



## Electricity Industry Bulletin No: 38 March 2000

### **ATTENTION COMPANY MANAGERS**

**Please ensure your nominated manager and electricians see this circular.**

### **1. AS/NZS 3000-2000 The Wiring Rules - Seminars**

#### **A must for all Electricians and Contractors!**

Please read the enclosed brochure which includes registration form and all the information you need regarding these very important seminars.

O'Hara's Resort, Launceston, Thursday 16 March and  
Hadley's Hotel, Hobart, Friday 17 March.

For further details phone Standards Professional Services on (03) 6224 2380.

**Failure to attend may mean "you're living in the nineties".**

### **2. AS/NZS 3000-2000 Course**

In addition to the March seminars, a national training program (short course) has been developed in conjunction with the Tasmanian Electrotechnology and Utilities Industry Training Board (TEUITB) and will be delivered by TAFE in the near future. The course should not exceed 10 hours and will most probably be delivered over 3 or 4 sessions.

The course will include a small component of AS/NZS 3008.1.1 (Selection of cables) now that the former appendix 'B' cable information (AS 3000 1991) has been deleted.

Electricians can no longer survive without AS/NZS 3008.1.1 either.

The TEUITB is in the process of obtaining limited funding for this course via the Building & Construction Training levy, so get in early.

Contact Burnie, Launceston or Hobart TAFE and ENROL NOW.

### **3. Extra Copies of the Bulletin for your staff**

We have received requests from some contractors, who employ numerous electricians, to provide extra copies of the bulletin and enable them to save on large quantities of photocopying.

If you feel your business is in this position, just give us a call.

The last 4 issues are on the website. Soon it will include an index of all articles and archived issues.

## 4. Relocatable Dwellings – Electrical Standards And Imperial Cables

Legislation in all Australian electrical licensing jurisdictions, requires compliance with AS/NZS 3000-2000 (mandatory from 1 June 2000).

The standard sets down requirements for new electrical installations as well as alterations and additions to existing installations. Clause 1.5 Alterations, Additions and Repairs states:

*‘Every alteration of, or addition to, an existing electrical installation shall be deemed to be a new electrical installation, and all relevant provisions of this standard shall apply to such alteration or addition.’*

When a dwelling is relocated and connected to a new electricity supply, it is expected that the electrical installation will serve the building for a considerable length of time. The same applies to an extension or additions to an existing dwelling. Councils have many similar requirements.

Imperial cables do not comply with the current requirements of AS/NZS 3000. In general, where imperial cables have been used in existing dwellings, they may continue to be used while no alterations or additions are made to the parts of the installation that use the imperial cables.

However, any change, such as an addition or relocation would mean the installation does not meet current requirements and therefore the relevant parts must be made to comply.

It is not only the cables but also the switchboard, earthing and fittings that may need upgrading.

Imperial cables ceased to be used in electrical installations from the mid 1970’s. At the time of manufacture they were considered to have a life span of some 40 years. Earlier cables used lead, cotton and then rubber sheathing. These cables are beyond their life expectancy and now should be replaced immediately, regardless of the situation. Later imperial cables were PVC insulated and sheathed.

Insulation and/or sheathing of the PVC cables have been found to harden with resultant cracks, leaching of plasticiser, green exudate (a green substance that leaches out of some varieties of PVC) and general aging.

Imperial cables also:

- Are smaller in cross sectional area and carry less current.
- Have earth conductors without inner single insulation.

Metric cables were generally increased in size to accommodate derating. eg. for domestic ceiling space insulation.

## 5. Fire proofing

When making a determination on rules and regulations, the best approach is always to err on the side of safety.

### Example:

When does an alteration to a switchboard or wiring behind meter panels require that the fire proofing be upgraded to current standards?

Firstly consideration must be given as to the affect that any changes made will have on the safety of the installation.

If a mains load limiting device is being fitted to a meter panel, then normally there would be no changes required behind the panel and consequentially no perceived increase in risk. However, an opportunity has arisen to make the installation safer and fire proofing would be recommended.

It may be decided that there is an increased risk because the mains are likely to be carrying more load (closer to the cable limits) or less risk because there is now a device installed that will more accurately monitor and protect the cable from overload.

The correct answer is, in the time taken to decide either way, the fire proofing would be complete (and the installation far safer).

The new AS/NZS 3000 gives you more options and less definitive statements about installations. Don’t think of ways around compliance with the rules, **THINK SAFETY**, and use rules and regulations as **the minimum** standard **not the maximum**.

If you are still unsure, call your local Aurora Energy Installation Inspector.

## 6. Working on Electrical Switchboards

This office has recently investigated six incidents of electrical technicians having received electric shocks, while carrying out electrical work on switchboards. All of these incidents could have been prevented if precautions had been taken.

Every effort must be made to isolate a switchboard from the supply prior to carrying out alterations. In certain commercial installations it may not be possible to isolate the entire switchboard.

Where a person undertakes partial isolation of the board, it is their responsibility to carry out tests to verify the correct sections are isolated, the placement of out of service tags and to notify others involved of what areas are safe. Be aware also of ancillary equipment on switchboards, such as panel mounted pilot lamps and meters as it is common for these to have exposed live terminals behind the hinged panel. The installation of barriers to provide additional protection from live parts is recommended.

These recent accidents occurred because adequate precautions were not taken. Some of the above persons may not return to work in the electrical trade because of the injuries sustained.

All of these incidents could have resulted in a fatality.

**Web site updates**

<http://www.wsa.tas.gov.au/ess/electric.htm>

These new publications have been added to our web site for your information:

1. Code of Practice.  
(Retailers of electrical installation products)
2. Electrical Licensing Board  
Annual Report 1998/99.
3. Regulator's Disciplinary Panels  
(Electrical Licensing Disciplinary  
Panels) Annual Report 1998/99.

## 7. Movable Premises Stickers

The electrical installations of caravans, mobile homes etc are deemed to be "electrical work" and must comply with AS/NZS 3000 and AS 3001. An electrical contractor may certify compliance by completing stickers now supplied by this office on request. There is no current mandatory requirement for this sticker by this office, however the Transport Division will require siting of this certification prior to inspection in relation to registration. If fitted, the sticker would be best positioned adjacent the main control circuit breaker.

Stickers are currently supplied at no cost and only to licensed electrical contractors on request. Notices are still required to be submitted to Aurora Energy.

## 8. Under Tile Electric Heating

It has recently come to our attention that tilers and possibly other building trades are installing electric heating systems within the screed, under tiled flooring.

This practice is considered to be "electrical work" as defined in the *Electricity Industry Safety and Administration Act 1997* (the Act). Only those persons defined in the Act may undertake electrical work.

Letters have been sent to all tilers listed in the Yellow Pages and suppliers known to us, so that they are now aware of this requirement.

If you are called upon to connect this type of installation make sure you consider your responsibilities when you make that final connection or sign off that installation notice.

**ASSUME NOTHING,  
TEST EVERYTHING**

# Licensing Talk

## 9. Licensing Brochure

We have included with this bulletin a brochure outlining Electrical Licensing in Tasmania. Inside you will find useful information for those who wish to apply for a new licence and also information for existing licensed persons and businesses. Keep in your files for reference.

## 10. What's in a "name"

Those who are looking at changing their business name should be aware that such a change may put their insurance period out of step with the new licence period. It may be prudent (although not always possible) to wait until renewal time to organise the name change. This would also be the opportune time to align your insurance period.

Some are still a little confused as to what alphabetical letter of their business name determines the commencement date of the licence period. The interpretation of a "name" as stated in the regulation is as follows :

"name" does not include-

- (a) a forename or the initial letter or an abbreviation of a forename; or
- (b) the definite or indefinite article;

Example:

J B Electrical Pty Ltd is issued under "E" for Electrical  
Joe Bloggs Electrical is issued under "B" for Bloggs  
Bloggs Electrical is issued under "B" for Bloggs

The licensing database that is programmed to issue renewals complies with the regulations as above. If you're still confused, give us a call.

## 11. Renewals on time or pay the price

There are still electricians and contractors who are failing to renew their licences on time. Occasionally an applicant may state that nothing was received, even though the renewal application forms are mailed to the addresses printed directly from the licensing database. Either way, the bottom line is that the responsibility rests with you to ensure you are licensed and that we have your correct address. If you are unsure when your renewal is due or believe that you should have received it, give us a call. If nominated managers fail to renew their electricians' licence then the associated electrical contractors licence will also be cancelled.

Accurate records of your employees licence details must be kept to ensure compliance with Sec 21 of the *Electricity Industry Safety and Administration Act 1997* (register of electrical workers). This also ensures that the electrical contractor is not in breach of Sec 20 (those who may perform "electrical work" on behalf the contractor).

## 12. Don't sign a blank cheque

There are concerns that licensed persons are signing "blank" electrical installation notices (EIN's) before jobs are complete, not inspecting the work and then lodging the paper with Aurora.

We are not in an industry where unsafe work practices can be tolerated. EIN's are not to be signed off as complete unless the job has been satisfactorily completed/tested and the EIN fully filled in, including test results.

**LET'S KEEP  
TASMANIA SAFE.**

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