



e | n | e | r | g | y

Bulletin

ISSN 1323-8957

Inside...

Energy Bulletin

- Standards for Electricity Supply
- New Regulations for Electricity Supply Network Operators
- Disciplinary Action taken by the Gas Licensing Committee and Director of Energy Safety
- Disciplinary Action Taken by the Electrical Licensing Board

Electrical Focus

- Electrical Work in Close Proximity or on Live Equipment
- Supervision Requirements for Supervisors of Permit Holders
- Guideline 01/2002 Issued by the Director of Energy Safety
- Implementation Date for New Zone 2 Areas in Baths and Showers (Guideline 01/2002)
- Installations in Hazardous Area and Explosive Atmospheres
- Six-Months Transition Time for Standards and Amendments
- New Publication "Designing to the Wiring Rules"
- Prosecutions for Breaches of the Electricity (Licensing) Regulations 1991
- Replacement Gas Water Heaters in Multiple Dwellings

Gas Focus

- Audits of Commercial Catering Premises by Office of Energy Gas Inspectors
- Prosecutions for Breaches of the Gas Standards Act 1972 and Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999

Standards for Electricity Supply

The Electricity (*Supply Standards and System Safety*) Regulations 2001 came into effect on 4 January 2002 and, amongst other things, set quality and reliability standards for electricity supply and accuracy standards for electricity meters.

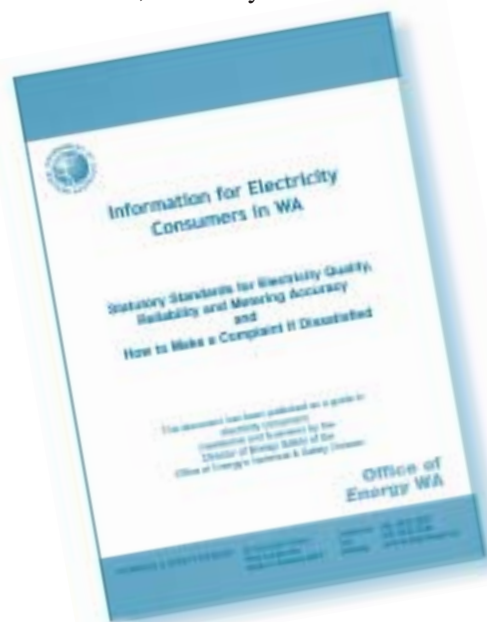
The Office of Energy has published a booklet entitled *Information for Electricity Consumers in WA – Statutory Standards for Electricity Quality, Reliability and Metering Accuracy*. This booklet explains the nature of electricity supply quality and reliability problems and indicates the normal acceptable standards. It also addresses electricity supply reliability issues with an explanation of the supply reliability standards that a consumer can realistically expect.

The booklet will be a useful guide for consumers, consumer groups, electrical contractors and electrical engineering consultants, who may

suspect that there may be a problem at a specific location with regard to supply quality/reliability or meter accuracy. The booklet provides an indication of what is normal performance and what variations from the declared standards are acceptable. It also explains the procedures which have been established to deal with complaints on these matters.

In the first instance, a consumer (or agent of the consumer) needs to raise any complaint with the electricity supplier. If dissatisfied with the outcome, the Director of Energy Safety can be requested to carry out an independent review. The booklet explains how such a review can be carried out.

Copies of the booklet are available free of charge from the Technical & Safety Division (please telephone 08 9422 5200 and a copy will be mailed out to you, free of charge) and on the website at www.energy.wa.gov.au. Copies may also be available at the local office of your electricity supply authority.



ALBERT KOENIG
DIRECTOR OF ENERGY SAFETY

The Office of Energy has issued the booklet "Statutory Standards for Electricity Quality, Reliability and Metering Accuracy and How to Make a Complaint"

Office of
Energy WA

New Regulations for Electricity Supply Network Operators

On 4 January 2002, the *Electricity (Supply Standards and System Safety) Regulations 2001* came into force for WA's electricity supply industry. There are increasing pressures to optimise the return from investment and minimise the cost of service delivery with the resultant potential to impact on the technical and safety standards of electricity system operators (or "network operators", a preferred term). These regulations were therefore created to provide statutory obligations on network operators. They deal with:

- minimum standards for electricity supplied;
- the need for network operators to manage meter population, in terms of accuracy; and
- network safety requirements.

Standards for Electricity Supplied

Consumer installations require an electricity supply of suitable voltage and suitable frequency, as well as limited harmonic content, if appliances are to operate safely and effectively. To ensure this, the network operator is required to provide, as a minimum, at the point of supply (ie. start of the consumer's installation), electricity at prescribed supply standards.

Furthermore, the network operator is required to manage the network so that unplanned and planned interruptions (or "outages") to a consumer's supply meet reasonable standards.

Network Safety

The regulations provide electricity network operators with two safety compliance options:

- Complying with a set of prescribed (minimum) safety and technical standards set out in schedules attached to the regulations. This option is likely to suit small network operators for whom a "safety case" may not be attractive due to the extent of work involved in developing such a case. The regulations also allow alternative standards to be proposed, if desired.

Prescribed activities are designed to include only electricity-related matters, and hence don't include general work activities associated with the business of electricity distribution.

The network operator has an obligation to ensure that employees (this term is defined to include contractors and subcontractors) are both trained and competent to carry out the work as well as provided with documents setting out the standards, procedures and practices to be followed. This is considered an important corporate obligation in an industry dealing with potentially hazardous circumstances.

- Submitting and complying with a "safety case" based on the general principles of the Australian Gas Association Code AG 606 which is relevant to network operators in general. This option is likely to suit larger network operators that have a corporate quality assurance approach, as it provides greater flexibility in terms of the standards which may be used.

Providing a Safety Case

The submission of a 'safety case' provides considerable flexibility to the network operator by allowing the organisation to determine how the safety risks associated with operating an electricity network will be managed. Under regulation 21, a provision has been made for the Director to issue guidelines to assist persons in the preparation of a safety case. Experience in similar activities under other regulatory requirements has shown such assistance to be of value.

Any guidelines issued under the provision would not be mandatory nor would they be intended or able to change any of the details specified in the code setting out requirements for the 'safety case'. Reference is also made to the recently published ESAA *National Electricity Network Safety Code* for guidance.

The regulations provide for the development of a safety case to be in two stages. Certification of the content by an independent third party is required at both stages, prior to submission to the Director for permission to:

- finalise the safety case; and after finalisation
- implement the safety case.

The Director is required to approve the independent third party auditor as being suitable, after nomination of that person by the network operator.

The development of the safety case in two stages is desirable and necessary because it is unlikely that a new network operator will have all the requirements (such as training) in place. However, the network operator is required to have identified, at the initial stage, all the necessary requirements and developed an implementation schedule.

The second stage allows for the network operator to demonstrate, by submitting the documented safety case together with a certificate from the independent auditor, that all the measures identified in stage 1 are in place and that it is intended to implement the safety case.

The life of the safety case is five years after which a major review is required. The network operator is required to carry out an annual audit to determine the currency and effectiveness of the safety case and may make recommendations on any changes. The audit report is to be lodged with the Director and the approval of the Director is required to any changes.

Action When Danger Reported

This regulation requires a network operator, once aware of the problem, to take action to investigate each instance where its activities or assets are a threat to the safety of any person or property. The network operator is required to take remedial action if the investigation reveals such a safety risk.

This article has been reproduced with the permission of the editor of "Power Transmission & Distribution".

Disciplinary Action taken by the Gas Licensing Committee and Director of Energy Safety 1 November 2001 to 28 February 2002

Formal Inquiries

There were two formal enquiries:

Mr Andrew McPherson (GF 008207)

Mr McPherson was the subject of an inquiry that commenced on 8 October 2001 and concluded on 2 November 2001.

Mr McPherson modified an electric pie warmer to become a gas-fuelled pie warmer and installed it into a catering van. In doing so, he:

- failed to ensure the maximum outlet pressure by not installing test point/s;
- failed to sufficiently secure the installed pipes;
- installed a drain in the LP Gas cylinder compartment but not of the required dimensions;
- failed to install a manual shut-off valve on the inlet connection of the appliance and failed to fix any labels to the installation;
- failed to provide any labels or written material to the owner of the installation;

- failed to fit an appliance regulator; and
- failed to organise an inspection of a modified appliance.

Mr McPherson's G Class Permit was suspended for six months from 2 November 2001 and until he can prove his competence.

Mr Paul Stuart Reid (GF 003160)

Mr Reid was the subject of an Inquiry that commenced on 16 July 2001 and was concluded on 29 January 2002. Mr Reid had carried out substandard gas fitting work and the inquiry was adjourned to allow Mr Reid to complete formal training. He did not complete the training and his Certificate of Competency was subsequently cancelled. Mr Reid also voluntarily returned his Certificate.

Gas Licensing Committee Interviews

The Gas Licensing Committee interviewed three other gas fitters. Two gas fitters will be subject to inquiries and the third is still being investigated.

Notification of suspensions as a result of formal proceedings is sent to electricity and gas suppliers in WA and licensing authorities throughout Australia.

Articles in this publication may be reproduced, provided they are reproduced in full and show acknowledgement to the Technical & Safety Division of the Office of Energy.

Disciplinary Action Taken by the Electrical Licensing Board 1 November 2001 to 28 February 2002

The Electrical Licensing Board dealt with 17 operatives.

Competency Assessments

Two operatives were required to undergo competency assessments:

F Trentmann
C Zoutman *

* Mr Zoutman has since complied with the Board's order and satisfactorily completed the competency assessment.

Interviews

Eight operatives were interviewed by sub committees of the Board:

P Cain
D Game
L Ng Wong
H Van Der Merwe
J Whittle
G Mayvis
J Grego
B White

Summary Proceedings

Four operatives accepted summary proceedings and were censured for their actions:

D Holden
L Ng Wong
D Game
P Cain

Formal Proceedings

Three operatives attended formal proceedings:

W Alexander
J Bech
N Mills

Outcomes from the formal proceedings were:

- Two operatives had their electrical worker's licences suspended.
- One operative was censured for his actions.

The details are as follows:

Mr William Alexander (EW 107248, EC 000102)

Grounds for the proceedings:

Mr Alexander failed to adequately check and test an installation and an occupant of a unit received an electric shock whilst showering. The shock resulted because there was no neutral conductor between the main neutral link and the link for the neutral conductors from each unit at the main switchboard.

The Board's Order:

Mr Alexander's electrical worker's licence was suspended until he successfully completes the Electrical Trade Licensing Course. Mr Alexander may apply to work under a permit.

Mr John Phillip Bech (EW 111373, EC 002258)

Grounds for the proceedings:

Mr Bech isolated a circuit by switching the circuit breaker "off" but did not take adequate/sufficient precautions to ensure the circuit could not be re-energised by securing the breaker in the "off" position or fitting a "danger tag". Another worker reset the circuit breaker and an apprentice received an electrical shock.

The Board's Order:

Mr Bech's electrical worker's licence was suspended. He must successfully complete the Checking and Testing an Electrical Installation Course and, within three months, successfully complete an appropriate Isolation and Tagging Course. A further condition was placed on Mr Bech's electrical contractor's licence that, within four months from the date of the order, he completes the nominee modules of the Electrical Contractors' Training Programme. Until Mr Bech has satisfied this condition, he is not permitted to employ or supervise apprentices.

Mr Norman Mills (EW 130125)

Grounds for the proceedings:

Mr Mills failed to check and test the electrical installation at a shed to ensure it was safe to connect to the electricity supply.

The Board's Order:

Mr Mills was strongly censured for his actions and advised that, whilst the Board did not intend to take any further action at this time, he was reminded that any future breaches would be dealt with more severely.

For enquiries on articles in the Energy Bulletin, please contact Harry Hills – Office of Energy
20 Southport Street West Leederville WA 6007
Telephone: (08) 9422 5208 • Fax: (08) 9422 5244
Email: safety@energy.wa.gov.au

Alternative formats of the Energy Bulletin may be available to meet the needs of people with disabilities.