

energysafe

Creating a safer state with electricity and gas

Autumn 2016

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# DIYEDIE



DON'T DIE TRYING TO BE AN ELECTRICIAN

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#### **Our cover**

DIY = DIE is the name of a new ESV campaign to deter people from doing their own electrical work. The campaign was developed after the electrocution deaths of two farm workers in the past six months.

Photo: Darren Tindale



and get important safety updates and ESV news delivered to your news feed. Don't be the last to know about vital safety alerts, product recall notices or ESV news

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#### To contact ESV

P (03) 9203 9700 E <u>info@esv.vic.gov.au</u>

For further information go to www.esv.vic.gov.au

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### **Editorial**



Managing editor
Sharon Rainsbury

Editor

Michelle Robertsor

Contributors

Michelle Robertson

Anitra Robertson

Darrett Tille

Laurie Devit

reter wau

Fore Alfanost

David Eddy

John Stolk

Tyler Masor

Editorial assistar

Janice Williams

Design

Aer Design

#### Authorised by

Energy Safe Victoria
Building 2, 4 Riverside Qua
Southbank, VIC 3006

E info@esv.vic.gov.au

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### From the Editor

More than 75,000 Victorians have warm, colourful feet this month thanks to ESV and the Herald Sun.

We've given away 75,000 pairs of red and blue slipper socks as part of our annual campaign to promote the importance of gas heater servicing and the dangers of carbon monoxide.

Herald Sun readers who bought a paper on Saturday, 11 June, received a bonus pair of our socks, which come with a reminder card that stresses the importance of regular appliance servicing.

It's six years since the tragic deaths of Chase and Tyler Robinson in their Mooroopna home, and ESV remains as committed as ever to raising awareness about this silent killer and ensuring that no other family endures the heart-breaking loss of a loved one.

We don't want any Victorians to get cold feet this winter, so if you'd like a free pair of our socks, email us at <a href="mailto:info@esv.vic.gov.au">info@esv.vic.gov.au</a> and we'll send you a pair.

We had a great response to our new electrical safety campaign DIY = DIE when it was launched in Shepparton in May.

While we unveiled it in regional areas first in



response to the two recent farm deaths, we will be rolling it out across metropolitan areas in the new financial year so you'll be seeing a lot more of this campaign.

The imagery seems to have struck a chord with the striking screwdriver ad shared 20,000 times on Facebook in the week after the campaign launched. Thanks to everyone who helped us spread this important message.

It seems a lot of us know DIYers who should be calling in the professionals when a job needs to be done.

Sharon Rainsbury srainsbury@esv.vic.gov.au



# New website coming for ESV

By Anitra Robertson, Marketing and Communications Advisor

ESV is excited to announce its website is being redeveloped and a new version is expected to be launched later this year.

The current ESV website is in need of a refresh and you may recall that late last year we asked for some feedback in our biennial stakeholder survey.

The feedback we received has helped us understand what is important to you. For example, some people told us it can be hard to move around the website and find what is needed quickly and easily.

The new ESV website will use the latest web technology to provide the best possible user

experience, making it easier to interact with ESV and find the information you are looking for.

It will be optimised for mobile and tablet devices so you can easily get the information you need when you are out and about.

Our team has spent the past few months undertaking preparatory work for the website redevelopment and we are about to launch into the development phase.



Email us with your website suggestions to <a href="mailto:info@esv.vic.gov.au">info@esv.vic.gov.au</a>

### Cannon reissues safety notice for inbuilt gas heaters

**By Sharon Rainsbury. Executive Manager Media** and Communications

Gas heater manufacturer Cannon has reissued a safety notice urging homeowners with Cannon Fitzroy or Canterbury inbuilt gas heaters manufactured between 20 March 2001 and 8 October 2009 to have them checked for carbon monoxide

Cannon will be meeting the cost of the safety checks, and also providing compensation of up to \$150 for heater owners who had their heaters checked following the initial safety notice that was issued in June last year.

The initial notice was issued after laboratory testing showed it was possible these heaters could produce potentially hazardous levels of carbon monoxide if they were subjected to certain conditions, including the operation of rangehoods and other exhaust fans in the home.

If there is a fault attributable to the manufacture of the heater itself (as opposed to the way it is installed), Cannon will cover the cost of rectifying the heater. Customers who had heaters rectified following last year's notice should contact Cannon to discuss reimbursement of their

ESV's Director of Energy Safety, Paul Fearon, commended Cannon for reissuing the safety notice and urged Cannon customers with



Safety notice: Cannon customers can contact the company to have their heaters checked.

the affected models to contact the company to arrange for a free check.

"ESV has been working closely with Cannon on this issue," Mr Fearon said. "We thank the company for implementing this program to address these safety issues."

Cannon customers can contact the company on 1800 035 410 to arrange a check or to discuss reimbursement of costs.



For more details go to the Cannon website.

### **Proposed** changes to hoverboard requirements

**ESV** is considering imposing additional requirements on the supply of hoverboards in Victoria to ensure all products sold meet specific safety requirements.

Suppliers would be required to apply to ESV for a Certificate of Compliance (also known as a Certificate of Suitability) that, when granted, would indicate their product was approved and met specified safety requirements.

As part of the proposal, ESV is considering prohibiting in Victoria the supply of hoverboards that are not covered by a Certificate of Compliance issued by ESV

The Certificate of Compliance assessment would also ensure compatibility of the power supply, the batteries and the unit itself.

The proposed safety requirements will be the same as those applied to mains-powered household appliances, such as refrigerators and heaters.

In addition, compliance with these requirements would ensure compliance with the ACCC's current ban.

ESV is accepting submissions on the proposal from suppliers until 10 June 2016. Further details are available on the ESV website at <u>esv.vic.gov.au</u>. **≤** 



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### Latest news

# GasTrac is coming soon!

By Darren Tilley, Senior Inspector
Gas Installations and Appliance Safety

#### ESV will launch GasTrac later this year, a new online gas installation acceptance system that will make managing gas applications quicker and easier.

The new system will allow gas professionals to actively manage gas applications online and ensure faster turnaround times for Gas Supply Approvals and Gas Installation Acceptances.

The GasTrac online system enables users to:

- » submit information on Complex gas installations and Type B appliances
- » check the status of active gas applications
- » access applications
- » achieve faster turnaround on acceptance and issuing of gas supply approvals.

#### **New look correspondence**

This means the look and feel of correspondence generated by your Gas Application will be slightly different.

The changes include updated email correspondence and reformatted correspondence letters in PDF format.

The Conditions of Acceptance letter (COA) will now contain links (where appropriate) for:

- » Consumer piping test report
- » Protection of combustible surfaces form
- » Type A Appliance Certification Details
- » Type B Appliance Checklist

The new format of the COA letter will also include links to gas technical information sheets that are relevant to your Application for Acceptance.

To assist your transition to the new format, you can view or download the new COA letter and updated forms by clicking **here.** 



### Gas application number no longer pre-populated on forms

It is important to note the gas application number and applicant details will no longer be pre-populated. You will need to insert this information into the relevant sections and forms prior to returning the information to ESV.

### **External launch**

We are excited to be launching the new system later this year and will keep you posted as we progress. 

■

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### **Options & Accessories:**

- Various voltages & pressure ratings available
- Optional interlock relays for FIP & BMS
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#### Applications:

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- Schools & Education Facilities
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- Wherever safe gas shut off is required

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# Celebrating World Plumbing Day at PICAC

By Laurie Devitt, Gas Inspector

ESV shared the news about its new GasTrac online application at the recent World Plumbing Day event at Plumbing Industry Climate Action Centre (PICAC) in Brunswick.

ESV inspectors explained the GasTrac framework and its benefits, such as streamlining the current application process and providing progress reports to gasfitters.

Links will also be provided to ESV technical information sheets specifically related to each gas application. Attendees were very positive about this project and are looking forward to its launch.

Now in its fifth year, the 2016 World Plumbing Day event was a resounding success with more than 450 people attending the Industry Forum, the Trade Expo and the Apprentice Skills Competition.

World Plumbing Day (WPD) is an international event held on 11 March each year. It was initiated by the World Plumbing Council to unite the plumbing industry and promote the important



ESV Gas Inspectors Laurie Devitt, Doug Rennie, Kevin Dwyer and Pat Farrell at World Plumbing Day.

role plumbing plays in ensuring everyday health, safety and community sustainability.

ESV is a major sponsor of the local World Plumbing Day activities and the theme of this year's event was Preparing for the future: Technology, Skills and Environment.

A capacity crowd including plumbers, apprentices, industry experts and representatives from all over Australia filled the Great Hall to listen to keynote speakers.

### **Aviod FALSE Readings!**

The Dangers Of Carbon Monoxide

### The course is ideal for those wanting to learn more on:

- The dangers of Carbon Monoxide.
- · Symptoms of Carbon Monoxide poisoning.
- Measuring CO levels.
- · Checks to be performed on equipment.
- Legislative requirements for CO measurement on gas consuming appliances/equipment.
- Correct fluing and ventilation overview of gas burning equipment.

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### Latest news

# Minister launches campaign to deter DIY electrical work

By Michelle Robertson, Senior Media and Communications Adviser

#### ESV has launched a new campaign called DIY=DIE to deter people from doing their own electrical work.

Victoria's Minister for Energy, the Hon. Lily D'Ambrosio, launched the campaign in Shepparton following the electrocution deaths of two farmers in recent months.

The first phase of the campaign specifically targets farmers and farm workers. Thirty per cent of Victoria's workplace incidents occur on farms.

In November a 75-year-old man was electrocuted at Moorabool while attempting to repair a pump on a rural property, then in January a 21-year-old dairy farmer from Yarroweyah died while attending to a pump in a drainage pit.

Minister D'Ambrosio said doing unqualified electrical work was illegal and could be fatal.

"There is no situation where it was safe or acceptable to perform electrical work if you aren't a qualified and licensed electrician," she said. "You may think you can save time and money, but you don't want to pay with your life.

"I can't emphasise enough that people in rural areas should always call in qualified electricians to perform any type of electrical installation work."

ESV's Executive Manager Electrical Installations, Licensing and Equipment Safety, Neil Fraser, said farmers and rural workers needed to be very careful about how they maintained electrical installations and equipment.

"We know that farmers are adept at a range of skills but electrical work is not something unlicensed people should ever attempt," he said.

The campaign will run in newspapers, radio, online and on billboards.



Don't die trying to be an electrician: ESV's Neil Fraser, Victorian Minister for Energy Lily D'Ambrosio and Suzanna Sheed MP, Member for Shepparton District, launching the new campaign in May.

### Safety tips for farmers

- » Electrical work must be performed by licensed electrical tradespeople
- » A slight tingle or fuses blowing regularly are signs of a serious electrical problem and need to be investigated by a qualified tradesperson
- » Never try fixing electrical equipment or get around the problem by adding extra fuse wire or bypassing circuit breakers
- » Water and electricity can be fatal—always turn off electricity before clearing or checking a pump or float switch or entering the water.

### ESV sponsors Arborcamp 2016

By Michelle Robertson, Senior Media and Communications Adviser

ESV was one of the sponsors of Arborcamp 2016, taking the opportunity to promote its "Don't put your life on the line" campaign to Victorian tree industry workers.

Arborcamp is an annual industry event organised by the Victorian Tree Industry Organisation. This year's event was held in Mount Martha from 13 – 15 May and included presentations on advanced rigging, conservation arboriculture, social media and wellbeing.

ESV staff gave a presentation about safe work practices near powerlines and distributed free rope bags to more than 100 people.

Click **here** to download ESV's new brochure for tree industry workers. **□** 



Don't put your life on the line: ESV's Gary Wright and Barry Heywood speak to tree industry workers about safe work practices near powerlines.

# City West Water delivers ambitious corrosion protection plan

By Peter Wade, Manager Electrolysis Mitigation

### City West Water (CWW) has delivered an ambitious program to protect its mild steel pipe network from corrosion.

All cathodic protection systems in Victoria are required to be registered with ESV to ensure they don't create any stray current interference with other underground metallic structures.

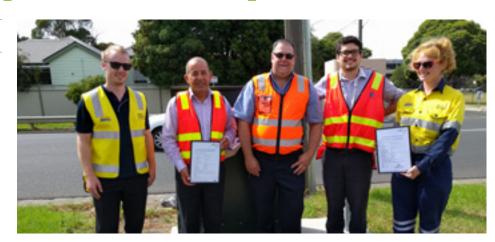
Each system requires considerable co-ordination with major civil works to install the anode ground-bed, connections to the pipeline and connection of the power supply.

The CWW program involved:

- » installing test points at regular intervals on the pipelines
- » conducting an initial survey of all pipelines
- » assessing deficiencies in corrosion protection
- » designing and installing corrosion protection systems.

Contracts were put in place to carry out the majority of the program as well as using CWW's in-house resources. Select Solutions was contracted for specialist corrosion protection.

When CWW commenced the project



Registered: Ain Beruldsen (Select Solutions), Joe Vassallo (CWW), Peter Wade (ESV), Dylan O'Keefe (CWW) and Candice Blackney (Select Solutions) celebrate installation of the first ICCP system

several years ago it was led by Peter Wade, who subsequently left to become ESV's Manager Electrolysis Mitigation. Dylan O'Keefe took over from Peter and completed the project.

Peter was there to present framed copies of the registration certificate to Joe Vassallo and Dylan O'Keefe of CWW along with Ain Beruldsen and Candice Blackney from Select Solutions when the first system was installed.

The program is now well underway, with at least one system being installed and registered for operation every month.

### **Box Hill TAFE Trade Awards**

By Sue Sizer, Compliance Officer and Doug Rennie, Gas Inspector

### ESV sponsored two awards at the Box Hill TAFE Trade and Industry Awards in April.

Matthew Allen won the Energy Safe Victoria Gasfitting Award, while Angus Murray won the Award for Best Third Stage Apprentice in the Certificate III Electrotechnology course.

Matt commenced his plumbing apprenticeship with Geschke Plumbing in 2010. He previously completed a printing apprenticeship in 1994 and had a 20-year career with Amcor before briefly pursuing his own handyman business.

At 45-years-old, the father of four children would highly recommend an adult apprenticeship to anyone desiring a change. Matt is extremely grateful to Geschke for making his apprenticeship possible and looks forward to many years with the company.

Angus Murray started his working life on his father's pig farm. His main role was



High achievers: Angus Murray, Sue Sizer (ESV), Derek Bonar (Box Hill TAFE), Matthew Allen and Doug Rennie (ESV) at the Box Hill TAFE Trade and Industry Awards on 27 April

maintenance of trucks, plant equipment and facilities, with minor roles in livestock management.

After three years Angus decided farm life was not for him and successfully applied for an apprenticeship at Living Electrics.

Most of the work is commercial and

domestic. Angus attends Box Hill Institute for his schooling and has always achieved excellent results. He is enjoying a new career and is looking forward to obtaining his A Class Licence.

Both winners received a scholarship toward further study in their chosen fields. ■

### **NECA Events**

### NECA'S INDUSTRY ROADSHOW. IT'S BACK, BIGGER AND BETTER THAN EVER!

0

Commencing in April, the 2016

TechAdvantage Roadshow is scheduled for 15 locations in both metropolitan Melbourne and major regional centres.

In conjunction with Energy Safe Victoria and a number of the industry's leading manufacturers and suppliers the Roadshow offers something for everyone.

NECA is releasing their new Technical Knowledge Base (TKB) which is revolutionary in providing a one stop shop for all those important standards and technical information that an electrician needs. Fully searchable, always current and absolutely FREE to

NECA members. You can sign up on the spot at the Roadshow!

With over \$25,000 in prizes and giveaways you can browse the exhibition while enjoying a cool beverage and some tantalizing food. Prizes include 2 × Eight Days Bali Holidays worth over \$5,000 each and at every Roadshow event there are over \$1,000 in prizes on offer.

The seminar series will provide the latest information from Energy Safe Victoria, an expert insight into the latest technology that is about to hit the market. Together with current industry hot topics as Power over the Ethernet and what are the real options,

what do you need to know about the burgeoning growth of standalone power and battery storage systems. You cannot afford to miss these vital information provided to you by industry experts.

Each of the trade shows is preceded by some exclusive "Members Workshops". These are Free to members only and will cover a range of topics from the emerging issues of Power Factor Correction and the new KVa tariffs through to the opportunities presented by system integration and the new technologies.

Whilst the shows are FREE to members. Bookings are essential.

### **Roadshow Locations and Dates**

Regional locations are in *italic* 

LOCATION	DATE	ADDRESS	
	April		
Bulleen	13 April	Veneto Club, 191 Bulleen Road, Bulleen	
Dandenong	20 April	Dandenong Club, 1579 Heatherton Road, Dandenong	
Tullamarine	27 April	Quality Hotel, 7 Melton Hwy, Taylors Lakes	
	May		
Bendigo	go 4 May All Seasons, 171–183 M Strathdale, Bendigo		
Altona	18 May	Grand Star, 499 Grieve Parade, Altona Nort	
Echuca	25 May	Moama Bowling Club, 6 Shaw St, Moama	
	June		
Shepparton	ton 1 June Parklake, 481 Wyndham Street, Sheppa		
Albury	8 June	Commercial Club, 618 Dean St, Albury	

LOCATION	DATE	ADDRESS			
	July				
Gippsland- Morwell	13 July	Italian Australian Club, 499–501 Princes Drive Morwell			
	August				
Geelong	3 August	Geelong Racing, 99 Breakwater Road, Breakwater			
Gippsland- Wonthaggi	17 August	Wonthaggi Workmens Club, 75 Graham St, Wonthaggi			
	September				
Croydon	7 September	Dorset Gardens Hotel, 335 Dorset Road, Croydon			
	October				
Ballarat	5 October	Mercure Ballarat, 613 Main Road, Ballarat			
	12 October	Dingley International Hotel, 334–348 Boundary Rd,			
	10.0	3 ,			

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safer state with electricity and gas

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### Electrical news

# New safety alert for working with submersible pumps

Following the electrocution death of a farm worker in January, WorkSafe has issued a new safety alert to highlight the risk of electric shock when using or accessing submersible pumps. The safety alert is reproduced here with permission from WorkSafe.

#### What are submersible pumps?

Submersible pumps are designed to work while fully submerged in liquid and are regularly used to pump out pits, storage tanks, flooded trenches or excavations. They are also used in wells and dams.

The motor on a submersible pump is attached directly to the pump body and submerged in the liquid (see diagram). Many submersible pumps need to be fully submerged to prevent the pump motor from overheating and burning out.

The power cable to submersible pumps is a waterproof rubberised flexible cord. These pumps are often fitted with a float switch that automatically turns the pump on and off to maintain the liquid between two pre-set levels.

Submersible pumps at workplaces are usually 240 Volt but can be three-phase 415 Volt. They can be constructed from a variety of materials including stainless steel, cast aluminium and plastic.

#### Risks

Persons handling submersible pumps may be exposed to electric shock risks due to:

- » deterioration (due to age or reaction to the liquid) or mechanical damage to the flexible power cord fitted to the pump
- » deterioration or damage to the plug-top fitted to the pump's power cord
- » ingress of water into the electric components of the pump
- » burning out of the pump's electric motor
- » failure of part of the pump's earthing system
- » unlicensed person undertaking electrical work.

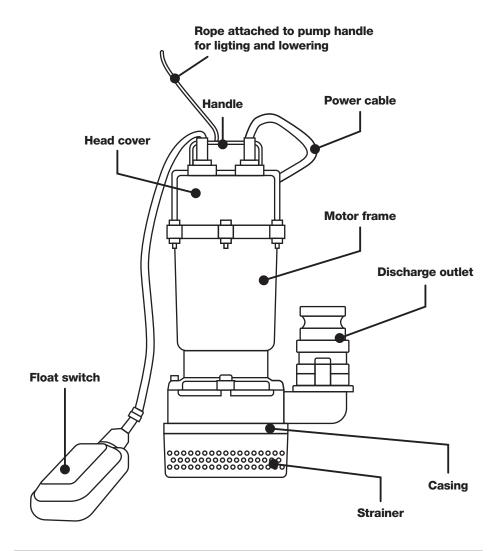
#### **Recommended control measures**

As far as possible, employers must provide and maintain a working environment that is safe and without risks to the health of its employees.

Employers must also ensure, as far as reasonably possible, their conduct does not expose other people to risks to their health or safety.

The risk of electric shock may be reduced by ensuring:

- » Electrical safety controls are in place, such as:
- protecting the pump or the socket-outlet (powerpoint) that the pump is plugged into with a fixed 30mA residual current device (RCD)
- ensuring that when pumps are plugged into a socket-outlet, the outlet is suitable for the location (such as weatherproof type rated at IP56)



Common type of submersible pump with power cord and float

- maintaining electrical equipment in a safe working condition, including regular inspection and maintainance
- ensuring the pump can be lifted and lowered out of the liquid without using the pump's power cord
- ensuring electrical work at the workplace is only undertaken by persons who have the appropriate electrical licence.

### Have safe work systems

Employers should ensure safe systems of work are in place, such as:

- » providing information, instruction, and training
- » turning off or unplugging and locking-out the pump before touching the liquid or equipment, as the pump may be live and only switched off by the float switch
- » conducting a visual inspection of the lead and pump for damage prior to reinstalling or using the pump

- » not using damaged or suspect equipment
- » reporting any electric shocks, damage or incidents promptly to the person in management control so the installation and equipment can be checked by an electrician
- » supervising the work to the extent necessary to ensure workers are working safely and without risks to health.
- » ensuring the pump frequency and voltage specification are suitable for Victoria's supply by checking the labelling on the pump, with the supplier, or with an electrician.

For specific electrical safety advice about the electrical installation at your workplace, engage a licenced electrician or electrical inspector.

To get RCDs fitted, contact a licensed electrician who must issue you a Certificate of Electrical Safety specifying the work done.

# E Cables remedial actions approved



Replace or remediate: Steps to keep E Cables cable within a safe operating temperature range have been approved by ESV for some situations.

By Sharon Rainsbury, Executive Manager Media and Communications

ESV has issued new advice regarding the mandatory recall on E Cables, outlining situations where it is safe to perform remediation rather than replacing affected cable.

ESV issued a mandatory recall of E Cables in December 2014 after testing showed that its copper clad aluminium cable with RE110 insulation was non-compliant.

The recall was based on concerns the insulation may soften if exposed to excessive temperature, allowing access to live parts if cable was subject to pressure or mechanical damage.

Subsequent testing showed that the cable does not present a safety risk if the operating temperature remains below 50 Degrees Celsius, so ESV has approved remediation actions that are designed to ensure the cable temperature remains at safe levels.

The cable does not need to be replaced if the remediation steps succeed in reducing the operating temperature to acceptable levels.

Since the recall was announced, E Cables has gone into liquidation and Hamilton Murphy has been appointed liquidator.

ESV recently sent a letter to consumers advising that contractors who installed E Cables should have been contacted by representatives of E Cables or Hamilton Murphy to explain the steps that need to be implemented to mitigate risks posed by this product.

Contractors should assess the cable operating conditions such as the maximum current demand and ambient temperature. Changes to the cable's circuit breaker protection may be required and all identified cable must be labelled at the relevant switchboard.

ESV also recommends that affected installations are inspected every six months by a licensed electrician as a precautionary measure. It is expected that this will become part of the installation's regular maintenance program.

There have been no reported E Cables incidents but ESV will continue to audit and inspect affected installations to ensure that the remediation action is successfully preserving the cable's integrity.

Por more information contact ESV's Electrical Equipment Safety Team on (03) 9203 9700

# Have your say on new wiring rules

Standards Australia is currently seeking public comment on proposed new Australian and New Zealand Wiring Rules, AS/NZS 3000:2007 Electrical Installations.

The draft standard is available for public comment through Standards Australia's website until June 20, 2016. It has been substantially updated with new definitions and changes for additional clarity.

Draft changes include:

- » a restructure of the "Safety Services" Clause in Section 7
- » a number of new definitions including "main switch", "arc fault detection device" and "combined outbuilding"
- » clarity on exclusion zones in wet areas and clearances around switchboards
- » new appendices providing guidance on:
  - > switch gear and control gear
  - > loss of supply
  - > electrical conduits
  - arc fault detection devices
  - electric vehicle socket outlets and charging stations
  - > D.C. circuit protection.

Standards Australia is interested in receiving feedback from consumers and individuals across industry who use and are affected by the wiring rules.

Following the nine-week public comment period, the committee will consider all comments in detail and, if necessary, further drafting will be undertaken.

All draft standards are available for review and comment via the Standards Australia website. Click here to go to the site and have your say on the proposed new wiring rules.



### Electrical news

# Deltaflex electric cable recalled

By David Eddy, Compliance Officer Equipment Safety

### A recall has been issued for Deltaflex electric cable due to concerns the product may cause electric shock or fires.

Eltech sold the cable directly to customers and wholesalers for specific orders. Affected cable is marked with manufacture dates between January 2011 (marked 01/2011) and February 2012 (marked 02/2012).

The affected product is flexible power cable, single core, insulated, sheathed and rated 110 degrees Celsius.

The product codes are VX240-10, VX300-110, VX400-110 marked. Affected batches are: S10611-4, S120711-1, S10811-6, S150811-8, S70911-9, S121011-8, S261011-2, S161111-2, S12112-13, S24212-7 and S29212-1.

The cable can develop cracks on the outer (orange) protective sheath at stress points.

The white cable insulation may also develop cracks that could expose the conductor. There is



Unsafe: An installation of Deltaflex electric cable with clearly visible cracks in the protective sheath that pose a risk of electric shock or fire.

a risk of electric shock or fire when conductors are exposed and accessible.

The cable was only installed in commercial buildings. A total of 43km of cable was sold and

21km has been remediated so far. Suppliers are contacting affected installers who should contact clients to make them aware that remediation works are required. ■

## Electrician fined for unsafe work

By Michelle Robertson, Senior Media and Communications Advisor

### An electrician has been fined \$4000 for doing dangerous wiring work at a rental home in Corio.

ESV prosecuted Samir Tadross in the Geelong Magistrates' Court after he performed unsafe work on the Harpur Road property in April.

ESV Solicitor John Murphy said Mr Tadross left a bare conductor exposed, putting the occupants at risk of electric shock. When they raised their concerns with Mr Tadross they were allegedly threatened and abused.

"The work performed by Mr Tadross failed to comply with Australian standards and put the safety of the occupants at risk," said Mr Murphy.

Magistrate John Lesser found Mr Tadross guilty of nine charges relating to installing unsafe wiring and providing misleading information to ESV.

In addition to the \$4000 fine he was ordered to pay \$2817.93 in costs. ■

### **NECA Roadshow rolls on**

Over the past two months ESV has participated in the 2016 NECA Tech-Advantage Roadshow, which has visited locations around the state including Bulleen, Dandenong, Taylors Lakes, Bendigo, Altona, Echuca and Shepparton.

Designed to provide a full industry experience, the Trade Show sees more than 20 exhibitors displaying a broad array of products and services. ESV's Greg Johnson is pictured addressing a group at the Dandenong event.



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### Electrical Q&A



# Your electrical questions answered!

Compiled by ESV's Electricity Technical Advisor, John Stolk

EnergySafe continues its regular series featuring some of the questions that ESV receives on a range of electricity installation issues, some of them relating to gas installations. Also provided are the answers together with references to the Acts, Standards, Regulations and Clauses that apply to them.

Question	Answer	Standard	Clause
What am I required to do when replacing an emergency or exit light with a different type of emergency or exit light? Clause 1.7 of AS/NZS 2293.1 requires the installation of a test switch that is very onerous. Is there an alternative method to comply?	Yes, as an alternative you can install a fitting that incorporates a self-test facility that self-tests at the intervals specified in AS/NZS 2293.2 and provides indication of the test results.	AS/NZS 2293.1	Clause 43.2.3
I am an electrician, but not a registered electrical contractor and would like to replace the electrical switchboard at my parent's home. Can I do the work?	Yes, work can be carried out by a licensed electrical worker (LEW) for no financial profit on a gratuitous basis on condition that prior to the commencement of the work the LEW advises the person for whom the work will be carried out that he or she is not a registered contractor and does not hold the prescribed insurance. The replacement of the main switchboard is prescribed electrical installation work and a mandatory inspection is required.	Electricity Safety Act 1998	Order in council—Victorian Government Gazette G17 April 1999
Can non-prescribed electrical work be included on a Prescribed Certificate of Electrical Safety?	Yes, only when the non-prescribed electrical installation work is completed at the same time as prescribed electrical installation work.	Electrical Safety Act 1998	45A(2)(a)
Am I required to issue a Certificate of Electrical Safety for minor repair work such as the replacement of a socket outlet or an architrave switch?	Yes, performing minor repairs is electrical installation work. The person who is responsible for the carrying out of electrical installation work must ensure that a Certificate of Electrical Safety is completed with respect to that work and in the required timeframe give the completed copy of the Certificate to the person for whom the work was carried out and provide a copy to Energy Safe Victoria.	Electricity Safety Act 1998	Section 45A (1)
When I install a cooking appliance am I required to install a switch for the cooking appliance? If I am, where should it be located?	Yes, a switch or isolation device is required for the following:  Electric cooking appliances  A circuit for a fixed or stationary electric cooking appliance having an open cooking surface incorporating electric heating, eg. a cooktop, deep fat fryer, barbecue griddle or similar, shall be provided with a switch, operating in all active conductors (this requirement does not apply to enclosed cooking appliances such as in-built ovens and microwave ovens). The switch shall be readily accessible and should be installed not further than two metres from the appliance and not installed in a position that the user has to reach over or across the open cooking surface. and should be marked to identify the appliance it controls. The electric cooking appliance can be connected: by a plug to an accessible socket outlet controlled by a switch in a readily accessible position; or directly (fixed wired) and controlled by a switch in a readily accessible position.	AS/NZS 3000:2007	Clause 4.7
	Combination gas and electric cooking appliances  Additional requirements for combined gas/electric cooking appliances incorporating both gas and electric open cooking surfaces—the switching device shall operate in all live (active and neutral) conductors.		
	Gas cooking appliances A gas cooking appliance connected to an electricity supply shall be provided with a means of electrical isolation that is adjacent to the appliance in an accessible location. The means of isolation can be: a plug connected into an accessible socket-outlet; or a plug connected into a switched socket-outlet that is installed in an inaccessible location. This inaccessible socket-outlet shall be controlled by a switch that is located in an accessible position and operates in all live (active and neutral) conductors.		
	Note: "Readily accessible" means within direct view and "accessible" means within the cupboard or behind drawers.		





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apprenticeships | traineeships | training

### Gas news

### Victorian plumbing industry seminars

By Enzo Alfonsetti, Manager, Type A Gas **Appliance Safety** 

The Victorian Building Authority and ESV recently hosted a series of plumbing industry seminars around the state.

Topics for discussion included:

- » plumbing standards
- » Plumbing Code of Australia 2016
- » changes to AS/NZS 5601 Gas Installations
- » ESV's new online application process
- » VBA accreditation applications
- » VBA complaints process.

#### AS/NZS5601 amendments

ESV's presentation concentrated on amendments to AS/NZS5601.1 Gas Installations: General Installations and AS/NZS5601.2 Gas Installations: LP Gas Installations in caravans and boats for non-propulsive purposes, which were published on 11 May.

Gas practitioners should visit the SAI Global website to access the amendments. Amendments can be downloaded for free, however, gas practitioners wanting the complete standards with amendments will have to purchase



ESV Gas Engineer Tyler Mason addressing attendees at a Melbourne CBD plumbing industry seminar

the standards from the SAI Global website. Firsttime users of the SAI Global Infostore must register by providing an email address and password.

#### GasTrac online services

Attendees were also advised that ESV's new online service for gas practitioners is coming.

ESVConnect will contain a facility known as GasTrac that will enable gas practitioners to submit and manage applications for Type B and Complex gas installations online.

In the coming months ESV will host a series of seminars for gas practitioners across Victoria with more information on ESVConnect and GasTrac.

### **Available from all Plumbing Suppliers**

HLP Controls Ph: 1800 500 160 Fax: 1800 827 160

### Carbon Monoxide gas is called "The Silent Killer"

- you need to be protected.

These CO meters are ideal for detecting gas around heaters, generators, fire places, etc including high temp areas.

### Models: 1372 & 7701:

- Hand held personal CO detectors suitable for checking CO levels in confined spaces, houses, factories and car parks.
- Low cost & they meet Australia Standards.

#### Model: GTF200 CO:

- Heavy duty, waterproof with aluminium case,
  - Suitable for permanent installation (eg: car parks,

- factories, etc).

### GTF200 CO



Model: 1372

7701



\*Call us about our large range of flammable gas detectors\*

Model:

### Model: 98098C:

- High performance CO detector,
- **HIGH TEMPERATURE** probe to check gas concentration in gas heaters, flu's, etc.
- Probe will measure in temps up to 200°C
- Use anywhere where high temp CO measurement is required,
- 2 microprocessor technology,
- Multi-display of gas concentration, temp & RH.

# Is that gas appliance approved?

By Tyler Mason, Gas Engineer

ESV is constantly coming across or receiving reports of uncertified gas appliances for sale and products already sold to customers.

This situation is concerning as such appliances are often found to be unsafe – and people are completely unaware!

New or second-hand gas appliances bought in a store or online must be certified as safe for use in Australia. It is an offence to sell appliances that are not certified to Australian standards and gasfitters will not install them.

This requirement exists in legislation to ensure that appliances are reviewed and tested for safety against the Australian Standard by an independent organisation before being supplied to consumers.

#### **Authorised certifying bodies**

There are now five organisations authorised by ESV to provide certification to a gas appliance. These bodies are all accredited by JAS-ANZ, and are audited by ESV every year:

- » The Australian Gas Association (AGA)
- » Global-Mark
- » IAPMO R&T Oceana
- » SAI Global
- » Vinac

The person selling an appliance is responsible for ensuring that the appliances they supply have been certified by one of these organisations.

#### Household appliances

In the case of common household

















Good to go: Examples of gas product certification marks from AGA, SAI Global, Global-Mark, Vipac and IAPMO-R&T OCEANA. All gas appliances must be certified for use in Australia.





appliances, the detail of a product's certification is included in the product's markings and can be checked against a national database, on the **Gas**Technical Regulators Committee website.

It is important to note that international certification schemes are not recognised in Australia. This includes the certification of appliances imported from Europe or North America. The primary reason is that standards are different because of different gas supplies and pressures in other parts of the world.

#### **Commercial appliances**

For individual commercial catering appliances, ESV has recently authorised a new certification

scheme operated by IAPMO R&T Oceana. This scheme allows for onsite testing and acceptance of a limited range of appliances. Since the termination of the Second Tier scheme several years ago, the only means of acceptance for individual appliances was to make an application to ESV. This often involved laboratory testing, and could not be conducted onsite.

?

For more information go to the <u>ESV website</u> or phone the Gas Technical Helpline on 1800 652 563

## New Careers in gasfitting brochure

By Michelle Robertson, Senior Media and Communications Advisor

### ESV has produced a new brochure to promote careers in gasfitting.

The A5 brochure provides an overview of types of work gasfitters do, training, licensing and specialised classes of work.

Gasfitting is a class of plumbing work that includes the construction, installation, servicing, repair and modification of any piping, appliances or fluing for the supply and use of gas.

In Victoria a gasfitter must be registered or

licensed with the Victorian Building Authority to legally carry out gasfitting work.

Gasfitter training is delivered by a number of TAFE colleges and registered training organisations around Victoria.

ESV works closely with these organisations to ensure that potential trainees are aware of the options, that they select the appropriate training and are aware of the licensing structure in Victoria.

Gasfitting also includes a number of specialised classes such as:

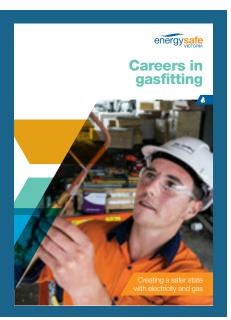
Type A appliance servicing

Type A appliance conversion work

Type B gasfitting

Type B gasfitting – advanced

The new brochure contains a list of registered training providers and can be downloaded from the ESV website by clicking here. To request hard copies of the brochure contact ESV via email.





Compiled by ESV's Gas Installations and Appliance Safety team.

As per previous issues of *Energysafe*, we are pleased to provide answers for a varied range of frequently asked questions received on ESV's Gas Technical Helpline, 1800 652 563.

**Note** The technical regulator may require notification before work commences and confirmation that completed work is in accordance with this Standard (AS 5601: 2013) and any other relevant requirements.

MANUAL SHUT OFF VALVES		
Question	Answer	Clause
Why is a manual shut-off valve	The operation of a manual shut-off valve allows a gas appliance or section	AS/NZS 5601:1:2013
required in a gas installation?	of consumer piping to be shut-off for repairs or replacement of consumer piping and gas appliances.	1.8.70 Manual shut-off valve
What are the selection criteria	When selecting a manual shut-off valve consideration shall be given to:	AS/NZS 5601:1:2013
for manual shut-off valves?	<ul><li>» materials</li><li>» pressure rating</li></ul>	4.8.1 Miscellaneous components
	<ul><li>» pressure drop</li><li>» service involved</li></ul>	4.8.2 Manual shut-off valves
	<ul><li>» emergency use</li><li>» reliability of operation.</li></ul>	
	A manual shut-off valve must be certified to AS 4617, Type 1 or Type 3.	
What are the characteristics of a manual shut-off valve?	What are the characteristics of a manual shut-off valve? A manual shut-off valve shall	AS/NZS 5601:1:2013
a manuai snut-off valve?	have the following characteristics:  » be of the quarter-turn type	4.8.2 Manual shut-off valves
	» be open when the handle is in line with the pipe and closed when the handle is across the pipe; and the seat of the handle and the spindle top are such that the	
	handle cannot be fitted in any other way  » be installed so that the valve cannot open under the action of gravity or vibration	
	» be capable of being connected to the inlet piping such that, when the outlet piping is disconnected, the valve will remain securely attached to the inlet piping.	
Which type of material shall	Manual shut-off valves constructed of plastic shall not be used above ground.	AS/NZS 5601:1:2013
not be used for manual shut- off valves in above ground situations?	These valves are also known as Type 3 valves (AS 4617).	4.8.2 Manual shut-off valves
What are the requirements	In the case of multiple occupancies within the same building manual shut-off valves	AS/NZS 5601:1:2013
for installing manual shut-off valves in buildings of multiple occupancy?	shall be:  » installed in the consumer piping to each occupancy shall be of a quarter turn type  » accessible and, where practicable, external to the occupancy	5.2.9 Occupancy isolation
	» provided with a durable, permanent sign, located in a prominent position adjacent to the valve, identifying it as a gas valve, and if remote from the occupancy identifying the occupancy.	
What are the requirements for	Where two or more gas commercial catering appliances (with a maximum of six	AS/NZS 5601:1:2013
installing a manual shut-off valve for combination cooking ranges?	appliances) are connected together to form a combination cooking range the gas supply pipe shall have a manual shut-off valve (which will shut off gas to all appliances) fitted in an accessible location.	6.10.2.1 Combination cooking ranges
When installing a manual shut-	Manual shut-off valves must be installed in all lateral branch pipes, as close as is	AS/NZS 5601:1:2013
off valve in a high-rise building what criteria must you follow?	practicable to the riser. A manual shut-off valve must also be installed at the gas entry point to each riser where there is more than one riser. These valves must be clearly identified and shall be installed in an accessible position.	5.7.4 Manual shut-off valve in riser and lateral
	A manual shut-off valve shall be installed for each tenancy, unless the valve for the lateral branch pipe already serves that purpose.	

### **Prosecutions and infringements**

## ESV has recently taken legal proceedings against the following individuals and companies.

- Mark Bailey, of Alfredton, unemployed, appeared in Ballarat Magistrates' Court charged with three counts of carrying out electrical contracting work when unregistered, two counts of employing an unlicensed person and failing to take precautions to prevent electric shock or injury in the handling of electric circuits. Bailey also failed to comply with a demand to supply information. He was convicted and fined \$12,500 along with \$1673 costs.
- Bailey Designed Engineering, a company formerly of Ballarat, was charged with the same offences as Mark Bailey and convicted and fined \$65,000.
- Nathan Ross of Ferntree Gully, REC and LEIW, appeared in Ringwood Magistrates' Court charged with carrying out electrical work that made a building unsafe, failing to have prescribed electrical work inspected and failing to carry out prescribed electrical testing as required. Ross was fined \$2500 without conviction and ordered to pay \$1770.28 costs.
- Wayne Wigg of Ararat, Plumber, appeared in Ararat Magistrates' Court charged with carrying out electrical work when not licensed and carrying out electrical work that made a building unsafe. Wigg was fined \$2000 without conviction plus \$1500 costs.
- Novica Saponja of Vermont, LEIW, was charged with offering to carry out electrical work when not registered, two counts of carrying out electrical contracting work when not registered, carrying out electrical installation work that did not comply with the Act and Regulations and failing to complete a COES. Saponja was convicted and fined \$3000 plus \$2693.52 costs.
- Michael Dilley of Carlingford NSW, LEIW, appeared in Geelong Magistrates' Court charged with carrying out electrical contracting work when not registered and failing to complete a COES. Dilley was convicted but the charges were dismissed under Section 76 of the Sentencing Act.
- Adam Wallison of Mt Martha, REC, appeared in Melbourne Magistrates' Court charged with giving information to ESV in a COES that was misleading and failing to have prescribed electrical installation work inspected. Wallison was convicted and fined \$10,000 plus \$1666 costs.
- Vincent Fiumara of Forrest Hill, LEIW, appeared before Heidelberg Magistrates' Court charged with carrying out electrical installation work that did not comply with the Act and Regulations. Fiumara was also charged with signing a compliance certificate that did not have all required details entered. He was released on an undertaking to be of good behaviour for six monhths.

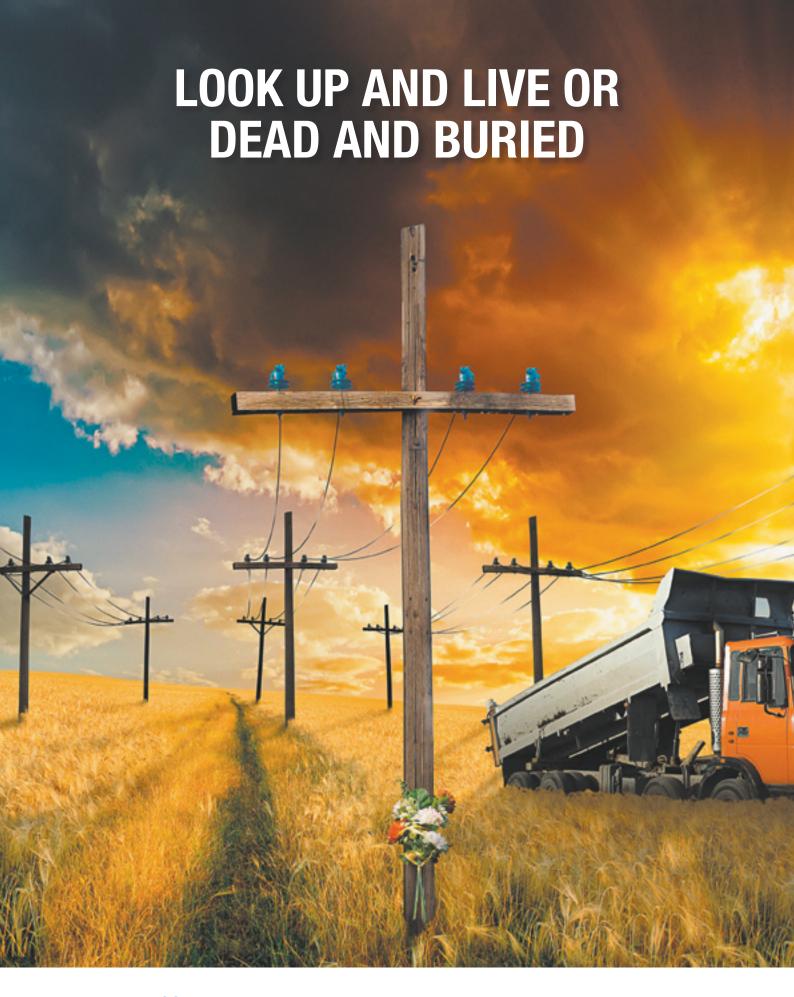
### Infringement notice summary

Infringement notices
2016
Types of infringement notices issued

Total 4 11 14 2 10 0 4 8 15 5 7 80				Aug 15									Total
	Total	4	11	14	2	10	0	4	8	15	5	7	80

	REC LEW Other	Offence code	Offence	Penalty
Feb 16	LEW	6219	Non-complying installation work	\$758
	LEW	6219	Non-complying installation work	\$758
	LEW	6228	Fail to complete certificate within time	\$152
	LEW	6229	Fail to give certificate within time	\$152
	LEW	6242	Fails to give certificate within time	\$152
	OTHER	6242	Fails to give certificate within time	\$152
	LEW	6243	Fails to lodge copy with the Office	\$152
	LEW	6243	Fails to lodge copy with the Office	\$152
	OTHER	6243	Fails to lodge copy with the Office	\$152
	OTHER	3592	Unauthorised uncover or expose gas pipe	\$303
	OTHER	3593	Unauthorised uncover or expose gas pipe	\$1517
	LEI	1504	Fails to notify defects	\$303
	LEI	1504	Fails to notify defects	\$303
	LEI	1504	Fails to notify defects	\$303
	LEI	1504	Fails to notify defects	\$303
Mar 16	LEW	6228	Fail to complete certificate within time	\$152
	REC	6233	Fail to have connected work inspected	\$607
	REC	6242	Fails to give certificate within time	\$152
	REC	6242	Fails to give certificate within time	\$152
	OTHER	6243	Fails to lodge copy with the Office	\$152
Apr 16	REC	6227	Fail to disconnect equipment from supply	\$607
	LEW	6225	Fail to remove unsafe equipment	\$607
	REC	6233	Fail to have connected work inspected	\$590
	REC	6233	Fail to have connected work inspected	\$607
	REC	6242	Fails to give certificate within time	\$152
	LEW	6402	Person comes too close to aerial line	\$303
	LEI	1504	Fails to notify defects	\$303

- Lilvin Electrics Pty Ltd of Forrest Hill, REC, appeared before Heidelberg Magistrates' Court charged with permitting a person to carry out electrical installation work that did not comply with the Act and Regulations. The company also failed to provide a COES to ESV. It was released on an undertaking to be of good behaviour for six months and ordered to make a payment of \$300 to the court fund along with \$1200 costs.
- Justin Waldie of Toolern Vale, unlicensed, appeared in Broadmeadows Magistrates' Court charged with offering to carry out electrical contracting work when not registered, carrying out electrical contracting work when not registered and carrying out plumbing work when not licensed or registered. He was fined \$5000 without conviction.
- » Bradley Yarwood of Ballarat, LEIW, appeared in Ballarat Magistrates' Court charged with six counts of installing unsafe electrical equipment, nine counts of carrying out electrical installation work that did not comply with the Act and Regulations; failing to complete a COES and failing to describe all of the work carried out on a Certificate of Compliance. Yarwood was fined \$1250 without conviction and ordered to pay \$2000 costs.
- Yarwood (Ballarat) Pty Ltd, LEIW, was charged with the same offences as Bradley Yarwood. The company was fined \$12,500 with conviction and a further order that the directors of the company be jointly and severally liable for the fine.



### **REMEMBER LOOK UP AND LIVE**

Stay outside the 3 metre "no go zone" around, and above, power lines. Or you could end up 6 feet under. For further information visit Energy Safe Victoria www.esv.vic.gov.au or call 03 9203 9700.





