Issue No. 29
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electrical focus

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New policy framework for restricted electrical licences

WA has for many years had in place a "restricted electrical licensing (REL) system" to allow appropriately trained persons to safely perform relatively simple, low risk and often repetitive electrical work that does not warrant the skills of a fully qualified electrician.

The policy previously used to determine restricted electrical licence eligibility was introduced into WA during 1991 and remained largely unaltered despite changes in industry needs, work practices and consumer expectations. As a result, a review was carried out and a paper proposing improvements was widely issued to industry early in 2003. The outcome of this consultation work has been the implementation of a number of significant improvements to the existing REL policy framework, now referred to as the "2003 REL Policy".

The key elements of this new policy are:

- The REL continues to exclude any electrical installing work, which requires a full licence.
- Only safety related issues (such as competency) will in future be considered by the Electrical Licensing Board, when assessing applications.
- There are now eight licence types:
  - Plug and Cord Connected Equipment Licence
  - Domestic Appliances Licence (includes stoves)
  - Disconnect and Reconnect Licence (eg. for equipment such as motors rated up to 22 kw)
  - Disconnect and Reconnect Plus Appliances Licence
  - Plumbing Workers Licence
  - Plumbing and Gasfitting Workers Licence
  - Refrigeration and Airconditioning Mechanics Licence
  - Instrument Process Control Technicians Licence
- The allowable voltage range of the electrical work has been increased to 1,000 volts in line with the revised definition of low voltage (LV).
- Licence holders can apply to have their existing Units of Competence (now known as 'allowable scope of work') listed against additional Work Area Categories, after gaining verified experience in the latter, under supervision.

The new policy framework came into effect on 22 July 2003. A summary of this new policy is available from Energy Safety's website.

Changes to electrical contractor licensing policy

Effective from 15 July 2003, the Electrical Licensing Board endorsed changes to the policy governing the licensing of electrical contractors from interstate, to ensure that licences are only issued to operatives who have current knowledge of the relevant rules and regulations in force in Western Australia.

Prior to that, to gain a WA licence, electrical contractors from another State or Territory simply had to provide a copy of their current licence, evidence of public liability insurance and registration details of their business name.

The policy has now been amended to include a requirement for the applicant, whether a sole trader or a person nominated by a firm or body corporate, to demonstrate knowledge of the *WA Electrical Requirements* and the *Electricity (Licensing) Regulations 1991.*

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Applicants can achieve this by successfully completing the two modules of the Electrical Contractor Training Program applicable to nominees, "Electrical Requirements" and "Operational Legislative Requirements". A recognition of prior learning process is also available where appropriate.

This amended policy ensures that persons trained and experienced in another State or Territory of Australia will have knowledge of key WA regulatory and safety requirements.

This amended policy will also apply to persons whose EC licence has lapsed for more than two years. If the licence has lapsed for more than five years, the complete Electrical Contractor Training Program (4 modules) will need to be completed before the Board will consider restoring a licence.

Licence holders who have chosen to put their licence on hold prior to the effective date of this policy change are exempt from these requirements and will be covered under previous policy requirements.

Introduction of capstone assessment for electrician licensing

Consistent with the national policy for electrician training and licensing, the Electrical Licensing Board has adopted the Capstone Assessment Test. This follows some close collaboration between the Department of Education & Training and Energy Safety.

Apprentices will in future undergo a Capstone Assessment near the end of their training, to confirm that they satisfy specific training outcome requirements, so as to be able to obtain an electrical licence without further examination, upon completion of the apprenticeship.

This new policy applies to all apprentices who commenced and were registered in the following qualifications from 1 July 2001:

- Certificate III in Engineering (Electrical/Electronic)
- Certificate III in Electrotechnology (Systems Electrician)

The Capstone Assessment covers 32 of the 66 essential performance capabilities and includes a practical demonstration of skills as well as an assessment of underpinning knowledge.

The requirement to successfully complete the assessment will commence on 1 January 2004. The Capstone Assessment will be carried out by registered training organisations.

Wiring Rules – Frequently Asked Questions

Standards Australia recently added to its list of FAQs (frequently asked questions).

Two of the FAQs in particular are common areas of concern in WA and they have been reproduced here for information.

Electrical contractors and their electrician employees should make regular visits to the FAQs website at www.wiringrules.com.au and acquaint themselves with this important information.

FAQ 049/2002: AS/NZS 3000:2000 – Clause 1.5

CLAUSE 1.5 ALTERATIONS, ADDITIONS AND REPAIRS

Question 049/2002. When an addition is made to a circuit protected by a semi-enclosed rewireable fuse, under what conditions should the semi-enclosed rewireable fuse or its fuse element be replaced?

Answer.

(a) Short-circuit protection
The semi-enclosed rewireable fuse should be replaced by another type of protective device when the prospective short-circuit current is greater than 1 kA (eg. change in distribution network).

(b) Overload current protection
The semi-enclosed rewireable fuse or the fuse element should be replaced when the current rating is greater than 69% of Iz (the continuous current-carrying capacity of the cable).

FAQ 050/2002: AS/NZS 3000:2000 – Clause 1.5, Clause 2.4.3.2 and Clause 3.4

CLAUSE 1.5 ALTERATIONS, ADDITIONS AND REPAIRS

CLAUSE 2.4.3.2 DEVICES FOR PROTECTION AGAINST OVERCURRENT – Protection against overload current-Coordination between conductors and protective devices

CLAUSE 3.4 CURRENT-CARRYING CAPACITY

Question 050/2002. IMPERIAL CABLES What ratings of circuit-breakers and semi-enclosed rewireable fuses may be used to provide protection against overload in accordance with Clause 2.4.3.2 for imperial cables?

Answer. The ratings provided in the Table on page 3 [of this Electrical Focus] may be used for electrical installations under the conditions shown.

NOTE: The ratings are based on an ambient temperature of 40°C using a comparison of the cross sectional area of the imperial conductor to the cross-sectional area of the nearest metric conductor.

Hazardous Areas Electrical 2003 seminar and trade exhibition

The Electrical Panel of the WA Division of Engineers Australia is conducting a hazardous area seminar and trade exhibition on 6 & 7 November 2003 at the Sheraton Perth Hotel.

Hazardous areas are those where combustible gases, vapours and dusts occur in dangerous quantities requiring electrical equipment located in these areas to be designed, installed and maintained to prevent explosions.

In recent years, there has been a rapid increase in WA in the number projects incorporating hazardous areas. This is occurring against a background of changing standards, advances in technologies, innovative management systems, variable workplace competencies and equipment manufactured from increasingly diverse countries.

Local and interstate speakers will present papers on hazardous area classifications and design, best practice implementation, management, risk assessment, competency standards and instrumentation. These papers, together with a number of practical workshop sessions, will provide delegates with the latest information on hazardous areas.

In conjunction with the seminar program, major suppliers of hazardous area equipment will exhibit their products, including instrumentation, gas detection, lighting, communications and personnel protection equipment.

The seminar will be of value to electrical engineers and designers, electrical supervisors, process plant engineers and technicians, tradespersons working in hazardous areas and instrument supervisors.

Persons interested in attending this seminar should contact the WA Division of Engineers Australia for further information.

Contact arrangements are:
Telephone (09) 9321 3340
Fax (09) 9481 4332
Email MAngell@ieaust.org.au

Energy Safety is a key sponsor of this event.

Disciplinary action taken by the Electrical Licensing Board

1 May 2003 to 31 July 2003

The Electrical Licensing Board dealt with four operatives during this period.

Competency Assessments

The following operatives were required to complete a competency assessment and failed:

Carl Blowers (EW 121793)
Simrat Singh (EW 133294)
Laurence Zani
(EW 101438/EC 001585)
Graeme Kilburn
(EW 103073/EC 000232)

The Electrical Licensing Board suspended the above operatives' electrical workers licences until they can demonstrate their competence.

Mr Zani is the only nominated worker for electrical contractor number EC 001585 and Mr Kilburn is the only nominated worker for electrical contractor number EC 000232. These electrical contractor licences were also suspended, as both operatives were no longer eligible to be nominees.

Since these actions were taken, Mr Zani has arranged the appointment of a new nominee for Laurie's Electric City Pty Ltd and Mr Kilburn has appointed a new nominee for Attadale Electrical Service. Therefore, both electrical contractor licences have since been restored.

PROTECTIVE DEVICE RATING

2-core sheathed cable		*V 75 insulation A*		*V 60 insulation A*	
Size	*Installation method*	*CB*	*Fuse**	*CB*	*Fuse**
1/044	*Unenclosed*	*13*	*10*	*10*	*8*
	Partially surrounded	*10*	*8*	*8*	*6*
3/029	*Unenclosed*	*16*	*12*	*13*	*10*
	Partially surrounded	*13*	*8*	*10*	*6*
3/036	*Unenclosed*	*20*	*16*	*16*	*10*
	Partially surrounded	*16*	*10*	*10*	*8*
1/064	*Unenclosed*	*20*	*16*	*16*	*12*
	Partially surrounded	*16*	*10*	*13*	*8*
7/029	*Unenclosed*	*32*	*20*	*25*	*16*
	Partially surrounded	*20*	*16*	*16*	*12*
7/036	*Unenclosed*	*40*	*25*	*32*	*20*
	Partially surrounded	*25*	*20*	*20*	*16*
7/044	*Unenclosed*	*50*	*32*	*40*	*25*
	Partially surrounded	*32*	*25*	*25*	*20*

** Semi-enclosed rewireable fuse*

PROSECUTIONS FOR BREACHES OF THE *ELECTRICITY (LICENSING) REGULATIONS 1991* AND *ELECTRICITY ACT 1945*

1 May 2003 to 31 July 2003

Breach	Name (and suburb of residence at time of offence)	Licence No.	Fine & Court Cost ($)
Carried out electrical work without holding an electrical workers licence Regulation 19(1) E(L)R	William Alexander (Greenwood)	EW 107248	Fine 500.00 Costs 277.70*
	Ronald Archer (Mt Nasura)	EW 125537	527.70
	Steven Coyne (Katanning)	EW 140635	1,087.70
	Leslie Malcolm Thistleton (Scarborough)	NLH	603.85
	Malcolm Wilson (Mindarie)	EW 111412	1,027.70
Carried on business as an electrical contractor without a licence Regulation 33(1) E(L)R	William Alexander (Greenwood)	EW 107248	Fine 250.00 Costs*
	Peter Magal (Craigie)	EW 102625	1,027.70
	Leslie Malcolm Thistleton (Scarborough)	NLH	603.85
Carried out substandard electrical work Regulation 49(1) E(L)R	Phillip Jamieson (Kingsley)	EW 102986	857.70
Permitted unsafe wiring or equipment to be connected to an electrical installation Regulation 50A E(L)R	Adam Volkerts (Geraldton)	EW 133950	1,107.70
As an employer, failed to ensure effective supervision Regulation 50(1) E(L)R	William Alexander (Greenwood)	EW 107248	Fine 750.00 Costs*
Failed to submit a Notice of Completion for electrical work carried out Regulation 52(1) E(L)R	Brambledon Nominees P/L T/A R L Services (O'Connor)	EC 004043	1,157.70
Sent in a Notice of Completion to the relevant supply authority in respect of the electrical installing work not being completed Regulation 52(3) E(L)R	D'Adamo Nominees P/L T/As L & A Electrics (Landsdale)	EC 003836	1,957.70
	Statewide Electrical Contractors WA (Kingsley)	EC 001710	1,357.70
Employed/instructed an unlicensed person to carry out electrical work Regulation 53(2) E(L)R	Garland & Johnson (Geraldton)	EC 000949	2,857.70
Failed to report an electrical accident Regulation 63 E(L)R	D'Adamo Nominees P/L T/As L & A Electrics (Landsdale)	EC 003836	1,457.70*
Exposed for sale/hire and/or advertised electrical apparatus or installation without being labeled (i.e. energy efficiency labeled) Section 33F EA	Geraldton Technology Centre P/L T/As Geraldton Retravision (Geraldton)	NLH	4,457.70
	Gerel Pty Ltd T/As Harvey Norman Electrical (Geraldton)	NLH	9,000.00

Legend: NLH No Licence Held; E(L)R Electricity (Licensing) Regulations 1991; EA Electricity Act 1945; * Global fine (more than one offence)