

energy

Bulletin

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No slow-down in 2004

Another year comes to an end as I write this article and momentarily contemplate the year ahead.

Readers will be aware that the Government's electricity industry market reform legislation remains on the Parliamentary agenda for early 2004 and will be a key public policy issue. I'd point out however that none of those reforms deal with the technical and safety regulatory framework administered by Energy Safety. Hence there will be no direct changes at our end as a result of those initiatives.

Energy Safety does however have some important projects that remain to be completed during 2004, including:

- (1) formal drafting and finalising of the changes proposed to Part IX of the *Electricity Regulations 1947*, which will set out safe electrical work requirements for the electrical contracting industry and others working on consumers' electrical installations;
- (2) completing the review of the *Electricity (Licensing) Regulations 1991*, a subject that is further dealt with in this edition;
- (3) obtaining more information from Western Power in relation to its intentions for improving electricity supply system reliability in the central wheatbelt areas and Bremer Bay;
- (4) completing the development of a Bill and regulations to deal with the control of vegetation near power lines, to prevent wildfires and minimise power system interference; and
- (5) a Bill to amend the *Electricity Act 1945* and the *Gas Standards Act 1972*, to remove a number of redundant provisions (eg outdated electricity supply standards), to update other

provisions (such as penalties for breaches) and to introduce a number of new provisions (eg to deal with safety concerns in relation to the use of LP Gas as a refrigerant).

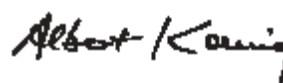
This regulatory development work is specialised, time consuming and has to be accommodated among the operational work of the office, hence there is a good indication that 2004 will be a truly busy year. As a result we are making some changes to our organisational structure to improve efficiency and I'm pleased to advise that from 1 January 2004, Energy Safety will cease to be a "Directorate" of the Department of Consumer & Employment Protection, and become the Energy Safety Division of the Department.

The Energy Safety Division will have three Directorates:

- (1) Electricity Directorate
- (2) Gas & Emergency Management Directorate
- (3) Regulatory Services Directorate

From 1st January 2004, the Acting Director Electricity will be Kevan McGill, the Acting Director Gas & Emergency Management will be Geoff Wood, and the Acting Director Regulatory Services will be Peter Tuck. I will be the head of the Division in an acting capacity, retaining the statutory functions of Director of Energy Safety.

To conclude, the staff at Energy Safety take this opportunity to wish readers all the best for a safe and successful 2004.



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Quality and reliability of electricity supply in the rural south-west region

In June 2003, the Director of Energy Safety released a report about Energy Safety's investigations of more than 270 complaints from electricity consumers in the Toodyay, Bremer Bay, Koorda, Narembeen and Corrigin areas of the rural south-west of WA. They had complained of frequent or extended power outages.

The Director provided a further report in September 2003 setting out recommendations to Western Power for dealing with the problems, together with related comments to help put the recommendations into an appropriate context.

The Director has recommended a seven year program of remedial action that involves considerable work of refurbishing and reconfiguring parts of the country 22kV and 33kV distribution systems, whilst concurrently extending the country 132kV system. The estimated total capital cost is \$49M.

The following table provides a summary of the remedial actions and their timing, that the Director of Energy Safety recommends Western Power should undertake to address the electricity supply problems identified.

The Director noted in his second report the following:

"... the problems that are evident have not developed recently but over quite some time, becoming more pronounced during the last 10 years approximately, as:

- *the age of some of the assets (such as poles and conductors) has increased to the point where many are nearing the end of their normally expected life;*
- *consumer loads have grown and this has put pressure on parts of the distribution system; and*
- *consumers in country areas like elsewhere are increasingly dependent on electricity for their businesses and private activities, and their expectations in terms of supply reliability have changed (and are consistent with the benchmark standards for rural areas).*

Significant remedial action is now required to achieve acceptable standards of performance, especially in respect of reliability."

The Director is presently awaiting a detailed response from Western Power to his recommendations, so he can advise consumers who have complained.

The Director's full report and the Minister's press release may be viewed on Energy Safety's website.

Network operator fined for failing to provide a safe work environment

In January 2000, a 23-year-old electrical engineer employed by Western Power died as a result of electric shock and severe burns he sustained when he inadvertently came into contact with high voltage in the Ladyloch Pumping Station at Coolgardie.

This tragic accident occurred in the main because the substation did not meet the general safety clearances required by Australian Standard AS 2067. The deceased contacted one of the arcing horns fitted to one of two transformers' live 33,000 volts open aerial high voltage bushings. These live parts were just 1.4 metres vertically above ground level.

Following investigations by WorkSafe and Energy Safety, WorkSafe prosecuted Western Power for breaches of the *Occupational Safety and Health Act 1994*.

As a result, Western Power was convicted in November 2003 for failing to provide a safe working environment and fined \$50,000.

In convicting Western Power, the Magistrate said that, even when employees failed to take care for their own safety, the onus was still on the employer to be alert to foreseeable dangers and to take appropriate precautions to protect employees from those dangers.

Since the incident, Western Power has upgraded all its substations that were of the same type as the Ladyloch distribution substation to comply with safety clearance standards. Western Power has also reviewed access arrangements to its electricity facilities.

SUMMARY OF RECOMMENDATIONS

Item	Date	Cost
<ul style="list-style-type: none"> • Undertake already planned distribution reinforcements. • Commence approvals processes for various 132kV lines listed below. 	2003-04 & 2004-05	\$4.6M
• Build Wongan Hills – Koorda 132kV line.	2005-06	\$11.0M
<ul style="list-style-type: none"> • Build 132kV Wongan Hills substation. • Build 132kV Koorda substation. 	2006-2007	\$5.0M
<ul style="list-style-type: none"> • Build Northam – Toodyay 132kV line. • Build 132kV Toodyay substation. 	2007-2008	\$6.0M
<ul style="list-style-type: none"> • Build Northam – York 132kV line. • Build 132kV York substation. 	2008-2009	\$7.1M
<ul style="list-style-type: none"> • Build Merredin Terminal – Narembeen 132kV line. • Build 132kV Narembeen substation. 	2009-2010	\$11.7M
• Install local generating station at Bremer Bay.	As soon as possible	\$3.0M
Total		\$48.4M

Electrical and gas safety messages go to air

Energy Safety recently aired several electrical and gas safety messages on community radio stations. The safety messages were developed to particularly alert the general public of their responsibilities for their own personal safety. The same principles apply of course to ALL electrical and gas workers.

The safety messages addressed the following important areas.

Reporting electric shocks

A number of recent electric shocks that were not reported in the first instance subsequently resulted in serious injury to others. Regulation 63(1) of the *Electricity (Licensing) Regulations 1991* requires that where an electrical accident that has caused or is likely to cause danger to life or property has occurred, any person who is aware of the accident or danger shall immediately report the fact to the relevant network operator (electricity supply authority) and also the Director of Energy Safety. These responsibilities apply to everyone, including members of the general public.

Reporting gas leaks

Regulation 42(1) of the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* requires that a person who is aware of a gas incident that has caused or is likely to cause injury to a person or damage to property, must immediately report the fact to the relevant gas supplier and also the Director of Energy Safety. One indicator of an impending gas incident is an escape of gas. It is important that everyone who becomes aware of a gas leak reports the matter to the gas supplier.

As a general rule, when there has been a safety incident at a consumer's electrical or gas installation, the most important

organisation to promptly advise is the electricity or gas supplier so the installation's service apparatus (incoming cables, gas pipes, meters etc) and the consumer's installation can be inspected to assess the situation, identify the problem and allow corrective action to be organised. If the supplier cannot be identified, reports should be made to Energy Safety.

Working in roof spaces

Electrical and gas industry personnel need to take special care to protect their safety when entering roof spaces of buildings. Over the years, a number of tradespersons (including electrical) have been electrocuted in roof spaces whilst attempting to work on wiring or whilst carrying out other types of work. Roof spaces are often dark, confined and difficult areas in which to work safely – and without accidentally disturbing old wiring or in some other way, making accidental contact with live parts. The best approach is to **turn off the relevant main switch and tag it.**

Proposed amendments to the Electricity (Licensing) Regulations

Energy Safety is proposing a number of important improvements to the *Electricity (Licensing) Regulations 1991*. These regulations, which provide for the safety of consumers' electricity installations and a framework for the licensing of electrical operatives, have now been in place for 12 years.

The changes are considered necessary to improve the safety outcomes for consumers, to improve effectiveness of the regulations and to give greater transparency of the regulatory processes.

The changes proposed to the regulations include:

- the introduction of a Certificate of Compliance (which will involve changes to Notices)

- the requirement to produce a safe installation (such as one complying with standards)
- the requirement for licence holders to attend safety refresher seminars before their licence is reissued, if required by the Electrical Licensing Board
- the introduction of new terms such as 'electrician' (instead of "A" grade electrical worker)

Energy Safety previously consulted with industry about the updating of the regulations and it is now proposed to conduct a second and final round of consultation. Energy Safety staff will meet with industry representatives (union and contractor associations) and network operators (supply authorities). There will also be some industry presentations. Details of industry presentations will be provided in the coming weeks.

An information paper setting out the changes will be issued to stakeholders early in 2004.

There have already been some recent minor amendments to the regulations to improve the constitution of the new Electrical Licensing Board. These amendments were based on recommendations from the review of Boards and Committees undertaken by the Hon John Kobelke, Minister for Consumer and Employment Protection (see "Appointment of new Electrical Licensing Board" in this Energy Bulletin).

Further changes will also be necessary to the regulations at a later date, when the proposed State Administrative Tribunal is established to deal with appeals and some of the disciplinary matters currently carried out by the Electrical Licensing Board.

Further progress on capstone assessments for electrical apprentice training

Since the article in Electrical Focus No. 29 (October 2003) regarding the introduction of the Capstone Assessment, further progress has been made by the Department of Education & Training and Energy Safety.

The Curriculum Support Services Network (CSSN) held a workshop in WA early in December 2003 to further discuss the implementation of the Capstone Assessment. The CSSN represents a collection of registered training organisations that, as a group, provide a resourceful, convenient one-stop curriculum service to support the delivery of vocational education and training programs, including electrical training. Participants of the workshop were predominantly electrical lecturers from across the State.

Key outcomes from the workshop included the following:

- Proposed development of a number of Capstone Assessment papers to be undertaken by selected electrical lecturers who have significant expertise within their area of electrical training responsibility. This will be performed as a matter of priority during January 2004.
- The Capstone Assessment papers will also be 'moderated' by WA based electrical training staff. [Note: 'Moderation' is a term used to describe the method whereby independent persons (typically other electrical lecturers) review and adjust

where required the assessment papers to ensure question clarity, relevance and equality between papers.]

The resulting Capstone Assessment papers will then be applied to apprentices near the end of their training, typically toward the end of the fourth year of training, by registered training organizations, to confirm that they satisfy specific training outcome requirements, for licensing purposes.

All electrical apprentices should have received a letter from the Department of Education and Training (Apprenticeship and Traineeship Directorate) during August 2003, providing full details of these arrangements.

For further information: Persons who have any enquiries regarding the Capstone Assessment should contact the relevant registered training organisation or contact one of the Support Officers at the Apprenticeship and Traineeship Support Network by telephoning 9229 5450.

New Electrical Licensing Board

The Minister for Energy recently announced the appointment of a new Electrical Licensing Board.

Recent amendments to the *Electricity (Licensing) Regulations 1991* implemented a number of improvements in the constitution of this new Board, following recommendations from the review of Boards and Committees undertaken by the Minister for Consumer and Employment Protection.

This new Board better represents the interests of users (or "consumers") of electrical services, either through the use of electrical contractors or through the direct employment of electricians. The changes will also ensure that the interests of traditional electrical industry stakeholders and the interests of consumers are reasonably balanced.

The new Board is constituted of:

1. an independent Chairman with management and technical experience in the electrical industry (Mr Steven McMerrin);
2. a nominee from bodies representing the interests of electrical workers (Mr Jim Murie);
3. a nominee from bodies representing the interests of electrical contractors (Mr John Sweeting);
4. a nominee from bodies representing the interests of electrical workers with restricted licences (Mr Kelvin McCann);
5. a nominee from bodies representing the interests of large businesses, who are consumers of electrical services (Mr Gerry Brundish);
6. a nominee from bodies representing the interests of small businesses, who are consumers of electrical services (Mr Robert Forrest);
7. a residential consumer of electrical services (Ms Valdene Buckley); and
8. a representative of Energy Safety (Mr Kevin Rosher).

The new Electrical Licensing Board commenced its term of office on 21 December 2003, for a three-year period.

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