

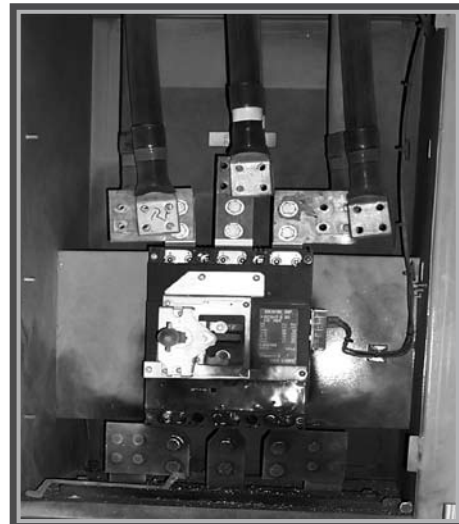


Electricity Industry Bulletin No: 62 September 2006

FOR THE ATTENTION OF ALL ELECTRICAL WORKERS

1. LUCKY TO BE ALIVE

Recently an experienced electrician was seriously injured as a result of a short circuit in a switchboard. The worker was in the process of disconnecting de-energised sub-mains from an 800amp circuit breaker with the line side of the breaker still live. What actually initiated the short on the line side of the breaker is still a mystery at this stage. The damage to the switchboard and injuries sustained were extensive. With the switchboard in close proximity to the substation and mains consisting of three 630mm² cables per phase, the estimated fault level at the point of the short circuit would have been close to 38,000 amps. The resultant explosion caused the worker's jumper and shirt to ignite. The severe burns to his hand and chest required skin grafts. Not to mention the cost of repairs.



All too often we hear of incidents such as this and we think 'it won't happen to me' and so we push the boundaries of safety. It only takes a minor slip to create such a major incident, where in this case, the worker is lucky to be alive.

Please, Please ensure that in the first instance you isolate all associated and nearby live parts. If there is absolutely no alternative why certain parts cannot be isolated, then take all appropriate precautions to eliminate (not just reduce) potential risks. For further information in this regard refer to AS/NZS 4836 *Safe Working on low-voltage Electrical installations*.

2. UNAPPROVED SOCKET OUTLETS (HPM LOOK ALIKE)

Investigations carried out by the Energy Safety Unit of the New South Wales Office of Fair Trading have revealed that there is a large number of look-alike HPM branded XL777 socket outlets currently in the market place.

The internal differences between these socket outlets and genuine HPM socket outlets are significant.

The differences are sufficient enough to identify the look-alike socket outlets as unapproved. There are a number of quality issues associated with the unapproved socket outlets, the most significant being the switch mechanisms breaking down with minimal use. Testing shows this could happen with as little as three switching operations resulting in the dolly on the switch mechanism falling out and exposing live parts.

The main difference that is most distinguishable is that the word "Made" is missing from the sentence "Made in Australia" located below the cable terminal tunnels.

Electricity Standards *and* Safety advises electrical contractors and electricians to be cautious if offered HPM socket outlets from a person who is not your normal supplier.



3. EXPOSED LIVE PARTS

Electricity Standards *and* Safety together with Aurora Energy have investigated two incidents where persons, presumably electrical workers, left exposed live parts.

The first incident was in an office block located in Victoria Street, Hobart. Someone using a hole saw had drilled a number of holes into the back of a metal distribution board.

This action resulted in the drill bit penetrating the insulation on the sub mains within the wall cavity and exposing live conductors. The sub mains were then left in this condition creating a serious hazard which resulted in an electrician working on the distribution board receiving a serious electric shock when he came in contact with the exposed live parts.

The second incident involved live exposed wires left just inside the manhole access in the foyer of the Commonwealth Office building Collins Street, Hobart.

The TPS power cable was stripped back exposing copper conductors and was left energised. A first year electrical apprentice brushed against the conductors and received an electric shock.

Please be vigilant in the workplace and take time to identify any hazards that maybe present and take the appropriate action.

If investigations by Electricity Standards *and* Safety reveal persons responsible for leaving exposed live cables, then prosecution will be considered.

4. FOLLOW MANUFACTURERS INSTRUCTIONS

As part of an appliance recall, an electrical contractor was engaged by a manufacturing company to perform adjustments on bathroom heat-fan-light units that had been installed in numerous installations by others.

It became evident to the contractor that on many occasions errors had been made by the previous installers who did not follow the manufacturers wiring diagram.

The wiring diagram for these particular units required the fan to run when two or more heat lamps were operated. This was not adhered to and subsequently the heat lamps could operate without the fan, significantly reducing the cooling effect on the lamps and lampholders.

These instances created potentially unsafe situations that could have caused fires and had serious ramifications. Following manufacturers instructions is a requirement of the Wiring Rules and failure to do so may not only prompt a Notice of Defective Installation (NDI) but also exposes the contractor and/ or worker to civil litigation.

5. COUNCIL OF AUSTRALIAN GOVERNMENTS (COAG) DECISION ON MUTUAL RECOGNITION OF LICENSED VOCATIONALLY TRAINED OCCUPATIONS

The COAG Skills Recognition Taskforce headed up by a Prime Minister and Cabinet (PM&C) officer, is facilitating the implementation of the COAG decision of 10 February 2006 to achieve full and effective mutual recognition of vocationally trained licensed occupations across all States and Territories.

Action Groups, which include regulators and representatives from industry, are covering the six priority occupations: general electricians, general plumbers; motor mechanics; refrigeration and air-conditioning mechanics, carpenters and joiners; and bricklayers. The Action Groups report to the COAG Skills Recognition Steering Committee, which is comprised of representatives from First Minister's Departments and chaired by Prime Minister & Cabinet.

The COAG Skills Recognition Steering Committee agreed at its meeting on 19 July 2006 to a proposal for updated mutual recognition arrangements making use of the power provided to ministers under Section 32 of the Mutual Recognition Act 1992 to declare occupations to be equivalent.

Action Groups are currently preparing the following documentation in support of Ministerial Declarations:

- The titles of legislation, regulations and occupational licences;
- Nationally agreed scopes of work;
- Mapping of jurisdictional licences to scopes of work: and
- A mutual recognition matrix.

The Electrical, Air Conditioning and Refrigeration Mechanics Action Group has agreed that electrical contractor licences which in many jurisdictions embrace a high level of business skills, in addition to occupational requirements, will be considered in stage 2 of the COAG mutual recognition process.

Once Action Groups have cleared all the documentation for the occupations subject to the Ministerial Declarations, jurisdictions will then "sign off". Regulators will pass the documentation to the responsible authority within their jurisdictions to ensure commitment to the mutual recognition of licences shown on the matrix, which will form the basis of the Ministerial Declarations.

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Assessment of Overseas Skills

To further assist in meeting skills shortages, COAG has agreed to new arrangements to make it easier for migrants with skills to Australian standards, to work as soon as they reach Australia. It does not involve any change to the migration policy.

A new streamlined and robust off-shore skills assessment process, to Australian standards, will be put in place in the five main source countries for our skilled migrants by December 2008, initially for skills shortage trades and later for other occupations in the skilled migration program. The overseas assessments will be conducted under the auspices of Trades Recognition Australia (TRA) by accredited organisations or individuals with a proven record in delivering high-quality skills assessments. TRA will be resourced to guarantee the quality of assessments and protect Australian standards.

This will be mirrored by a parallel on-shore assessment arrangement for those who are living in Australia and want skills achieved overseas recognized, linked to provisional licensing so that people with recognised overseas qualifications can work under supervision for short periods, while they complete licensing requirements.

For electricians the minimum standard required for the assessment of overseas skills has been agreed as the Certificate III. It has been noted, however, that in most instances, electricians trained overseas will require gap training in order to develop competency in Australian conditions, including areas such as wiring and occupational health and safety. For air-conditioning and refrigeration mechanics, the Action Group is currently considering the minimum skill level required for overseas workers.

6. TWO LINWORKERS PROSECUTED

Barry Phillip Golding and Shane Anderson Matthew Hayers, were each fined \$750 (plus \$43.32) court costs in the Hobart Magistrates Court on 20 September 2006.



This is the first known prosecution of lineworkers for carrying out unlicensed electrical work in Tasmania contrary to section 19 of the *Electricity Industry Safety and Administration Act 1997*.

The incident took place at Westerway Primary School on 2 October 2004.

Work is proceeding on the implementation of the *Occupational Licensing Act 2005*.

Workplace Standards Tasmania has released for consultation the draft Occupational Licensing (Notification of Electrical Work) Regulations. These regulations will replace the current notification requirements in the outdated Hydro-Electric Commission (Service and Installation) By-laws 1993 and the Hydro-Electric Commission By-laws 1994. The draft regulations provide for the notification and recording of electrical work; rectification of defective electrical work; certification of electrical work; and restrictions on energising electrical work. Although the closing date for comment is Friday 6th October, if you are quick, late submissions will be considered. Please contact the Project Manager, Marilyn Marshall, on (03) 6233 7699 or marilyn.marshall@justice.tas.gov.au if you have difficulties meeting this deadline.

While comments are being sought from the electrical industry, the plumbing and gasfitting industries are also welcome to provide comments on these regulations. There are already existing notification requirements for gasfitters through the *Gas Act 2000* and the *Dangerous Goods Act 1998*, and for plumbers and Council Permit Authorities under the *Building Act 2000*, through the Council plumbing permit process. It is proposed that notification requirements for plumbers and gasfitters under the Act will reference existing legislation and will not be inconsistent with those contained in the electrical notification regulations.

If you would like to access a copy of the draft Occupational Licensing (Notification of Electrical Work) Regulations, go to the Workplace Standards Tasmania website at www.wst.tas.gov.au and click the link.

Work is also proceeding on the licensing and general provisions for the regulations and it is expected that these will be ready for consultation shortly. A staged implementation of the Act is envisaged, and it is planned that the electrical regulations will be ready for commencement from 1 January 2007 or thereabouts. It is not known at this stage when the plumbing and gasfitting regulations will be finalised.

If you would like to access a copy of the *Occupational Licensing Act 2005*, go to www.thelaw.tas.gov.au. Choose the advanced search option, search for documents containing the word 'occupational licensing' and tick the 'Acts' and 'sessional' boxes.

8. ELECTRICIAN'S BEWARE

A recent incident of electric shock could have been avoided.

This is almost a case of strange but true. In this instance an electrical contractor received a call from a puzzled home owner saying members of the household were receiving electric shocks when they opened one of the doors in the home but only sometimes.

On investigation, the contractor found the door handle and latch mechanism were live but only when the door was closed and only when the light switch was turned on. Extra long screws had been used to fix the latch striker plate to the door jamb and one of these screws had penetrated the sheath of the cable to a light switch mounted on the adjacent architrave at the same height and contacted the switched conductor, so the door handle was live only when the door was shut and the switch turned on.

So how could this be avoided? While it's true to say the extra long screws were the direct cause, indirectly the location of the light switch and associated cable also contributed to the cause. It may not always be the electrician's fault but they are the ones that know what can happen in situations like this, builders should also know.

The one that doesn't know is the home handyman, who is often the one that changes the lock. Door latch mechanisms and handles are usually fitted at a set height. Had the light switch been installed at a different height to the door striker plate or had the cable been routed differently, the contact with the cable would have been avoided.



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(as pictured below)



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MIRABELLA CONNECT POWERBOARDS

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SONY BATTERIES SOLD FOR USE WITH SOME DELL NOTEBOOK COMPUTERS

RECHARGEABLE LITHIUM-ION BATTERIES MANUFACTURED BY SONY FOR APPLE 12-INCH AND 15-INCH ALUMINIUM POWERBOOK G4 AND APPLE 12-INCH IBOOK COMPUTERS (BATTERY PACKS)

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For further recalls and precise product information, defect details and consumer action, visit the Product Recalls Australia website at www.recalls.gov.au



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