders and outdoor appliances such as barbecues and heaters.

There was another death resulting from such an incident during the period. By the time you read this, ESV will have produced another commercial covering this very issue.

ESV has also commenced a round of consultations to inform the gas industry of the new approach it will be introducing to its processes for accepting gas installations and appliances. The change will mean among other things a bigger investment in raising the competency of gasfitters, and the provision of more support by ESV for apprentices and their trainers.

On the question of apprentices, we have articles about apprentice profiling and advice on getting licences. You can also read about the Electrical Trades Union (ETU) initiative to create much-needed opportunities for young Indigenous apprentices in the electrical, plumbing and construction trades.

The football season is approaching its exciting conclusion, and not to be left out energysafe also has a football component. He is no longer a playing “star” but ex-Essendon footballer and Melbourne grand final player.

FRONT COVER: Excuse the pun, but the safety of downlights in homes became a “burning” issue in the media and on television in recent weeks with the Minister for Energy and Resources Peter Batchelor, ESV and the Melbourne Fire Brigade expressing concern about them. The main front cover shot shows the sort of damage that can result from a fire due to downlights being too close to roof insulation. The other shot has been taken from a new ESV commercial which will be shown later this year. The main message of the commercial is: “Always use a licensed electrician.” You can read about the commercial and downlight issues in this edition.

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aut Bookings are now being taken for the next and subsequent issues of energysafe.
The fire hazards resulting from downlights being too close to insulation became a hot media topic for a couple of periods in June and July. Talk back radio, television news, current affairs programs and newspapers all “weighed in” on the issue. It all started in June from a call to the 3AW “Rumour File” with an allegation that insurance companies were refusing to pay out on claims for fires caused by downlights. In July a headline in a Sunday newspaper warned: “thousands at risk from halogen-light death traps.”

MAN DIES FOLLOWING EXPLOSION CAUSED BY LOOSE CONNECTION

ESV has investigated an explosion which occurred at a home in Noble Park in May in which a middle aged man received serious burns. He died in hospital a few days later. Severe structural damage was caused to the property by the explosion.

ESV inspected a portable gas heater, which was nearly 30-years-old, and a 9kg changeover LPG cylinder at the property. The connections were the same age as the heater. There was no apparent damage to either the heater or the cylinder – or the hose connecting them.

Tests were carried out and gas was found to be leaking moderately when the coupling into the regulator from the heater and attached to the cylinder was secured at normal tightness. It is ESV’s view that the cause of the explosion appeared to result from a failure to tighten the coupling sufficiently, probably as a result of some minor damage caused to it over the years. It appears that the heater and cylinder were located in the bedroom. While the victim turned off the heater before going to bed, he did not turn off the gas cylinder valve. It seems that gas escaped from the cylinder connection and built-up overnight.

Early in the morning, ignition took place followed by an explosion and fire during which the man received burns. Although his injuries did not appear to be life threatening at the time, he subsequently died.

AS 1596 – The storage and handling of LP Gas- provides limits, but wherever possible, the indoor storage and use of LPG cylinders should be avoided.

MINISTER URGES SAFETY CHECK OF INSTALLED DOWNLIGHTS

Energy and Resources Minister Peter Batchelor has urged greater vigilance by homeowners and electricians following increased concern by the Metropolitan Fire Brigade that incorrectly installed halogen downlights can be a fire hazard.

Mr Batchelor urged Victorian home owners to check the installation of downlights in their ceilings because of the risk that loose-fill insulation could catch fire if it came into contact with halogen downlights which burn at high temperatures.

“Properly installed, these lights pose no problem. But if incorrectly installed – for example if they are placed close to structural timber or become covered by insulation or ceiling debris – they can pose a substantial fire risk and risk to life,” Mr Batchelor told a media event in late July.

Mr Batchelor urged Victorian electricians and electrical contractors to immediately start operating under revised Wiring Rules due to come into force in 2008.

He said that Energy Safe Victoria was part of a national push to introduce more explicit regulations around downlight installation to guide electricians.

“New national regulations are currently going through a statutory consultation phase, but I urge electrical contractors and licensed electricians to take up the new standards straight away.”

The new Wiring Rules (AS/NZS 3000) will be enforced for all Australian and New Zealand electricians. The new rules will restrict use of downlights in ceiling cavities less than 200 millimetres in height, in response to concerns about fire risks in confined spaces.

The new regulations will apply to all new buildings, retrofits and new installations of recessed lamps. Energy Safe Victoria will also advise electricians to adopt the new regulations straight away.

Mr Batchelor said the fire safety issue came on top of concerns that many homeowners had installed low-voltage halogen downlights in the belief they were low energy lamps.

“Generally halogen lighting is not energy efficient because the halogens are installed in banks of four to six downlights, which replicate the output of only one or two incandescent or fluorescent globes. Consumers who want downlights without high energy bills or fire risk should investigate several lower-wattage, energy-efficient downlight options now on the market,” Mr Batchelor said.

The MFB has reported 57 house fires in Melbourne over the last 18 months which it puts down to halogen lights igniting roofing insulation, particularly “loose-fill” paper-based insulation.

See other articles in pages 16 and 17
- The proposed new standard covering the installation of downlights
- Statistics on downlight fires
- Comments by the Director of Energy Safety
- Some advice for home owners
ESV will introduce a new approach to its process for accepting gas installations and appliances. The change will mean among other things a bigger investment in raising the competency of gasfitters, and the provision of more support by ESV for apprentices and their trainers.

In other changes, ESV inspectors will be less visible to competent persons, but highly visible to gasfitters who have records of poor safety outcomes.

The major changes in the regulatory regime were outlined in presentations provided by ESV to an audience representing major gasfitting businesses at the Waverley Golf Club in early June.

In summary ESV will...
- change its regulatory approach and become fully focused on inspection, audit and compliance processes based on risk
- invest its effort in raising the general competency of practitioners in their premises and the field
- invest its effort in supporting apprentices and trainers in colleges of TAFE and the field
- monitor the safety performance of practitioners
- will be less visible to competent persons, and
- be highly visible to those with poor safety outcomes.

### Why the change?

ESV Executive Manager, Gas Installations and Appliance Safety, Stephen Brook, said a change of approach was needed because of low compliance with Complex Gas Installations (CGI) and a belief that the competency of some workers lay at the heart of the problem.

The extent of the problem is illustrated by the following statistics indicating the rate of compliance with CGI over three months from March to May this year.

- Completed CGI acceptances: 796
- Installations with Non-conformance: 150
- Percentage non-conforming jobs: 19%
- Individual non-conforming items: 438
- When broken down these figures represent:
  - Not to Standard (generally AS 5601): 98
  - Defects involving gas safety: 340

### The Way Forward in 2008

ESV Manager Complex Appliance Safety, Frank Larobina, outlined the organisation’s new approach which will involve the following areas:

**Education:** Greater input, primarily into TAFE and Registered Training Organisation programs;

**Competence:** New framework for Complex Gas Installations and Appliances and changes to regulations

**Inspection:** Less reliance on inspection as the single regulatory tool

**Audit:** Increased emphasis on auditing outcomes

Frank said one of the major benefits from the change was greater efficiency with businesses and gasfitters able to deliver customer services without an ESV inspection for the majority of low risk gas installations.

Thanks to the new approach, good performers will be recognised as ESV’s partners in gas safety, said Frank.

### The benefits for ESV

He said the change will result in ESV applying its resources proportionately to regulate and improve gas safety.

ESV will be able to apply its effort where it’s needed, on the basis of gas safety risk.

It would also allow ESV to engage with individual gasfitters, installation businesses and customers and provide an opportunity to explain the regulatory process and responsibilities.

Under the change, gas safety risks are owned by the person(s) who create the risk.

For gasfitters, submissions will need to explain proposals clearly with sufficient information for ESV to assess risk.

Frank said that as part of the new approach, ESV will need to put more effort and investment into analysis and planning; improve the quality of its communications; be transparent and consistent in what it expects of others and what it does; and, deliver on agreements it makes.

### “Conditional acceptance”

Towards the end of 2007 ESV will begin introducing “conditional acceptance”.

Frank said the ESV approach will be determined by the assessments of gas safety risk, with the regulatory outcome of inspection and/or audit placing the emphasis on compliance.

Under the proposed acceptance process, installations submitted to ESV may: be accepted following inspection (generally as things stand today); be accepted when ESV conditions are fully met, following inspection and/or audit; be accepted by ESV should it waive its conditions (chooses not to inspect or audit); not be accepted where ESV cannot confirm gas safety, and all submissions will have a documented outcome (accepted or rejected).

**Accepted or Rejected …?**

- Accepted based on the information of the perceived risk, and competence and record of the person responsible
- Rejected because of insufficient information and the person that is doing the work may not be competent ….. And will mean a resubmission.

ESV wishes to advise the gas industry – in particular, appliance retailers and gas fitters – that Type A gas appliances approved by the Queensland Government’s Department of Mines and Energy can be sold and installed in Victoria.

It means that Victoria now recognises three gas appliance certification authorities – the others being the Australian Gas Association and SAI Global.

Here is a sample Gas Device/Fitting Approval badge located on appliances approved by the Queensland statutory authority.

Acceptance of gas appliances approved by the Queensland authority is part of the normal convention whereby ESV and similar authorities accepts products approved by government gas safety regulators in other states under mutual recognition legislation.

Approval of a gas product by the Chief Inspector Petroleum and Gas with the Department of Mines and Energy is a certification by the statutory authority that the appliance so badged is safe to use in its intended application.
Handy safety hint. Tell your customers:

If an appliance needs adjusting or cleaning, switch off the power and pull out the plug – but not by the cord.

After extensive consultations across the electricity industry, the first stage of the review into the certificate of electrical safety system and the inspection process has been completed. A document has been prepared, and its accompanying recommendations are now being considered by ESV.

It is the first review of the system since its introduction in 1999, and its purpose is to assess whether the original objectives of the scheme have been realised over the last eight years.

ESV appointed an independent consultant to conduct the consultations, detail the comments received as part of the process, develop recommendations for the future of the system and prepare the review document.

ESV conducted 32 industry forums on the system between 30 April and 7 June 2007. Apart from ESV itself, the organisations involved in the forums included State Government agencies WorkSafe, the Energy and Water Ombudsman, Department of Primary Industries and the Plumbing Industry Commission.

Also involved were distribution companies; electrical inspection companies and their staff; training organisations; registered electrical contractors, both large and small; and industry associations including NECA, ETU, Institute of Electrical Inspectors and the HV Customer sub-committee.

Among other things, the forums canvassed the strengths and weaknesses of the present system and sought ideas for improving it. The consultations remained confidential.

A final position on the review has not been reached. ESV is working through the report and preparing a position paper detailing the options for the Minister for Energy and Resources, Peter Batchelor.

Once the preferred position is established, there will be time for further industry consultation and debate before the final decision is made. It is expected that the process will be completed before the end of the year.

Stay tuned for further information on the ESV website at www.esv.vic.gov.au

A 15-year-old youth is reportedly making a good recovery after receiving a severe electric shock recently when he climbed onto the roof of a church at Dandenong to retrieve a ball.

A minister at the church and a 9-year-old boy received minor shocks when they went to assist the youth.

A member of the congregation reported receiving an electric shock the previous day when fitting security meshing over an aluminium window at the church. The window was located immediately above the electricity meter box.

He said he received the shock when installing a 12mm self drilling stainless steel screw into the aluminium frame. Despite the shock he and a colleague continued to install the security screening.

While recovering well in hospital, the youth will require skin grafts on one of his arms.

In the opinion of an ESV investigator, the roof of the church became energised via conductive parts of the aluminium windows interconnected to metal parts of the roof structures when the screw penetrated one of the mains conductors located within the aluminium frame’s mullion.

Director of Energy Safety, Ken Gardner, said one of the lessons to be learned from the incident was the need for all electric shocks to be reported. “If the original shock had been reported, there is a chance the incident involving the youth would have been avoided,” he said.
A “REAL” ELECTRICIAN FEATURES IN NEW ESV COMMERCIAL

Introducing a “new face” of electrical safety – real life registered electrical contractor and licensed electrician, Mick Dillema, of Wandin Electrics.

Mick has been a licensed electrician for over 30 years and is the featured performer in the new ESV commercial which was “shot” recently at a property in East Brighton.

The message of the commercial is: Always use a licensed electrician, ask to see their licence and insist on a certificate of electrical safety.

To “star” in the commercial, ESV had the choice of using an actor, a “celebrity” or a real electrician – and for authenticity and the integrity of the message it was decided to opt for the latter.

The commercial covers dangerous and illegal work involved with lights, power points and general wiring.

It is proposed that the commercial will be shown for the first time as one of the messages forming part of ESV’s next public awareness campaign scheduled to start in the middle of October.

energy safe advertorial – an article supplied by Neca

ECOSMART TRAINING PILOT PROVES A SUCCESS

A pilot of the EcoSmart Electricians training program, run by NECA Victoria to train licensed electricians in energy efficient and environmentally-friendly electrical products, technology and installations, was completed in Sydney and Melbourne during May this year.

As a result of the successful pilot, the program will now officially roll-out in Victoria from August 2007, followed by other states.

“The EcoSmart training pilot was a huge success. The positive response has been overwhelming with feedback from participants showing their expectations were not only met across the board but often exceeded,” says Rod Lovett, member services manager for NECA Victoria.

The training includes four modules: Energy Management; Lighting; Pumps, Fans & Motors; and Solar, Heating and Cooling.

NECA strongly believes the training is a necessary step forward for the industry in meeting the rising demand for energy efficient products and technology in both the consumer and commercial markets.

“The market drivers are there now and customer awareness of energy efficiency is growing. We have been saying for a year that energy costs are going to rise and that is now being forecast. Consumers are seeing not only the environmental benefits but the financial benefits of energy efficient homes,” says Mr Lovett.

“Contractors need to make a conscious decision to get on-board with energy efficiency training. This pilot suggests they do recognise it will benefit them. They see it is better to catch the wave now rather than to watch it roll on by.”

Dean Spicer, director of Recips in Nunawading, Victoria, was one such participant in the training pilot.

“I not only enjoyed it, I found the training was really practical, useful and relevant, particularly given the media attention on issues such as global warming. I learned skills and information that I can actually use and pass on the benefits to my customers."

As for whether his customers are ready and willing to take on energy efficient technology, Mr Spicer says, “The community genuinely does care. Apart from the fact the use of efficient energy can save them money, they are actually concerned about the environment and want to do something about it.”

“I’m very keen to get on-board with EcoSmart Electricians and am excited about it getting up and running as soon as possible,” adds Mr Spicer.

A dedicated EcoSmart Electricians website will enable course participants to enrol and, for those who have successfully completed the four modules, undertake the accreditation process on-line, as well as keep up-to-date on the latest products and technologies.

The program, the first ever-training for licensed electricians in energy efficient and environmentally friendly electrical products, technology and installations, commenced on 15 August in Victoria, with courses being run progressively in other states.

Approximately 1,000 electrical contractors and their staff are expected to be trained in the first year. NECA predicts the scheme will see approximately 4,000 electricians accredited by the end of the 2010-11 financial year.

NECA Victoria won a tender from Sustainability Victoria in November 2006, to develop and run the training.
Another new commercial

EBV has produced another commercial. This one was “shot” in the middle of August, the message being the need for care when using outdoor gas appliances – barbecues, gas lights, heaters etc. It features tents and caravans on a camping site demonstrating what can go wrong when connections between cylinders and appliances are not fully tightened.

There have been two deaths in Victoria this year which investigations reveal resulted from loose fittings on gas cylinders and appliances. One of them was reported in the last issue of energysafe, the other is covered in this edition on page three.

Shots from the new commercial showing the “illegal and dangerous” work.

Handy safety hint. Tell your customers:

Teach children that electrical appliances, cords, switches and outlets are not play things. Safety shuttered outlets as well as plastic covers for ordinary type outlets are available.

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- Electrical Inspections
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Gas Division
- Maintenance of gas mains, services & gas meter installations
- Asset construction and commissioning of gas mains
- Gas leak detection
ESV announced its findings on the Brooke Hanson incident in a media release issued on 28 June.

In the release, Director of Energy Safety, Mr Ken Gardner, said that a number of ESV investigators had spent many hours investigating the incident.

He said that although ESV had not been able to totally replicate the circumstances prevailing at the time the shocks were received, the organisation was of the opinion that one of the temporary electrical leads in use at the spa display did not have a proper earth connection and this could have caused the fault.

"As a result of the fault, some 15 volts AC of electricity would have been injected into the water resulting in a situation entirely consistent with the reports we received of what happened," said Mr Gardner.

Mr Gardner said ESV investigations had shown:
- Brooke Hanson and her sister did receive electric shocks at the spa pool display;
- No fault could be detected in the permanent electrical installation at the Melbourne Exhibition Centre;
- There was no fault with the spa pool which Brooke was demonstrating. The spa in question had been used at a previous show and no electric shocks were reported at that time.

Mr Gardner said ESV wished to acknowledge the help and support of a number of people in its investigations, including: Brooke Hanson, her sister Jade and their family; representatives of Melbourne’s Exhibition Centre; people involved in assembling and removing the display; and the manufacturers of the spa who also arranged for representatives of a component supplier to fly in from overseas to assist with tests.

"Electric shocks suspected or otherwise must be treated seriously and investigated as to their cause. ESV’s investigations have been thorough, and the need to ensure that temporary electric supplies at exhibitions and displays are in proper working order is a lesson that all the people involved should learn," said Mr Gardner.

Brooke Hanson was informed of ESV’s findings.

In a media story issued later, Brooke was informed that electric shocks would be reported immediately to centre management.

She told the media: "I spent the first week after the shock sleeping 18 to 20 hours a day and having massages to help aid my recovery from the muscle spasms and muscular fatigue."

She said she began swimming lightly a week or so after the incident but did not realise the full extent of her injuries suffered from the fall from the spa until then.

"I sustained injuries to my left shoulder and neck, leaving the muscles and joints severely inflamed, requiring regular physiotherapy, massage, acupuncture and daily icing," she said.

"Energy Safe Victoria explained to me that because I was the person in the water that I copped the full brunt of the shock,” she said.

Hanson said she was now focused on regaining her health so she could prepare for the Australian short-course championships in August.

The media report also quoted Warren Anderson, director of Endless Spas, whose spa pool Brook had been demonstrating. He said the company was relieved it had been cleared.

He said Endless Spas would now employ an independent expert to double-check electrical installation by Melbourne Exhibition and Convention Centre contractors.
The Electrical Regulatory Authorities Council – or ERAC – has commissioned a review into the effectiveness of the electrical equipment safety system in Australia and New Zealand to ensure it keeps pace with the changing profile of the equipment industry and with the rapid explosion of technology.

ERAC says that the purpose of the review is to make recommendations on the electrical equipment safety system with the aim of ensuring that the system evolves to continually meet its objective of eliminating the human and financial cost of shock, injury and property damage that can be caused by unsafe electrical equipment used by consumers.

Most electrical equipment is now imported from overseas, particularly Asia, while the emergence of internet retail sources such as eBay is also challenging the effectiveness of the system.

The review will cover the safety regimes applying to general purpose low voltage electrical equipment, used by consumers in domestic situations, and in the wiring of domestic electrical installations.

The objectives of the safety regimes in question are:
1. preventing supply to the Australian and New Zealand public of unsafe electrical products,
2. discouraging unsafe use of electrical products, and
3. removing unsafe electrical products from use.

The changing marketplace profile has the potential to, in time, increase the risk of unsafe product being supplied in Australia in the future and it is important to ensure that risks are allocated to the bodies in the supply chain that are best able to manage them and that the obligations of all bodies in the supply chain are clearly understood and articulated,” it says. Director of Energy Safety, Ken Gardner, told energysafe, that there has been an increase in the supply of unapproved products into the market place. This is of concern to regulators, legitimate manufacturers, the Australian Electrical and Electronic Manufacturers’ Association (AEEMA) and the National Electrical and Communications Association (NECA).

AN ALLIANCE FOR THE BENEFIT OF AUSTRALIA’S ELECTRICAL INDUSTRY

The Australian Electrical and Electronic Manufacturers’ Association (AEEMA) and the National Electrical and Communications Association (NECA) have announced a commitment to work together to address issues of critical importance to the future growth of Australia’s electrical industry.

You can have your say and contribute to the review. See bottom of article.

Why the need for the review?

The introduction in the Options Report for the review says that the electrical equipment safety system serving the public in Australia and New Zealand has been in place for more than 60 years. It has been accompanied by consistently improving safety outcomes as evidenced by the low number of electrical equipment related fatalities and serious injuries, says the report.

“It has to be recognised that the current system was designed to accommodate a marketplace where most electrical equipment was manufactured and/or supplied in Australia by large Australian based companies.

“This profile has changed and today most electrical equipment is manufactured offshore, mostly in Asia, and is often imported and marketed by smaller Australian and New Zealand based suppliers with little technical expertise.”

“The emergence of non-traditional retail sources such as the Internet, particularly through websites such as eBay (relatively uncontrolled and with both local and overseas based sellers), introduces singular challenges in ensuring that all electrical equipment supplied for use in Australia and New Zealand is safe,” it says.

“The Australian Electrical Equipment Approval System has not kept pace with these changes or with the rapid explosion of technology.”

Both associations identified non-complying and potentially dangerous electrical equipment as one of the major issues to be addressed immediately. James Tinslay, chief executive officer of NECA said: “It is clear that this alliance could build quickly on work initiated by NECA in 2005 to remove electrical products that do not meet acceptable safety standards.”

Angus M Robinson, chief executive of AEEMA, indicated that AEEMA is also firmly committed to removing unsafe electrical products.

He said: “Whilst the liberalisation of trade has served to lower the prices of electrical products for the home, without a tightly regulated compliance environment, consumers could be exposed to unnecessary risk from electrocution and house fires.”
ESV demanded immediate action from the importer of a powerboard after information was received from a school in Geelong that some of them were found to have reverse active-neutral polarity. The fault in the Chinese manufactured King Power KP-01 Powerboards was detected during a Testing & Tagging operation.

A further investigation by ESV Enforcement Officer Trevor Hudson revealed that the brown and blue cores coming from the printed circuit board were swapped where they were soldered to the active & neutral bus-bars inside the powerboard.

In a letter to the importer, Director of Energy Safety, Ken Gardner, said: “ESV is very concerned that your powerboards have been found to have reverse polarity, and is concerned about a lack of quality control, both overseas and in Australia.”

“A fault such as transposed polarity could lead to someone receiving a fatal electric shock.”

An electrical equipment Hazard Alert was issued by ESV to other electrical safety regulators in Australia.

The importer was advised that Section 54 of the Electricity Safety Act 1998 (the Act) states (in part):

“A person must not supply or offer to supply electrical equipment unless -
(a) the equipment complies with the minimum standards prescribed for equipment of that class;”

The penalty for non-compliance is up to $4,405 for a natural person and in the case of a body corporate up to $22,024.

ESV also expressed concern that the powerboards did not display an Approval Marking or Cat/Model Number. It is understood they were Approved under V02330, with Cat/Model No. KP-01.

The importer was advised that, under Section 57(2) of the Electricity Safety Act 1998 (the Act) -

“A person must not supply or offer to supply electrical equipment prescribed under sub-section (1) unless the equipment –
(a) is approved by ESV and is marked as prescribed; or
(b) is approved by a prescribed authority or, under the regulations, is deemed to be approved; or
(c) is certified in accordance with a prescribed method or prescribed process.”

Outlet Devices (including powerboards) have been a prescribed class of electrical equipment for many years with the most recent prescription being on 7 August 2003 by notice published in the Victorian Government Gazette No. G31, on 31 July 2003.

“Furthermore, under the provisions of Sections 63 and 65 of the Act, respectively, ESV may prohibit the supply or require the recall of electrical equipment that is, or is likely to become, by reason of its design or construction, unsafe to use. Similar legislative requirements apply in all States and Territories of Australia.”

The importer was instructed to supply to ESV within 10 business days a written statement advising:

- full contact details of the powerboard supplier and proof of purchase if available;
- detailed list of all wholesale & retail outlets to which the powerboards have been supplied;
- total number sold in Australia and total numbers still in stock;
- number of similar reports of incorrect polarity for the powerboard;
- why reverse polarity was not detected by the manufacturer’s quality control procedures;
- why reverse polarity was not detected by the importer’s quality control procedures;
- why the powerboards were being sold without Approval Marking & Cat/Model Number;
- what overseas & local procedures the importer intends to implement to ensure future compliance;
- proposed actions to stop sales in Australia and have all powerboards checked for correct polarity and to be fitted with a nameplate label showing the required markings; and
- that the importer understands the requirements of Sections 54, 57(2), 63 & 65 of the Act.

The importer was also required to report the results of the polarity checking to ESV by the end of July 2007. It is suggested that checked stock be withheld from sale until further notice from ESV.

A full list of Prescribed Electrical Equipment is available at the ESV website http://www.esv.vic.gov.au

**STOP PRESS:**

The powerboards have been withdrawn from sale. The batch with the reverse polarity was also found to be non-compliant from the creepage & clearance distances perspective. In addition the nameplate label was not durable.

Recall notices have been placed in stores where the product has been sold. The importers have told ESV that 500 of the faulty powerboards have been sold, mostly in Victoria.
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- Volt Drop Calculator
- Fault Level Calculator
- Circuit Breaker Selection
- Time Current Curves
- Power Factor Correction
- Extensive Reporting
- Internet Support

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The Electrical Trades Union has just completed 12 months of an innovative program to create much-needed opportunities for young indigenous apprentices in the electrical, plumbing and construction trades.

Funded by the Department of Victorian Communities (as part of the Workplace Participation Partnerships), the Indigenous Apprenticeship Project provides support, training and mentoring, and aims to get young Indigenous kids the all-important first foot in the door of their careers.

The project’s star recruit? Ex-Essendon footballer and luminary Dean Rioli, who is the mentor and support person for the young indigenous people throughout their apprenticeship. energysafe spoke to Dean and Project Coordinator Christian Gaylard.

energysafe (ES): Why is a project of this kind needed in Victoria?

Dean Rioli: There’s a general shortage of apprentices out there, and there aren’t many indigenous apprentices – none in electrical. There’s only a couple of plumbing apprentices, that’s all. We need to get young indigenous kids a foot in the door with major contractors – to get them apprenticeships and to train them up so they can go back to their communities with a trade.

We definitely need the kids out there in their own communities, wherever they come from. Then they can encourage other kids to come on board – to show other kids it’s not hard to get started. You could say that we’re taking the trades out to the communities, to rural and regional areas.

Christian Gaylard: We spoke to some of the biggest multinationals who employ 300+ workers and didn’t even know an indigenous person. So there’s certainly a shortage of indigenous electricians.

ES: Why are there so few indigenous apprentices?

Dean: Everyone knows that indigenous kids are under-represented in the trades and have the highest unemployment rates of any group of people in Australia. It’s no secret that indigenous kids have to deal with a host of prejudices and are stereotyped. There are also cultural differences, such as the close relationship with family, which impact on indigenous kids in ways that are quite different from the situation of other kids.

Young indigenous people just don’t know enough about working in a trade to even see it as an option. We have to get out there and show them what electricians do – to show them what it means to do any job onsite in industry. We’ve got to get the information out there to them, and then make sure they can get a job.

Christian: These kids are no different to any other kid. The only thing is that they don’t know what the industry entails. That’s their only disadvantage. Companies get kids that are on par with any non-indigenous person; employers are still getting the best kids for the job.

ES: How does the Indigenous Apprenticeship Project work?

Christian: What we’re trying to do is teach them about the benefits of having a trade and how this will help them in life: that they will have a licence at the end which will enable them to work anywhere in the world. They could, for example, start their own business, in their own community, which is a priority for Indigenous people and their communities.

We give them life skills as well – any way that helps them get through their apprenticeship is what we’re here for. Indigenous kids face cultural issues that other kids don’t experience. If we don’t feel comfortable addressing the issue we point them in the right direction. That might mean seeking the assistance of people from indigenous leaders.
Dean: A lot of indigenous apprentices come from small communities outside the metropolitan area. They’re used to being in a small community where everyone knows each other. They are very family oriented. So it’s a matter of making sure young indigenous kids are comfortable in the big city environment.

ES: Dean, how do you support the young apprentices?

Dean: My job is to mentor the kids and also get them tuition or any kind of help or support they might need during their apprenticeship. Continuous contact with every kid is important. We go out and visit them fortnightly and I ring them every week. I also check with the employers and the school to see how they’re going. I am a mentor and I become a mate to them – someone they can talk to about anything that might come up. I’m here for the kids.

Christian: We recruited Dean not only because of his longstanding interest in indigenous affairs but also his profile in football. Kids look up to him and they really realise how hard he must have worked in his own apprenticeship of football. He’s a great role model and mentor. He’s done the hard work and he is now in a position to help others. This is exactly what we want these kids to do when they have completed their own apprenticeship.

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After all, the idea started out in football. We were getting kids from all over Australia wanting to come to Melbourne and play football at the elite level. Not all of them could make it or have football as their only source of income. We realised that getting a job, in particular a trade, was what they needed. It all started there.

ES: You’ve just finished your first 12 months in the Project. What’s your assessment so far?

Christian: Employers have been very responsive; many have done cultural awareness training and been very willing. There have been a great bunch of employers involved in the first intake of 15 kids – including Elecraft, Watters, Heyday Group, Apps Electrical, VicTec, Nilsen’s and Corke Instruments – and nearly all have signed on to take on more. We’re looking forward to getting on to bigger and better things.

Dean: All signs are good. The first apprentices are all enjoying what they’re doing. We are funded to look after these kids for a short time, but Christian and I have become such good mates with the kids that we have made an obligation to see these kids through their whole apprenticeship. The outcomes have been excellent so we’ll keep going with the State Government, employers and unions to place as many indigenous kids into skilled areas as we can.

If you would like information about employing an Indigenous Apprentice, contact Christian Gaylard at the ETU on 0438 327 716 or email christian@etu.asn.au.

“Statistics show that indigenous Australians have less access to quality jobs than any other group in the community. We are proud to have initiated the Indigenous Apprenticeship Project, which provides support, mentoring, training and job opportunities for indigenous youth in a way we’ve never seen before. “

Dean Mighell, ETU Branch Secretary
Have you visited ESV’s new website at www.esv.vic.gov.au yet?

After a number of months of development, including extensive consultation with stakeholders, the new site was commissioned in early July.

The process involved developing a needs analysis to determine what is required of the site and what it should contain. The design features were then put in place before the actual build took place.

The ESV website remains a “work in progress”. Updates, refinements and improvements will be made progressively to ensure the site is the best place to go for anyone needing advice on electricity and gas safety – and in time, pipeline safety.

ESV welcomes your comments on the site – what can be improved and any material which should be there which has been inadvertently left out during the transfer from the old site to the new.
Teams of Victorian electricity workers travelled north to help restore power after the recent major storms and floodwaters devastated the electricity network in the Hunter Valley and the New South Wales central coast.

The Queen’s Birthday storms were the worst NSW had seen for 30 years, leaving widespread, unprecedented damage. The wild weather claimed the lives of nine people including a family of five who were swept away in their car when the road they were travelling on collapsed. Around 1,000 people were isolated in the floods, relying on helicopter drops for supplies.

Large-scale damage to the electricity network left over 200,000 people without power. More than 45 Victorian electricity workers from Powercor, SP-AusNet and Alinta – lineworkers, tree crews and installation inspectors – joined the electrical emergency response in NSW. The crews came from such centres as Gippsland, Wodonga, Shepparton, Warrnambool, Benalla and Bairnsdale.

The Victorian teams undertook intense construction works including rebuilding powerlines, poles, the safe removal of trees from powerlines and further inspection and repair works to key infrastructure. They then moved to “rats and mice type” work, repairing wiring and restoring power to thousands of individual homes and businesses.

Victoria has seen its fair share of wild weather, so their crews were well-equipped to respond to the NSW crisis situation.

“The level of emergency response support is no different from what happens with interstate fire agencies during a major bushfire,” said Paul Adams, General Manager of SP AusNet.

“We see our role as emergency responders, and the providers of an essential service.”

“We know what a crisis is like,” said Powercor spokesperson Damien Batey. “We have had people join us in Victoria from interstate, and we wanted to offer the same sort of help in return.”

Many NSW residents and business-owners had been without power for a day or more, and were very grateful for the Victorians’ efforts to restore connections and infrastructure. One happy customer kept driving along the road to make sure he thanked all the volunteers.

“Homeowners were amazed that the crew – who worked 16-hour days to get the power back on – had come all the way from Victoria,” said Graeme Murn, Alinta Asset Management South Electricity Operations Manager.

“Our Warrambool and Broadmeadows lineworkers are geared to respond to emergencies, often travelling for reactive work as well as external contract work, but not usually this far from home,” said Graeme.

Minister for Energy and Resources Peter Batchelor thanked the Victorian crews for their work in extremely difficult conditions.

“The efforts of these Victorian electricity workers have made a significant contribution to the storm recovery and I know are much appreciated by the New South Wales community,” said the minister.

“I want to thank these electricity workers for their professionalism and outstanding efforts.”

Minister for Energy and Resources Peter Batchelor thanked the Victorian crews for their work in extremely difficult conditions.

The SP AusNet crew who assisted with restoring power supplies after the NSW floods: L to R: Vin Webb, Myrtleford; Jeff Dryden, Wodonga; Jaden Ronald, Wodonga; Tim McDonnell, Myrtleford; Leif Kamba, Wodonga; Darren Campbell, Wodonga; and Mark Petersen, Myrtleford.

Some of the damage

**NSW STORMS LEAVE A TRAIL OF DAMAGE**

- Severe storms and floods hit the Hunter Valley and the central cost of NSW, leaving a path of destruction all the way to northern Sydney.

- Nine people were killed, including a family of five.

- An average of 140mm of rain was dumped on the Hunter River Valley in 24 hours, with some areas receiving 200mm.

- Over 200,000 people were left without power.

- The financial cost of the wild weather across coastal New South Wales exceeded $200 million.
Handy safety hint. Tell your customers:

Frayed or damaged cords are dangerous and should be replaced immediately. Many old plugs do not have safety barriers between the connections – replace them with modern plugs.

**DOWNLIGHTS – PROPOSED NEW EXPLICIT INSTRUCTIONS IN THE WIRING RULES WILL REDUCE FIRE THREAT**

The issue of downlights, and the fires they cause through overheating and contact with insulation and flammable material in roofs, hit the media again recently. While they might provide a pleasant ambience in rooms, downlights have been a concern to fire authorities and the electricity industry for years.

While Victoria’s fire authorities are reporting an increased incidence of fires caused by downlights so far this year, these lighting products and the problems they cause are not confined to this State.

It is therefore encouraging from ESV’s perspective – and every organisation and individual concerned about them - that a national response is being prepared to meet the problem head on through the next version of the Wiring Rules AS/NZS 3000 which will hopefully be released later this year or early in 2008.

While the current Wiring Rules contain only relatively brief references to the standards which should apply to lamps positioned near flammable and thermal insulating material, the proposed AS/NZS 3000 covers the issue much more explicitly – and includes a diagram and a table showing the default minimum clearances for recessed luminaires or downlights.

Although the new Rules are still in draft form, and the round of consultations is continuing between all the interested parties, it is unlikely there will be a fundamental change to the proposals relating to downlights. Therefore I think it is a good idea to present some of the information, including the diagram, in this column.

While the new Rules might not alleviate some of the problems arising from downlights installed in existing properties, the standards will, once they are in place, apply to all new buildings, retrofits and new installations of recessed lamps. Therefore in time incidents of downlight fires should decrease – and everyone will be pleased about that.

If they don’t already do so, it would be a good idea if registered electrical contractors and licensed electricians started working to the new standards right away – and remain vigilant and provide appropriate advice if they observe wrongly installed and dangerous downlights when called for whatever reason to customers’ premises.

(See opposite page.)

**An idea of the sort of damage caused by a fire resulting from an overheating downlight.**

**A demonstration of what can go wrong.**
PROPOSED NEW STANDARD COVERING DOWNLIGHTS

The new standard - 4.5.2.3 Recessed luminaires – says:

*(Recessed luminaires and their auxiliary equipment shall be installed in a manner designed to minimise temperature rise and prevent the risk of fire.*

The temperature rise at the rear of a recessed luminaire shall be limited to prevent damage to adjacent materials. This requirement shall be satisfied by one of the following methods:

- **(a)** The use of a luminaire specifically designed and certified by the manufacturer to permit—
  - (i) contact with combustible materials; or
  - (ii) enclosure or covering by thermal insulation material, as appropriate to the location of the luminaire.

- **(b)** Installation of the luminaire within a suitable fire resistant enclosure.

- **(c)** Provision of required clearances from combustible and thermal insulation material as specified by the manufacturer of the luminaire.

- **(d)** Provision of the default clearances from combustible and thermal insulation material as specified in Figure 4.7. Where manufacturer’s installation instructions that specify required clearances are not available, the luminaire shall be installed in accordance with (b) or (d).

The diagram and table from the draft Wiring Rules:

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- **(d)** Provision of the default clearances from combustible and thermal insulation material as specified in Figure 4.7. Where manufacturer’s installation instructions that specify required clearances are not available, the luminaire shall be installed in accordance with (b) or (d).

**Figure 4.7 Default minimum clearance for recessed luminaires**

**Likely Cause of Downlight Fires – MFB Statistics**

This table contains data representing the likely cause of each of the downlight incidents attended by the MFB for the period January 2002 – June 2007.

<table>
<thead>
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<th>Incident Type</th>
<th># of Incidents</th>
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<td>Overheated Transformer</td>
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<td>13.3%</td>
<td></td>
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<tr>
<td>Mechanical Failure</td>
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<td>25.9%</td>
<td></td>
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<tr>
<td>Short-Circuit</td>
<td>27</td>
<td>20.0%</td>
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<tr>
<td>Defective Wiring</td>
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<td>3.0%</td>
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</tr>
<tr>
<td>Installation Deficiencies</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect Installation</td>
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<td>3.0%</td>
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<tr>
<td>Insulation in contact with component</td>
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<tr>
<td>Other</td>
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<td></td>
<td></td>
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<tr>
<td>Combustible left too close</td>
<td>5</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>Overload to component</td>
<td>1</td>
<td>0.7%</td>
<td></td>
</tr>
<tr>
<td>Human Error</td>
<td>1</td>
<td>0.7%</td>
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</tr>
</tbody>
</table>

At the time energy safe went to press, according to the MFB there have been some 57 house fires caused by downlights in the last 18 months – 36 in 2006 and 21 so far this year. In 2005 there were 32 such fires.
Bernie Olanda is a proud man. With an electrical career spanning 35 years in the field, and with his own business, MPE Electrical Contracting, celebrating its twentieth year this year, why wouldn’t he be.

But Bernie has four other important reasons to be proud: their names are Christian, Luke, Peter and Simon. They’re Bernie’s sons, and three of them have become electricians.

Luke, now 26, started out studying electrical engineering. Twelve months later he decided to follow his father’s footsteps into the electrical trade. After being awarded RMIT Apprentice of the Year on graduation, Luke is now a qualified A-Grade electrician, and is still working with Bernie at MPE.

Peter, Bernie’s second son, now 22, initially chose architectural engineering but the pull of his father’s and brother’s trade was too strong. “He saw the potential and growth in the industry,” says Bernie. After twelve months, Peter joined Luke and his father in the trade and is now a third-year electrical apprentice with Downer Engineering.

Simon, Bernie’s youngest son, now 21, wasn’t sure which direction to go in when he left school. The solution was obvious: “Come and work with me”, Bernie suggested, “... just until you make up your mind.” Simon made up his mind and is now a fourth-year apprentice with his father, and has never looked back.

And what about Bernie’s fourth son, Christian? Has he been banished from family BBQs because he hasn’t followed the electrical path? Not at all. He worked for a while in his father’s business but decided to follow his mother’s footsteps and became a teacher, and is now in business finance.

Bernie and his wife are certainly inspiring parents. What’s their secret?

“We didn’t force them into this industry but gave them guidance and assistance,” says Bernie. “They used to help out in the MPE office and on sites during the holidays and their days off, so they grew up understanding the scope of the industry. I really enjoy what I do, and they saw for themselves that it was a great career to be in.”

MPE Electrical carries out a range of electrical work – building services maintenance, commercial, office fitouts, exit and emergency maintenance, data, domestic as well as an unusual speciality in upgrading food processing equipment to Australian Standards – so Bernie’s sons saw a wide range of skills at play.

“Every time there was a new job it was a new adventure for them. When you’re young, you love the variety: you meet different people, and you learn new skills everyday. Most of all, they appreciated the challenge of it.”

Having your own sons as apprentices certainly has its own challenges. “It put a few pressures on the family, that’s for sure,” says Bernie. “When I took them on ... let’s just say, the younger generation have a way of letting you know that you don’t seem to know very much,” he laughs.

Adhering to a few basic principles helped Bernie manage being a father and an employer at the same time. “I’ve been training apprentices since 1987. I try to treat my boys as apprentices first, sons second, when they’re on the job. Also, I never give them tasks to do that I wouldn’t do myself. If they say it’s impossible, I would show them how.”

“Where possible, I placed my sons alongside one of the other experienced tradespeople in the MPE team. We try not to spend too much time together; it’s not fair on either of us to spend all day together. That’s a recipe for disaster.”

“A lot of good comes out of a bit of competition. It’s good for everybody because it lifts the standards of everyone in the family.”

Dinner back at home at the Olanda residence is a very lively affair, with plenty of electrical talk and friendly competition. “There’s always ribbing going on,” says Bernie, “particularly when you have an Apprentice of the Year sitting at the dinner table.”

“It’s very entertaining. The boys have always got a story to tell about the day, what technical choices they made and why. It’s very lively and it gets a bit loud but it’s always interesting. It’s good rivalry. There’s no malice in it. A lot of good comes out of a bit of competition. It’s good for everybody because it lifts the standards of everyone in the family.”

Many of the dinner discussions are about electrical safety. Bernie has noticed that there’s a much greater emphasis on safety standards in his sons’ training, compared to his own, and he is pleased to see them bringing their learning into the workplace and out into the field.

“There’s a much higher standard of safety now. That’s a great thing. We used to do some ‘live’ work years ago, which amazes my sons. Now we are taking a lot more action to make sure that safety is the number one priority in our work. It’s helped me to understand and be much more aware of safety.”

After 35 years Bernie still clearly loves his job, and has transferred his enthusiasm to his sons. “There’s not one morning that any of us wakes up and dreads going to work. Everyone enjoys our work. It’s helped me to understand and be more much aware of safety.”

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.
ESV has received some quality feedback on the standards of its services and interaction with stakeholders thanks to its customer satisfaction survey. The interviews were conducted in May and June, with the survey report running to more than 100 pages delivered in July.

Quantum Market Research conducted three separate surveys on behalf of ESV, each focusing on a different stakeholder group. Those interviewed in the surveys were 400 electrical stakeholders, 300 gas stakeholders and 15 “special” stakeholders.

Electricity

The results of the survey of electrical stakeholders showed little change compared to the surveys conducted for the Office of the Chief Electrical Inspector in 2003 and 2004.

The areas in which ESV is performing best in the eyes of respondents include payment processes, knowledgeable staff, friendly and approachable staff, high quality service and the many ways to contact ESV.

Two areas of importance on which ESV needs to improve are keeping customers informed of changes that affect them and keeping customers informed of changes which occur in the industry.

Encouragingly, most respondents noticed either no change or an improvement in the service year-on-year. Overall, 27% noticed an improvement, whilst only 7% perceived a deterioration in service.

The main reasons for noting improvements in service centred on better communication, faster service and service and knowledge improvements.

The main reasons for noting declines in service (amongst the small proportion noticing a decline) centred on slow service and reduced communication.

The survey also revealed that the preferred method of payment to ESV is changing. What was previously the domain of payment by mail (57% in 2007, down from 52% in 2004) is now becoming more weighted towards the internet (SS% in 2007, up from 22% in 2004). This growth in payment by internet is reflected across sub-groups.

Some respondents felt ESV could do more to advertise safety issues and increase awareness of the importance of using licensed electricians.

Gas

The areas in which ESV is performing best according to gas stakeholders include knowledgeable staff, high quality service, friendly and approachable staff and easy to understand information.

Areas of importance on which ESV can improve are communicating with the general public about the importance of gas safety, keeping customers informed of changes which occur in the industry, keeping customers informed of changes that affect them and giving sufficient time and attention to customer needs.

An overall satisfaction rate with ESV of 95% was measured amongst gas stakeholders.

“Special” Stakeholders

Some 87% of special stakeholders registered satisfaction with the service they have received from ESV.

Issue resolution is of importance to all parties and 87% of special stakeholders had at least one issue with ESV which needed resolving in the past 12 months. The vast majority - 85% of them - were happy with the outcome.

Looking forward, 27% of respondents in this category believed that ESV would be well served to focus some of its efforts in the areas of “consultation with industry” and “educating the community”.

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* EX e la IIC T3
* “Intrinsic” safety mode; reduction to a minimum of the risk of an electrical arc or overheating of the battery case.
* “Augmented” safety mode: reduction to a minimum of the risk of overheating of the lighting unit in the event of it receiving a blow.
* Double light source: one with standard bulb for powerful lighting, the other with a 5 LED lighting for energy-efficient close-up lighting.
* Standard light source with adjustable focus to adjust the width of the beam of light.
* Beam adjustment control and on/off switch are situated on opposite sides of the lighting unit, for easier manipulation.
* On/off switch can be locked to avoid accidental switching on.
* Lighting unit can be directed as required.
* Stainless steel contacts.
* Supplied with: standard spare bulb, replaceable rechargeable batteries and charger

**MYO 3**

The MYO 3 features a main headlamp with a powerful Xenon halogen globe and 3 LEDs housed in a separate reflector for proximity lighting.

**Tikka Plus**

The Tikka Plus has four LEDs and features three levels of lighting options, a flashing mode and a hinged lamp unit that can be tilted.

**Tikkina**

The Tikka is a compact two LED light - lasts up to 120 hours on 3 x AAA batteries! Weighs 78 gms with batteries!

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**FIRSt ENFORCEABLE UNdERTAKING UNDER OHS ACT 2004**

A plumbing company recently presented a health and safety lecture to 36 apprentice plumbers at Holmesglen TAFE - the first case of its type under Victoria's workplace safety laws. The Watsonia company agreed to provide the lecture as an Enforceable Undertaking, an alternative to prosecution.

Enforceable Undertakings are legally binding agreements between WorkSafe and a duty holder made possible under the Occupational Health and Safety Act 2004. A charge against the company of failing to supervise its employees was withdrawn and the lecture was provided a few days later.

**The presentation covered:**
- the circumstances that led to the charge;
- the positive duty of employers of apprentices to ensure they are adequately supervised;
- system upgrades undertaken by the company since the incident; and the benefits to the company gained from those upgrades.

The company has also agreed to be audited by WorkSafe between three and six times over the next six months.

A media release issued by WorkSafe said that in 2006, the safety regulator received information about two apprentices working in a deep trench without shoring. The trench was situated behind a house in Vermont.

A WorkSafe inspector found two unsupervised apprentices at the premises, one of whom was in a 2.7 metre deep trench without any shoring, shields or stepped/battered edges to prevent it from collapsing. Both were employed by the plumbing company, said the media statement.

**ELECTRICITY RELATED PROSECUTIONS**

ESV has recently taken legal proceedings under the Electricity Safety Act 1998 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 out electrical contracting work unregistered and failing to ensure precautions are taken to prevent electric shock. No conviction was recorded and the matter was adjourned with the defendant undertaking to be of good behaviour for 12 months. The defendant also agreed to provide a gift of $1000 to the Royal Children’s Hospital. The defendant was also ordered to pay costs of $2000.
- An REC was charged with giving false information to ESV. The defendant agreed to give an undertaking to be of good behaviour for one year and pay $750 to the court fund. The defendant was also ordered to pay costs of $1600.
- An unlicensed person was charged with carrying out electrical installation work unlicensed. The defendant agreed to give an undertaking to be of good behaviour for 12 months and pay $350 to the court fund. The defendant was also ordered to pay costs of $1200.
- A licensed electrical worker was charged with two counts of carrying out electrical contracting unregistered, two counts of failing to supply a certificate of electrical safety, and one count of failing to inspect a job. The defendant was fined $1800 without conviction and ordered to pay a further $1200 costs.

**INFRINGEMENT NOTICE SUMMARY**

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<td>Unlicensed electrical installation work</td>
<td>$537</td>
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</table>

**Handy safety hint.**

Tell your customers: Never connect a piggyback plug or ordinary plug to the appliance end of an extension lead as the pins will be live. Fatal accidents have been caused by this arrangement.
A man contacted a high voltage underground cable while “jack hammering” in a trench in front of his property in Brunswick recently and was uninjured – apart from flash burns to his nose and an eyebrow.

A number of neighbouring properties lost power after the incident.

The victim told an ESV enforcement officer he had been using the small electric jack hammer to loosen rock in the trench. He had been working alone and had not contacted “Dial Before You Dig” ahead of starting work.

There was a large flash after contact was made with the cable, he said.

Electric jack hammers have also become an issue after reported incidents of them contacting gas pipes, and in some instances igniting the escaping gas.

In 2005 Protect commissioned the development of purpose built software to provide leading edge administration to the Fund.

Development of the software was done in consultation with a range of Employer Members to ensure the commissioned product met the varied requirements of participating employers.

A key goal of the software was to provide a mechanism by which participating employers could provide monthly contributions for severance and income protection electronically – on-line and in real-time.

The software was “turned on” at the commencement of July 2006 and in the first full year of operation has delivered a remarkable improvement in administration outcomes.

As is expected of modern business practice, the software enables all Employer Members to access their membership electronically.

This allows all Employer Members to conduct their Protect business on-line.

Monthly contribution paperwork and payment can be completed and lodged on-line, a GST receipt can be accessed and downloaded on-line, a Certificate of Currency similarly so – all matters important to Employer Members.

With these new administration arrangements now solidly in place for twelve months, it is time to survey Employer Members.

Rosy Buchanan & Associates (Corporate Research & Public Relations) has been appointed to conduct an independent and confidential research project to establish Employer Member experiences with, and opinions about, the software.

The six month research project will seek to gain insight from the perspective of Employer Members about the role leading edge software can play in providing modern business administration.

This will assist Protect in the mission to ensure Employer Members are provided with the best range of administration tools in order to meet their industrial and commercial obligations to the Fund.

If you need financial advice, Protect recommends you see an appropriately qualified adviser.
**WHAT IS APPRENTICE PROFILING?**

Profiling is a way of finding out what work an electrical apprentice is doing and the progress he or she is making in the trade over the period of the apprenticeship. It enables TAFE colleges/skills centres to provide real training that meets the needs of individual apprentices and provides ESV with confidence that all future electricians will have a set of usable skills and are able to work safely in the industry.

This type of information is also mandatory for TAFE colleges/skills centres to meet their registration regulations as providers of training to apprentice electricians and for them to be able to award the qualification.

Victoria is the first state in Australia to introduce apprentice profiling and the rest of the country is now catching up.

Each week an apprentice enters information about the work that they have done during the week using an electronic web based data card. Although the onus for accuracy of the information provided clearly resides with the apprentice, there is a capacity for their employer to verify the information.

The information is submitted via [http://www.epicitb.com/profiling/profiling.html](http://www.epicitb.com/profiling/profiling.html) using a password and username and can be viewed and verified by the employer. Over the apprenticeship, a profile of the apprentice’s work is built up that is matched against the requirements of the national electrician’s apprentice qualification.

Every fortnight a report, which shows how the apprentice is progressing with work experience, is produced and provided to the apprentice and to his/her employer by the TAFE college/skills centre. The report maps the progress of the apprentice against the requirements of the qualification.

To ensure that electricians are as safe as possible on entering the trade, ESV has incorporated profiling as an essential part of the requirements for electrical apprentices to gain an electrician’s licence. To be eligible to sit for the final licence assessment all electrical apprentices now have to have their TAFE college/skills centre confirm that they have a satisfactorily completed profile.

For further information go to [http://www.epicitb.com/profiling](http://www.epicitb.com/profiling) or contact EPIC ITB on: 9654 1299 or email: profiling@epicitb.com

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**PROFILING: VALUABLE FOR THE APPRENTICE AND THE EMPLOYER**

Electrical apprentice with Frontline Human Resources, Steven Fadljevic, has been dubbed Victoria’s profiling “superstar”. By consistently keeping up-to-date with profiling throughout his apprenticeship he won a brand new laptop, donated by the ETU.

Steven attends his off the job training at Box Hill TAFE.

Steven and his employer, Rick Winkworth from Frontline, spoke with EPIC Industry Training Board about the “secrets” of his profiling success. The interview has been provided to [energysafe](http://www.epicitb.com/profiling/profiling.html).

**Steven, how did you incorporate profiling into your working week?**

Steven: Yes. I am happy to use the profiling system as it is very easy to do and it is user friendly.

Rick: I find it very quick and easy to use, and have never had any problems with it.

**Rick, how did you support Steven with his profiling?**

I regularly check up on Steven’s profiling, and compare his skills and experience against industry standards, as well as verify the information he is submitting. I also make sure that Steven fills out everything properly and does his profiling weekly.

**Steven, does discussing your profiling records and quarterly reports with Rick assist you with your apprenticeship?**

Yes, it has definitely improved communication and Rick is able to give me advice on how I’m tracking and suggest any areas for improvement.

**Do you find the reports informative and easy to understand?**

Steven: Yes I find them very informative as they give me an idea of how I’m progressing. The graphs make it easy to understand the information too.

**Rick, what advice would you give to other employers about profiling and verification?**

Make sure that the apprentice’s regularly do their profiling and that you regularly keep track of the information they are submitting so you know whether or not they are receiving adequate work experience and training.
LICENSING ADVICE FOR APPRENTICE ELECTRICIANS AND THEIR EMPLOYERS

Feedback received by ESV from throughout the electricity industry indicates that apprentice electricians and their employers from time to time do not understand licensing requirements and the importance of making a timely application for a licence.

The following advice prepared by ESV has also been placed on the ESV website.

Licensed Electrician’s Assessment (LEA)
All apprentice electricians nearing the end of the 3rd year, or early in the 4th year of their apprenticeship, are currently required to undertake the LEA to complete their apprenticeship and to obtain their qualification.

In order to undertake the LEA, it is essential that satisfactory progression and/or completion in the key elements of the apprentice’s profiling is clearly demonstrated to the registered training organisation (RTO), such as TAFE Institute or college or a group training company, in conjunction with the employer.

The LEA consists of 3 components:
1. SWP (Safe Working Practices for Electricians)
2. LET (Licensed Electrician’s Theory)
3. LEP (Licensed Electrician’s Practice)

Further, additional training is currently available at most RTOs in order to provide assistance to complete the LEA if necessary.

Licensing requirements
Apprentice electricians generally complete their apprenticeship contract of training in 4 years.

While there are some apprentices, for various reasons, fail to complete their schooling in order to obtain their qualifications – namely; Certificate III Electrotechnology – Systems Electrician, most apprentices complete their schooling and obtain the Certificate III within the required timeframes.

As such, an apprentice electrician who has successfully completed the LEA, obtained the Certificate III and completed the other requirements in order to apply for an Electrician’s Licence, should make that application as soon as practicable after completion of the contract of training.

Where an apprentice electrician has not completed their schooling and/or the LEA, he/she should obtain a Supervised Worker’s Licence as soon as practicable after completion of the contract of training. To obtain this licence, it is essential that the applicant must demonstrate completion of the SWP component of the LEA.

Extension of time
During the apprenticeship, apprentice electricians are deemed to be licensed while they are being trained in accordance with the Vocational Education and Training Act 1990.

The Electricity Safety Act and relevant Orders in Council allow an apprentice electrician to work for 3 months after completion of the contract of training and still deemed to be licensed.

Employer responsibilities
Registered Electrical Contractors and employers of electricians are required to only employ electrical workers who are licensed or apprentices who are deemed to be licensed.

As such, employers should work with the apprentice electrician to ensure that the licensing arrangements are completed as soon as practicable after completion of the contract of training.

Employers who continue to employ apprentice electricians after the three month extension, without a person having an Electrician’s Licence or a Supervised Worker’s Licence, are, in effect, employing an unlicensed person. Further, that person is, in the eyes of ESV and the electrical industry, an unlicensed person.

Penalties, which would be quite severe, may apply to employers and/or persons if this situation is allowed to occur.

Handy safety hint.
All gas cooking appliances should be checked at least every two years by a licensed gasfitter to ensure that they are safe and efficient.
Each year sudden cardiac arrest (SCA) strikes approximately 30,000 people in Australia alone. Many of these people have no warning, since they show no prior symptoms. And, sadly, fewer than 5% survive, often because ambulance services cannot reach them in time.

When sudden cardiac arrest strikes, the electrical system of the heart short-circuits, most often causing an abnormal rhythm known as ventricular fibrillation. Lacking proper blood flow, the person loses consciousness, stops breathing, and will die unless promptly treated. CPR (cardiopulmonary resuscitation) can help a person in cardiac arrest, but it alone cannot save lives. A “shock” from a defibrillator — defibrillation therapy — is needed to restore the heart’s normal pumping rhythm. A victim’s best chance of surviving SCA is to receive that shock within five minutes of collapse.

Further more, the ARC (Australian Resuscitation Council) now recommends, as part of its latest guidelines, the early use of a defibrillator if available. Defibrillators, nowadays, are generally easy for a bystander or work colleague to use, and are virtually maintenance-free.

Due to the nature of the industry, electricians are at a higher risk of a cardiac arrest due to electrocution. There are many instances of electricians suffering a shock and being put into a fatal cardiac arrest, sometimes days later. To make matters worse, ambulances are often held up due to delays in getting to hard to access areas like building sites or often due to traffic congestion. Early access to an defibrillators may have saved their life.

Several Melbourne electricians have heeded this important safety message and have recently purchased defibrillators. Peter Riley from HVP Pty Ltd and Rob Sevior from RANS Electrics have equipped their staff with the rugged and simple to use defibrillators. Rob commented, “Given the risks we face in our work, defibrillation logically complemented our annual first aid training. It adds an extra layer to on-site treatment, if needed.”

Their employees have undergone First Aid training with Peter Cuddon from National Education P/L which includes the straightforward instruction of how to use a defibrillator in an emergency.

Peter explains: “Over the years as a paramedic and electrician, I saw how electricians need something that is dust and water proof when working on building sites. I would therefore recommend one that is made to military standards with a high IP (IP54) rating and one that is easy to use. The machine should ideally also coach the operator if needed. It also makes sense to have one, where there’s no risk to anyone operating the defibrillator on wet or metal surfaces when following the right procedure.”

RELATIONSHIP BETWEEN SUDDEN CARDIAC ARREST SURVIVAL RATE AND TIME TO DEFI BRILLATION.

FOR EVERY MINUTE DEFI BRILLATION IS DELAYED THE CHANCE OF SURVIVAL DECREASES BY ABOUT 10%.

AHA 2000 GUIDELINES.

DEFIBRILLATORS ARE ALREADY SAVING LIVES

A STUDY OF INCIDENTS AT THE MCG AND SHRINE OF REMEMBRANCE SHOWED THAT “OUT OF 28 VICTIMS OF SUDDEN CARDIAC ARREST 86% LEFT THE VENUE ALIVE”, HAVING BEEN TREATED AT THE SCENE WITH A HEARTSTART DEFI BRILLATOR. COMPARE THIS TO THE AVERAGE SURVIVAL RATE IN AUSTRALIA OF AROUND 3%.2

CAN YOU RISK NOT HAVING ONE?

1. Estimate as provided by the Australian Resuscitation Council.
3. AHA 2000 Guidelines

References MCG study
Percentages refer to proportion of patients alive at discharge from hospital.
It is an important part of ESV’s role to constantly be on the lookout for unapproved and unsafe electrical equipment being offered for sale.

Part of the process involves continued market surveillance to ensure current stock products offered for sale in stores are “as approved” and comply with the requirements of the standard - in other words, safe.

To achieve this, ESV purchases a range of products for testing by independent laboratories accredited by the National Association of Testing Authorities (NATA).

Check testing is targeted at products which have been identified as potentially non compliant by an analysis of investigations undertaken by ESV and interstate regulators.

This years check testing has targeted:
- Rewirable plug tops to be subjected to the pin bending test to confirm compliance with the requirements of AS/NZS3112.
- Portable heaters will be tested for compliance with selected requirements of AS/NZS60335-2-30 including flammability, normal and abnormal temperature tests.
- Hair dryers and hair straighteners will be tested for compliance with selected requirements of AS/NZS60335-2-23 including insulation resistance, creepage and clearance distances and supply cord flexibility.

Once received the test results will be analysed and appropriate action taken. Actions may include - stop sales notices, notices to comply or product recall notices.

Handy safety hint. Never leave frying unattended, the oil may boil over and start a fire.

NEW WIRING RULES – AVAILABLE IN NOVEMBER

The finishing touches are being put to the latest edition of the Wiring Rules, AS/NZS 3000:2007. All being well, copies of the rules will be available in November and ESV urges the electricity industry to become familiar with the contents as soon as possible.

Preparing the new version of the Wiring Rules has taken many months. Committee EL 001 has met on a number of occasions recently to review formats, count the votes for and against the changes, assess the comments received from throughout the industry, and make the required refinements.

Those involved can almost breathe a sigh of relief that the work is coming to an end.

It is understood the latest and final draft will be endorsed by the committee at its next meeting in September. Publication will then proceed with copies available for purchase in November.

More information about the new Wiring Rules will be available on the ESV website at www.esv.vic.gov.au. Electrical workers are encouraged to visit the site regularly.

THROW THE SWITCH TO ENERGY EFFICIENT LIGHTING, SAYS MINISTER

Replacing incandescent lights with compact fluorescents could improve household lighting efficiency by 80 per cent, the Minister for Energy and Resources, Peter Batchelor, said recently when unveiling the new Black Balloons TV and print advertisements.

“Energy efficient compact fluorescent bulbs use around 60 per cent less electricity, save 2000 black balloons of greenhouse gas each year and last up to eight times longer than conventional globes,” he said.

He said the Black Balloons campaign, which started on 5 August, is part of a push by the State Government to reduce greenhouse gas emissions by 60 per cent by 2050. The reality of climate change made it imperative that all energy consumers make an effort to reduce power use and emissions.

“Energy efficient globes installed in high-use zones of the house such as in the kitchen, lounge room and for security lighting will reward householders quickly with reduced running costs,” Mr Batchelor said.

“Some of the effects of drought is that Victorians will soon see increases in power costs because reduced water availability has increased generation costs. Prices in NSW and Queensland are already set to rise by at least 8 per cent to 11 per cent,” he said.

A wide range of energy efficient lighting options is now available, including dimmable compact fluorescent lights, which can replace downlights, as well as energy efficient LED lighting.

He said that 70 per cent of greenhouse emissions are from energy production and one third of these are from the residential sector. The average Victorian household produces around 12 tonnes or 240,000 balloons full. (One black balloon represents 50 grams of greenhouse gas).

Lighting accounts for nine per cent of the average home’s greenhouse gas emissions.

The energy efficient lighting campaign follows a Black Balloons campaign focus in July on getting people to save energy by running household heaters at between 18 and 20 degrees.

The new television advertisement can be viewed at www.SaveEnergy.vic.gov.au
WHAT IS A TYPE B GAS APPLIANCE?
ESV regularly receives calls from licensed persons regarding the types of gas appliances on which they can work. The most common question appears to involve commercial catering appliances which are often confused with Type B appliances. Generally a Type B appliance is one for which there is no specific appliance standard to certify it to. They are individually accepted by ESV if compliant with AS 3814.
Type B appliances are usually industrial-type appliances and often exceed 500 MJ/h but can be as small as 10 MJ/h. Some examples of Type B appliances are spray booths, steam boilers, larger heating boilers, furnaces and kilns. Commercial catering appliances are certified as Type A. Appliances and can be serviced by holders of Plumbing (Gasfitting) licenses or registration.
Work on Type B appliances is a form of specialised plumbing and must only be carried out by holders of a Plumbing (Type B Gasfitting) licence.

USE OF FLEXIBLE HOSE ASSEMBLIES
The use of flexible hose assemblies is still causing concern to ESV’s gas inspectors. As explained in energy safe issue seven, there are different pressure and temperature ratings for hoses. Hose assemblies must be of the right class for the application and they must be installed in a safe manner. Some manufacturers prohibit the use of hose assemblies to their appliances. Always refer to the installation instructions.
When installing hose assemblies ensure that they are hanging in a U-loop to minimise strain or undue stress. Upside down loops or sideways loops are not acceptable.

GAS APPLIANCE ISOLATION VALVES
ESV inspectors come across new and change-over appliance installations that require an isolation valve be fitted, and often find the valve installed in another room or even external to the building. AS 5601 Clause 5.6.3 states that the isolation valve shall be provided on the inlet of the appliance, and shall be readily accessible for operation.
The intent of the Clause is that for valve to be installed in the same room, adjacent to or on the appliance. Remember too, there must be a means of disconnection on the outlet side of valve.

GAS INDUSTRY BITS AND PIECES OF INTEREST
- ESV invited a number of Gas Achievement Award winning apprentices from TAFE colleges across Victoria to spend two days with our inspectors. In particular, the apprentices will visit a number of high rise installations and witness the commissioning of Type B appliances.
- The committee responsible for AS 5601-Gas Installations is preparing the next edition for early 2008. The committee has been required to amalgamate the current Australian and New Zealand Installation Standards. Format changes will allow for a performance based outcome as well as the existing prescriptive section. It is likely that the caravan and marine craft sections will become a stand-alone standard.
- The Gas Installation Regulations will sunset in 2009 and revision work is being carried out to ensure the replacement regulations are ready in time and will be applicable for the next 10 years.
- An initial meeting took place with Vic Roads regarding the gas safety compliance of imported caravans and RVs prior to initial registration, and for second-hand ones, at change of ownership.
- A number of installers were recently invited to an information night to hear about proposed changes to the way we will inspect or audit gas installations in the future. Many of the comments received will be considered when finalising the proposal.

HIGH RISE BUILDINGS – GAS CONNECTIONS
Some installers are incorrectly using flexible connections when branching off a riser. Flexible connections are used at each branch to allow for movement in the riser due to expansion and contraction as a result of temperature change. In Melbourne, the temperature can vary between 0°C and over 40°C. Also, the movement of the building over time can affect the support system for the consumer piping.
There have been instances where the installer has fitted a flexible connection on the vertical to compensate for this movement. This is not acceptable. The flexible connection should be fitted horizontally to allow movement of the riser without putting stress on the branch. Fitting a flexible connection vertically will cause it to be subject to compression or stretching. Pipe riser shafts should allow for the connections to be made, but the installer is responsible to ensure they are fitted correctly and safely.
If in doubt seek advice from the manufacturer of the flexible connection. Where necessary, there could be other means to install partially on the vertical plane, such as by using a certified swivel connection.
Always double check with your gas inspector.

NEW GEELONG OFFICE
ESV’s office in Geelong is now located at Suite 204 – 78 Moorabool St Geelong.
Contact for Phil Humphries Mobile: 0419 001 909 Fax: 9894 9824
**COMPOSITE PIPING INSTALLATIONS**

Composite piping is increasingly being used, and often it is being installed without the required UV protection.

All externally located composite piping must be protected from ultraviolet radiation (sunlight) unless the piping is predominantly black in colour.

This includes at the rough-in stage, where pipe is installed and left unprotected until the installation is completed. Piping must also be covered or protected when stored.

Gas Companies will be reporting non-compliances to ESV, and we will follow up with the responsible installers.

**Means of protection**

The following means of protection is considered acceptable by the manufacturer or supplier:

**ALUSPESX**
- UV stable sleeving

**FLOWPESX**
- Not required (predominantly black)

**GAS PEX**
- A coat of UV stabilized paint

**PEXAL**
- UV stable sleeving or UV stable paint

**PIPEXOWV**
- Pipe which has UV protection

**REHAU**
- Metal cover or black PE conduit

**IPLEX**
- Sleeved or lagged with a durable black plastic material (PE or uPVC)

If more specific information is required, contact the supplier.

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**CLEARANCE FROM AIR CONDITIONERS TO GAS METERS**

ESV has become aware of an increasing number of air conditioners being installed in the hazardous area around gas meters and LPG cylinders.

Gas Companies have been advised of the hazard and will be reporting non-complying installations.

The minimum clearance from a gas meter is 1000 mm, or 1500mm if the regulator relief opening is facing the air conditioner.

(AS 5601 Clause 4.7.11)

The clearance from an LPG cylinder could be 1500 mm or 3500 mm depending on the type of cylinder. Check with the gas supplier.

These situations must be made to comply by the installer of the air conditioner.

The alternative could be withdrawal of the gas supply.

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**MATURE AGE STRATEGY - MASTER PLUMBERS “TAPPING INTO EXPERIENCE”**

Some 30 Victorian job network officers attended the Master plumbers” and Mechanical Services Association of Australia (MPMSAA) information session earlier this year to gain an insight into the “profession of Plumbing” and the vast range of job opportunities for mature aged plumbers.

Project manager, Peter Kikos, presented an overview of the project which is funded by the Australian Government’s Mature Age Industry Strategy Fund and seeks to develop a practical model that will enable retention, retraining and support for plumbers (45 plus) to return to the industry.

The responses to surveys distributed to plumbing companies, TAFE Institutes, WorkSafe Victoria, Plumbing Industry Commission and retail outlets has been very positive, with many of the companies surveyed stating that they would employ a plumber who is 45 plus because they bring:

- Experience and knowledge
- Good work ethic
- Good customer skills

**Company** | **Job Opportunities** | **Number** | **Job Description** | **Qualifications**
---|---|---|---|---
**Plumbing** | Full Time | 6 | Various | Licence/Registration
| Part Time | 10 | |
**Secondary Colleges** | Full Time | 6 | Trade Teacher | Certificate IV Training
| Part Time | 13 | Grounds Maintenance | Trade Background
| Maintenance | 9 | |
**TAFE** | Teacher | 4 | Trade Teaching | Certificate IV Training
| Storeperson | 2 | Maintaining tools | Trade Background
**Retail** | Sales | 4 | Plumbing Supplies | Plumber/Sales skills
| Store | 1 | Warehouse | Forklift licence
| Driver | 1 | Delivery | Drivers Licence (truck)
**Regulators** | PIC Inspectors | 2 | Auditing and assessing plumbing work | Licensed Plumber
| WorkSafe Inspectors | 13 | OH&S Inspection | OH&S qualification or experience
**Insurance** | Assessing Claims | 2 | Assessing water/gas plumbing damage | Plumbing background & good communication skills

Peter informed the job networks that “if there are any licensed/registered plumbers on their books and seeking to re-enter the industry, he wanted to talk to them.”

A number of applicants have since commenced training in Green plumber programs, Certificates in Training and short courses.

Peter said: “We have identified their skills gap and now we are working towards closing it.”

Plumbers interested in participating in the project should contact Peter at MPMSAA on (03) 9321 0795 or email peter@mpmsaa.org.au

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**OPEN VALVE SLOWLY!**

It’s an old adage that may have gone awry over the passage of time, but still has merit in both gas and water installations: ‘Open Valve Slowly’ whenever turning on supply.

By cracking a valve open and allowing pressure to slowly increase downstream can eliminate the surge of pressure or in the case of water, hammer in the pipework.

Gas distribution businesses have noticed an increasing number of reported gas escapes from the service regulator on the meter installation, particularly in relation to the 2.75kPa metering pressure.

From investigations, it appears that plumbers who are either commissioning a new installation or reconnecting supply after maintenance works, are opening the service valve too quickly.

This has the effect of causing a rapid pressure rise in the downstream consumer installation, particularly in small volume systems, and before the service regulator can react to the rising pressure, the internal relief valve is popped off its seat and allows gas to pass to the atmosphere.

Due to the design of these relief valves, it may take some time for the poppet to properly retract and stem the flow of escaping gas; these instances are often reported to the gas company as a faulty service regulator.

So, the message is clear! Don’t unnecessarily subject yourself or your customer’s premises to risk of a gas escape; when turning on the gas supply for whatever reason, remember ‘Open Valve Slowly’.

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**Guiding Winter 2023**

**Assessing Claims**
- Assessing water/gas plumbing damage

**PIC Inspectors**
- Auditing and assessing plumbing work

**WorkSafe Inspectors**
- OH&S Inspection

**Drivers Licence (truck)**
- Forklift licence

**OH&S qualification or experience**
- Drivers Licence (truck)

**Plumber/Sales skills**
- Plumbing background & good communication skills
ESV WARNING: BEWARE OF UNDERGROUND POWER CABLES

Take extreme care when “hammering” metal stakes into the ground

The death of a dog when it contacted a “live” wire mesh fence prompted ESV to issue a Safety Alert warning landscapers, gardeners and others to be aware of the dangers when “hammering” star pickets into the ground.

The dog was killed when it contacted the fence being used to protect a recently planted tree.

The Safety Alert said that a metal star picket used to support the wire mesh had been driven through protection covering slabs and then through the cable insulation causing damage to the red phase conductor of the underground cable mains.

The wire mesh and 3 star pickets had become energised at 240 volts.

Director of Energy Safety, Ken Gardner, said in the Alert: “Many crucial electricity cables, laid in road reserves and nature strips, are hidden dangers. Damaging these cables could not only cost you thousands of dollars, but could result in serious injury – or even deaths.”

The Alert said people must exercise extreme care, perform a detailed safety assessment and obtain information on the network of electrical cables and gas pipes that may run underneath the area that they work on.

ESV provided the following advice to people when digging deeper than 300mm or driving pickets or posts into the ground:

– Contact Dial Before You Dig by telephone or lodging your inquiry via the interactive web service at www.dialbeforeyoudig.com.au.
– Always carry out a Job Safety Assessment before starting work
– Consider using timber posts where suitable
– Avoid “hammering” star pickets deeper than 300mm into ground by making a mark 300mm from the sharp end of the picket
– Comply with the No Go Zone Rules


– Immediately notify the relevant electricity supplier or Energy Safe Victoria on 1800 000 922 if contact has been made with electrical cables

ESV WARNING FOR HOUSE REMOVERS AND DEMOLITION CONTRACTORS: ALWAYS VERIFY THE STATUS OF THE ELECTRICITY SUPPLY

An electric shock suffered by a contractor removing a house prompted ESV to recently issue a Safety Alert warning house removers and demolition contractors of the importance of verifying the status of the electricity supply to a property before it is removed or demolished.

ESV is investigating the particular incident.

The Safety Alert said: "It is ESV’s view that the circumstances surrounding this incident should send alarm bells to everyone involved in one way or another with removing or demolishing houses."

According to ESV investigations, the contractor involved attempted to verify that the electricity supply to the house had been abolished by the local electricity distribution company.

He attempted to turn lights on and when they did not work he assumed that the power had been removed.

He then placed the house on jacks and attempted to cut through the electricity conduit still connected to the house, and received an electric shock.

This is not a safe work practice!

In the Alert, ESV stressed the need for house removalists or demolishers to request a supply abolition (complete removal of meters and overhead service cable or disconnection of service cable at a service pit) when contacting the local electricity retailer, rather than a supply disconnection (fuse removal only, electricity still present at point of supply) request, prior to carrying out any house removal or demolishing activity.

Prior to any house removal or demolishing activity, ESV advises contractors to always –

– request a Supply Abolishment from the local electricity retailer well in advance of the proposed works;
– obtain formal notification from either the local electricity retailer or electricity distributor confirming that an abolishment of supply has been carried out; and
– have a test carried out by an appropriately qualified person and confirm the status of electricity supply.

“POWER PUZZLE” – ESV IDENTIFIES THE LIKELY CAUSE

ESV and distribution company, Powercor, have continued to investigate the “mysterious” power interferences reportedly plaguing a number of factories on a light industrial estate in Prospect Road, East Bendigo. The issue has been an important topic for the local media which originally branded it as a “Power Puzzle”.

A statement issued by ESV recently stated that after weeks of detailed investigations into the interferences, it is of the opinion that a faulty piece of machinery or equipment is the most likely cause of the interference.

Director of Energy Safety, Mr Ken Gardner, said in the statement that ESV and Powercor will continue its investigations to both confirm the cause of the problem and the source, which might be situated in a Prospect Road factory or another unit nearby.

“Any faulty machinery or equipment within an installation could distort the power supply to neighbouring premises but can be difficult to identify because the interference is intermittent.”

In the statement, Ken said that following the installation by Powercor of an additional substation in Prospect Road, the number of problems had reduced significantly and been confined to a few factories located within the “bowl” of the Prospect Road industrial estate.

“Some of the problems that have occurred are explainable. For instance the wrong type of circuit breakers were installed on some of the installations and these would not have prevented the interference from occurring.

“The power points which have been catching fire for what appears to be inexplicable reasons have been forwarded for forensic examination to determine where the fire started and the possible cause.

“ESV and Powercor remain committed to identifying the interference problem and rectifying it,” said the statement.
CONTACT DETAILS FOR ELECTRICITY DISTRIBUTION BUSINESSES

As a service to readers and a resource for registered electrical contractors, energysafe provided a list of contact details for distribution businesses in Issue 5. With some changes happening since, it is only appropriate to publish the latest list of contact details.

There are numerous Energy Retailers for customers to choose from and a fact sheet can be obtained from the Essential Services Commission website www.esc.vic.gov.au

Refer to Section 3 (Distributor Areas and Contact Details) of the 2005 Victorian Service & Installation Rules for the location of boundaries between the Distribution Companies.

SP-AusNet
New Connection
SP AusNet
Beaconsfield Ave
Beaconsfield Victoria 3807
Ph: 1300 360 795
Fax: (03) 9217 2773 (Abolishment requests only)
Email: electricitynetworkconnections@sp-ausnet.com.au

Supply Extension
SP AusNet
Network Service Centre
Beaconsfield Ave
Beaconsfield Vic 3807
Ph: 1300 360 795
Fax: (03) 9238 6447
Email: network.servicecentre@sp-ausnet.com.au

Website

SP-AusNet Faults and Emergencies
Powerline emergencies 131 799

Citipower and Powercor
CitiPower Connections
Address: 35 Rooney Street
Burnley Victoria 3121
Fax: (03) 9297 6350
Email: NewConnLNSP@citipower.com.au
Contact Centre: 1300 132 894

CitiPower Truck Appointment booking website link

Powercor Connections
72 Roseneath Street
North Geelong Victoria 3215
Address: PO Box 185
Geelong Victoria 3220
Fax: 1800 062 242
Email: PALNewConnections@powercor.com.au
Contact Centre: 1300 360 410

Connection Technical Advisors
Address: 35 Rooney Street
Burnley Victoria 3121
Fax: (03) 9297 6350
Email: NewConnLNSP@citipower.com.au
Contact Centre: 1300 132 894

Websites

Faults and Emergencies
To report faults please call:
Powercor - 13 24 12
CitiPower - 13 12 80

United Energy Distribution
Customer Service
Telephone: 1300 131 689
Fax: 1300 131 684
Email: recnew@alinta.net.au

SIR Enquiry Contact Numbers
For any questions relating to Service & Installation Rules interpretations or clarifications within the UED area please contact UED representatives between 8:00AM and 10:00AM Monday to Friday as follows:
Moorabbin and Burwood 9552 2714
Mornington 5970 2210

Website
www.ue.com.au

UED Faults and Emergencies
Telephone: 132 099

ALINTA AE
Alinta AE New Connections Dept
Ph: 1300 131 871
Fax: 9351 2223
Email: new.connections@agility.net.au

Alinta AE Electrical Compliance Dept
Ph: 1300 855 824
Fax: 9351 2223

Website

Alinta AE Faults & Emergencies
Ph: 131 626
Fax: 9201 7278
When Shell’s Geelong Refinery gained approval last year to operate its own Electrical Safety Management Scheme (ESMS), there was due acknowledgement given for the work and enthusiasm of the plant’s Electrical Safety Committee towards achieving the success.

As Refinery manager, Huck Poh, said: “We are extremely proud of our Electrical Safety Committee which is demonstrating a new maturity in industry by working with Energy Safe Victoria to provide a voice into the local industrial community.”

The committee was established in December 2005 and was chartered to focus on internal and external electrical safety issues. Membership of the committee consists of Shell maintenance electricians, electrical contractors and Shell electrical engineering staff.

The committee produces regular Electrical Safety Bulletins to raise and maintain the profile of electrical safety within the Geelong Refinery. Its logo features the fearsome “Sparky” with the simple message: “Electricity bites, respect it.”

The committee’s charter:

“INTERNAL FOCUS: To maintain/ increase the electrical safety of electricians and contractors - people who perform electrical work at the refinery.

“EXTERNAL FOCUS: To maintain/increase the electrical safety awareness of the broader refinery population.”

Joe Gulino from Shell Electrical Engineering told energy safe: “The Electrical Safety Committee is a group of very passionate people within the electrical team. Achieving the ESMS has given us a strong voice to promote electrical safety.”

Joe said the team is active in promoting electrical safety via safety alerts and its own website. The committee also works closely with ESV promoting both industrial and domestic electrical safety.

Recent activities conducted by the committee include:

- Audit of temporary supplies used on the recent RCCU turnaround (Shutdown) >1MW of temporary supplies installed.

- Review of in-house low voltage isolation procedures site wide.

- Issuing of personal E.A.R face shields to all Level 1 First Aiders in the Shell Electrical department.

Apart from Joe, current members of the committee are: Jeremy Bevan (Shell Instrument Mechanic), Greg van Hees (Downer Electrician), Fernando Lazano (T.E.A.M.S Electrician), Alex McLaws (Shell Electrician), Barry Pollard (Shell Electrician), Peter Purcell (Shell Electrical Engineering), Steve Reekie (Gordon McKay’s Lara Electrician), Phillip Robertson (Shell Electrician), Ian Strachan (Gordon McKay’s Onsite Electrician).

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. Many victims of serious and fatal electrical accidents are barefooted.
CABLE JOINTER INJURED IN ELECTRICITY “EXPLOSION”

There was quite a deal of media interest when a cable jointer was seriously injured in a reported explosion while working on a line in Southbank in early June. As depicted in one of the accompanying photographs, the size of the burn mark on the wall provides a good indication of the force of the explosion.

According to the media reports, the victim received burns to 20% of his hands and face, and was “lucky to be alive” following the incident. He was still in hospital undergoing treatment several weeks after being injured.

The victim and another cable jointer were working for a company subcontracted to distribution business, CitiPower. Some 350 premises in Southbank and South Melbourne, including ESV’s Southbank head office, lost power for about 40 minutes after the explosion. Nearby buildings – including the Herald and Weekly Times Tower – suffered a brief power blackout about the same time.

ESV assisted WorkSafe Victoria and CitiPower with the investigations which are ongoing. It appears the explosion occurred when the victim accidently cut a live cable with a saber saw.

ESV has ascertained during its investigations that the cable jointers were replacing a fatigued lead cable in Balston Street, Southbank, with new XLPE cable – a process requiring two joins.

After completing the first join, the two men prepared to complete the second one. The victim was cutting the cable with the saw when the explosion occurred. His clothes were on fire and his colleague started emergency procedures.

The scene at Southbank when a cable jointer was seriously injured. The size of the burn mark on the wall - a good indication of the force of the explosion.

MAN INJURED IN CONTACT WITH POWERLINE

ESV is investigating an incident at Mulgrave on 18 August in which a 34-year-old man was critically injured when the bucket of the elevated work platform (EWP) in which he was working contacted a high voltage 22kV overhead powerline.

The man suffered serious burns to the right side of his body and was placed in intensive care at the Alfred Hospital. At the time of going to press, he was reportedly progressing well although he will need extensive skin grafts.

The victim was removing metal flashing from a factory building when the incident happened. He was part of a team of some five people involved in an asbestos removal operation at the site.

According to interviews with others on the site at the time, the victim had taken the EWP to the south end of the building to work. Some 15 minutes later, colleagues heard a loud noise followed by the victim yelling out. One of the colleagues saw the victim in the EWP bucket with his clothes on fire.

The victim jumped across to the roof so he was not touching the bucket and roof at the same time, and colleagues smothered the flames.

The initial conclusion from ESV’s investigations is that when the arm of the EWP contacted the powerline, the EWP was then live at 12.7kV above earth. When the victim attempted to undo a screw on the flashing with a battery drill he completed the circuit to earth via the steel frame building.

This caused massive currents to flow through victim setting fire to his clothing.

ESV and the Dial Before You Dig service have established an official alliance aimed at reducing the millions of dollars worth of damage caused annually to Victoria’s networks of underground assets.

The alliance was announced in a media statement released on 1 July.

The statement said that Dial Before You Dig (DBYD) is a free referral service used by professional contractors, underground asset owners and individuals undertaking excavation. It is DYSD’s claim that within two clear working days of lodging an enquiry, members of the service can receive location and other relevant information assisting them to excavate securely and safely.

The Chairman of Dial Before You Dig, Mr Scott Reid, said in the release: “People and companies can literally cause millions of dollars worth of damage and threaten both lives and livelihoods within seconds through careless excavation practices.

“The partnership we are announcing today with Energy Safe Victoria is another step in the right direction of ensuring the risk associated with excavation incidents are minimised.”

Director of Energy Safety, MrKen Gardner, said: “It is important to realise that cables and pipes can be anywhere – they are laid at varying depths on both public and private property and can be located both inside and outside of easements meaning that unsuspecting diggers can very quickly find themselves cutting essential services to their own home, or in some cases, to entire towns and cities.”

Energy Safe Victoria is supporting Dial Before You Dig by strongly encouraging all asset owners:

- are members of Dial Before You Dig
- lodge all new asset locations with Dial Before You Dig
- update changes to existing asset locations with Dial Before You Dig when they occur
- respond to location enquiries within two working days
- embrace technology to improve the quality of information provided to those people who lodge enquiries through Dial Before You Dig
- commit to the development of an asset incident register coordinated by Dial Before You Dig established to monitor incident trends.

And mandating that all asset owners are;

- communicating to staff and/or contractors that they have an obligation to utilise the Dial Before You Dig service
- committing to supporting the development of ‘Guidelines’ for all Dial Before You Dig stakeholders including embracing the obligations of members and users of the service

Dial Before You Dig is a national not-for-profit association of member companies that own underground assets and was established to provide a free one-stop referral service in the interest of greater public safety and the reduction of damage to underground assets. It can be contacted on 1100 or by logging onto www.dialbeforeyoudig.com.au

The alliance between ESV and Dial Before You Dig is another step in the right direction of ensuring the risk associated with excavation incidents are minimised.

And mandating that all asset owners are;
ESV has expanded and enhanced its range of on-line services. You can now conduct a number of business transactions with ESV electronically.

There will be many advantages for organisations and individuals, for instance:

- Registered Electrical Contractors (RECs) can:
  - Renew registrations
  - Change business details
  - Improve ordering and management of certificates of electrical safety.

- Licensed Electrical Workers (LEWs) can:
  - Renew licences
  - View reports of business activities.

- Licensed Electrical Inspectors (LEIs) can:
  - Renew licences
  - Add inspection classes
  - View reports of business activities.

- Agencies selling certificates of electrical safety can:
  - View stocks of certificates
  - View sale history
  - Transfer or restock incorrectly sold certificates.

THERE WILL BE MORE...

Before too long applications for new REC, LEI and LEW registrations and licences can be made on-line.

In due course, it will also be possible to apply for approvals for new equipment electronically.

DON’T BE LEFT BEHIND. UPDATE YOUR PROCESSES AND CONDUCT MORE OF YOUR BUSINESS WITH ESV ON-LINE.

Stay tuned, for more news regarding the new and enhanced ESV on-line services.