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Bulletin

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Office of **Energy**

Organisation Changes at Regulator's Office

The recently elected West Australian Government is committed to delivering better Government through appropriate reform of public sector structures.

To that end, Cabinet recently approved recommendations arising from the earlier "Machinery of Government Review". This has set in train the reorganisation of many public sector bodies, principally in an effort to reduce the overall number of departments.

The Technical & Safety Division (TSD) of the Office of Energy is affected by these changes. The Division is expected to transfer to the Department of Consumer and Employment Protection (DOCEP), which reports to the Minister for Consumer and Employment Protection, the Hon. John Kobelke MLA.

There are practical synergies with this proposed transfer. The functions of TSD (and its head, the Director of Energy Safety) are those of a technical/safety regulator for the energy industry, with the dual focus of protecting energy consumers, as well as ensuring the safety of the public, people in their homes, and energy industry workers. Accordingly, the functions of TSD fit well with those of the new Department, which already includes other regulatory divisions such as WorkSafe WA and Consumer Protection (previously termed 'Fair Trading').

So what does all this mean for industry? The energy regulation functions of TSD will not change. Services such as licensing of industry operatives will be able to be improved. The location of TSD (including the Licensing Office) will remain at 20 Southport Street, West Leederville. Phone numbers will not change.

The other part of the Office of Energy, headed by the Coordinator of Energy and located in the Central Business District, will for the time being remain as the Office of Energy. The statutory economic regulation functions of the Coordinator are expected to eventually be transferred to the new Economic Regulator, when that position is established as part of the electricity supply industry reforms currently in progress.

The date for TSD's transfer to DOCEP has not yet been finalised, but it is expected to be sooner rather than later. Further detail of these changes will be notified in subsequent editions of the Energy Bulletin.

ALBERT KOENIG
DIRECTOR OF ENERGY SAFETY

**Office of
Energy WA**

Electrical Licensing Board Requirements for Electrician Licences

The lead article from Energy Bulletin 20 (April 2001) described the recent review and development of new competency requirements for the issue of electricians' licences. This included the development of the 66 essential capabilities to be covered by training and the requirement of the apprentice to complete a "Capstone Assessment" to confirm the most critical of these capabilities have been attained. These requirements are contained in the Electrical Regulatory Authority Council (ERAC) "ERAC Electrician Licensing Policy 2001".

Recently, implementation of the above policy in WA was approved by the Electrical Licensing Board which has initiated correspondence to all Registered Training Organisations (RTOs) that deliver electrical training. The correspondence requests RTOs to apply for "approval" of the RTO's electrician training scheme and to undertake to comply with all aspects of the policy requirements. As part of the condition for approval, the RTO also needs to confirm agreement to compliance audits by the Electrical Licensing Board's nominated representative.

Implementation of the Policy 2001 has taken effect from 1 July 2001 for all new enrolments and for those already enrolled in the new training packages. More detailed information is provided on the Office of Energy's website.

Technical & Safety Division Activities 2000-2001

This Energy Bulletin focuses on the highlights and activities of the Technical & Safety Division during the period July 2000 to June 2001.

The information includes details of overall electrical and gas safety outcomes, which will be of general industry interest. Further details of the Technical & Safety Division's activities are available in the Office of Energy Annual Report 2000/01 which will be available on the Office of Energy website in September 2001.

Industry Seminars

During the year, the Technical & Safety Division conducted an extensive technical seminar program for electrical and gas industry personnel. Many technical issues were addressed at the seminars.

At the conclusion of each of the seminars, an open forum was held to encourage questions and comments from the audience.

Electrical Industry Seminars

During June and July this year, eleven electrical industry seminars were held throughout regional and metropolitan WA in locations ranging from Port Hedland, Newman and Karratha in the north through to Bunbury and Albany in the south. Around 1 500 electrical operatives attended the presentations.

Key matters addressed at the seminars included licensing issues, checking and testing (including the application of fault loop impedance measurement methods), the application of MEN connections and investigations into breaches and electrocutions.

Gas Industry Seminars

Around 200 gasfitting workers attended gas industry seminars held in regional WA and some 500 gas industry people attended seminars in the Perth area.

The 15 seminars covered a range of topics including licensing issues, case studies of incidents involving defective work and accidents, requirements for supervision of workers and changes to the regulations.



Electrical contractors and electrical workers attending an electrical industry seminar at Arena Joondalup

Licensing of Electrical Operatives

The Electrical Licensing Board is constituted under the provisions of the *Electricity (Licensing) Regulations 1991* and has statutory responsibility for the issue of electrical licences. The Board reports to the Minister and the Director of Energy Safety.

The following registrations were in effect as at 30 June 2001:

Electrical workers	22 389
Electrical contractors	3 020
In-house licence holders registered	223

The Board conducted 31 investigations that included six formal disciplinary proceedings and six summary proceedings. The results of these activities were:

- 7 operatives had their licences cancelled/suspended
- 13 operatives were required to undergo a competency assessment
- 6 operatives had to undergo further training
- 2 operatives were required to demonstrate they had implemented corrective work practices
- 8 operatives were issued with censures.

Members of the Board are appointed by the Minister for Energy. A new Electrical Licensing Board was appointed in December 2000.

The members of the Electrical Licensing Board on 30 June 2001 were:

Robert Pritchard (Chairman)
Self employed Consulting Engineer

Ian Linn
Nominated by the WA Department of Training and Employment

Kevan McGill
Nominated by the Office of Energy

John Sweeting
Nominated by the Electrical Contractor's Association

Ross Graham
Appointed as a person with knowledge of restricted electrical work

Geoff Wrigley
Nominated by the Chamber of Minerals & Energy and the Chamber of Commerce & Industry of WA (Inc)

Jim Murie
Nominated By the Communications, Electrical, Plumbing Union

The Board met 21 times during the year. The Board adopted the ERAC Electrician Licensing Policy 2001 (see article "Electrical Licensing Board Requirements for Electrician Licences" in this issue of the Energy Bulletin).

This policy outlines the new nationally agreed licensing arrangements and competencies for electricians, which came into effect on 1 July 2001.

The Electrician's Newsletter

The Electrician's Newsletter is a new initiative of the Technical & Safety Division and the Electrical Licensing Board. The purpose of the Newsletter is to inform electrical operatives about important safety and technical issues. The first edition was produced and directly distributed to about 16,600 electrical operatives in May 2001. Topics covered include the Multiple Earthed Neutral system of earthing, final sub-circuit design and worked examples and details of the WA Electrical Requirements (WAER) document. Feedback has been extremely positive and future issues are being planned.

Readers are reminded that the Electrician's Newsletter will only be distributed by email to registered email addresses. Electricians may still register their email address with the Technical & Safety Division. This can be carried out on the Office of Energy website or by email to register@energy.wa.gov.au.

The next issue of the Newsletter is currently in the drafting stages and will be dispatched by email in September 2001. This next issue, as all future editions of the Newsletter, will only be available from the Office of Energy website.



Mitchell Ross, Regional Manager of MM Electrical (far left) congratulates Rick Sommerford whilst, from left to right, John Johnston, Robert McKee and Kevan McGill, Deputy Director Energy Safety, look on

Winners of Trade Tool Vouchers

As advertised in the first edition of the Newsletter, three electricians who registered before 30 June 2001 to receive future issues of the Newsletter by email were randomly selected to each receive a \$100.00 trade tool voucher. The winners of the Trade Tool Vouchers were:

- John Johnston
- Rick Sommerford
- Robert McKee

The Trade Tool Vouchers were kindly donated by MM Electrical.

Mitchell Ross, Regional Manager of MM Electrical and Kevan McGill, Acting Director of Energy Safety presented John, Rick and Robert with their Trade Tool Vouchers at an informal presentation at the Office of Energy.

Electrical Inspections Carried out by the Office of Energy

Inspections of installations not supplied from utility supply systems	684
Investigations into breaches of the Electricity Act and Regulations	217
These investigations into breaches resulted in:	
Prosecutions	59
Written Warnings	111
Investigations into various types of reported electrical safety incidents including fatalities	159
Audits of electrical appliance retailers in respect of compliance with statutory safety and energy efficiency labelling requirements	23
Surveys/audits of electrical contractor/air conditioning installers work systems and practices	43

Auditing of Electricity Supply Authorities' Inspection Performance

Electricity supply authorities inspect consumer installations supplied from their system under their own Inspection System Plans and Policy Statements that are approved by the Director of Energy Safety.

On 16 January 2001, Western Power's new Inspection System Plan and Policy Statement was approved after more than two years of discussion.

Western Power's Plan details its system of inspection, through which it monitors the work by electrical contractors and other licensed persons.

Western Power also gained authorisation for certain types of electrical contractors and their electrical workers to connect electrical installations to the electricity supply system prior to an inspection and submission of a Notice of Completion. This process is called the Contractor Connect Scheme. The scheme requires the electrical contractor to have a proven track record, undertake additional training and a competency assessment and be subject to regular auditing by Western Power.

The Director of Energy Safety also endorsed Western Power's trial for electronic submission of Preliminary and Completion Notices by electrical contractors. Six electrical contractors are participating in the trial. It is expected that this system will provide significant benefits to electrical contractors and Western Power Corporation.

(Continued from previous page)

A change to the *Electricity Licensing Regulations 1991* will be required to fully introduce this system once the trial is completed.

The Office continues to audit the electricity supply authorities' inspection performance to assess compliance with their approved Plans.

The following electricity supply authorities are subject to audit:

- BHP Iron Ore
- Hamersley Iron
- Robe River Iron Associates
- Rottneest Island Authority
- Western Power Corporation
- WMC Resources

During the year, seven audits were conducted at Hamersley Iron, Robe River Iron Associates, Western Mining Corporation, Rottneest Island and Western Power Corporation (three audits).

Electricity Related Accidents

The following electricity related accidents were reported:

Electric shocks	482
Accidents (including four electrocutions)	22

The accidental fatalities arose as follows:

- A farmer mistakenly plugged a 12 volt battery charging lead into a 240 volt AC outlet on a generator.
- A person welding touched a welding electrode whilst changing the electrode in a confined space.

- An electrician touched "live" terminals with his forehead when working in a main switchboard. (See article "Death of Electrical Worker Highlights the Need to Shroud Live Parts" in Electrical Focus No.21, inside this Bulletin)
- A man received a fatal electric shock whilst standing on the deck of a yacht when the mast touched high voltage power lines.

In September 2000, the State Coroner held an inquiry into the electrocution of an electrical worker at a fast food restaurant after being advised that a person working at the restaurant had received an electric shock. The State Coroner commented that this death could have been avoided if the public was made aware that such electric shocks must be reported to Western Power Corporation and the Director of Energy Safety, as required under Regulation 63 of the *Electricity Licensing Regulations 1991*. He stated, "These regulations are not well known and understood among members of the public". The Coroner made the following additional statement:

"I recommend that the Office of Energy and supply authorities review measures presently being taken to inform the public of the need to report such accidents with a view to heightening public awareness both as the potential dangers associated with such accidents and to the responsibilities of those who

become aware of such accidents to immediately report them. It would be helpful if any such information clearly identified who should be contacted and provided relevant telephone numbers."

So far, the Technical & Safety Division has not had the funds to undertake the necessary advertising. Furthermore, the Technical & Safety Division does not have the authority to require such safety advertising by supply authorities, but it is hoped they will respond accordingly.

Electricity Supply Investigations

During the year, a significant number of issues were investigated. The following two are examples of the diversity of these activities:

- An extensive bushfire at Mt Barker on 28 December 2000 was investigated. It was concluded that the source of the fire was an electrical fault on a high voltage overhead line belonging to Western Power. A report was released to interested parties.
- At the request of the Director of Energy Safety, Western Power carried out an investigation into the risk of structural failure on the 220 kV Muja to Kalgoorlie transmission line. This resulted in Western Power advising that it would strengthen transmission towers at some locations to minimise the risk of structural failure, in the interest of public safety.

Draft Electricity (Supply Standards and System Safety) Regulations

In early 2001, the Minister for Energy approved commencement of the consultation phase for the draft *Electricity (Supply Standards and System Safety) Regulations*. For that purpose, an industry and public reference group was established and written comment was sought from the general public and industry with a closing date of 2 July 2001 for

submissions.

The submissions are now being addressed and a final version of the regulations will be drafted, with a view to their coming into effect later this year. In the meantime, progress of the regulations may be viewed on the Office of Energy website under "What's New".



Licensing of Gas Operatives

The Director of Energy Safety under the *Gas Standards Act 1972* and the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* has the authority to issue gas permits and authorisations. The Gas Licensing Committee assists the Director with this responsibility by approving the issue of non-routine gas licences and the provision of advice on disciplinary matters.

The Committee met 23 times through the year.

At 30 June 2000, there were 6,192 persons registered for gasfitting work.

The Committee interviewed 15 gas fitters for disciplinary purposes over the past twelve months. From those interviews, five formal inquiries and three summary inquiries were initiated.

The results were:

- 3 gas fitters had their Certificate of Competency cancelled
- 1 gas fitter had his permit suspended
- 1 gas fitter had his Certificate of Competency suspended
- 2 gas fitters were required to undertake further training
- 3 gas fitters were censured for their actions.

Gas Distribution Legislation Amendment Bill 2001

The development of a Bill to amend the *Energy Coordination Act 1994* and the *Gas Standards Act 1972* has been completed. The purpose of the Bill is to ensure the gas regulatory regime is suitable for the new industry environment and structure including new gas distribution licence holders and a privatised AlintaGas.

Industry consultation was carried out through a reference group comprising representatives from AlintaGas, Kleenheat Gas, Combustion Air, CMS Gas Transmission and Agility Services. It is hoped this legislation will be introduced into Parliament during 2001/02.

Gas Standards (Gas Supply and System Safety) Regulations 2000

Regulations covering the technical and safety aspects of gas distribution (gas supply) were completed and the regulations came into force in July 2000.

The regulations ensure:

- safety of the public, gas consumers and gas workers in the vicinity of gas distribution (gas supplier) assets; and that
- gas supplies conform to acceptable standards of quality and metering accuracy to protect all ordinary gas consumers.

Gas Standards (Gasfitting and Consumer Gas Installations) Amendment Regulations (No. 2) 2000

Amendments to the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* were drafted and came into effect on 17 December 2000. These regulations deal with technical and safety requirements for consumers' gas installations and the work of gas fitters in Western Australia. The amendments cover a number of issues and improvements, including responsibilities of installing gas fitters, appliance approval processes, reporting responsibilities and the introduction of updated Australian Standards.

Code of Practice for Inspectors (Gas) in Western Australia

The Director developed and issued a Code of Practice to assist people designated or planning to be designated as an Inspector (Gas). The Code provides information on how the different types of inspectors are designated, the powers and limitations of an inspector and the principles and practices an inspector is expected to follow when carrying out his or her duties. All Inspectors (Gas) received a copy of the Code of Practice with their 2001 designation.



Guidelines for Approval of Industrial Gas Appliances (Type B Appliances) in Western Australia

These Guidelines were developed and issued by the Director of Energy Safety to assist members of the gas industry by providing information on how to obtain approval for installing and operating industrial gas appliances. The Guidelines also describe the roles of industry participants in the approval process.



Gas Appliance Issues

Type A gas appliances are the types of appliances that are specified in the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* and are domestic or commercial appliances such as room heaters, cooking appliances and hot water systems. Type B appliances are any gas appliances that are larger than 10Mj/hr and are not specified in the regulations as Type A appliances. These are industrial appliances such as boilers, furnaces, kilns and power generating gas equipment.

Type A Gas Appliance Approvals

Submissions received	50
Appliances approved from submissions	107

Some local manufacturers seek this approval for small numbers of gas appliances to test the market acceptance of these appliances, prior to large-scale production and obtaining full Australian Gas Association approval.

Type B Gas Appliance Approvals

Approvals carried out by Office of Energy, gas suppliers' inspectors and independent inspectors	247
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Trans-Tasman Trade in Gas Appliances

The Trans-Tasman Mutual Recognition Agreement continues to cause problems for regulators in Australia and New Zealand. The Office is an active participant in the Australia and New Zealand Gas Technical Regulators Committee (GTRC). Considerable effort to harmonise the countries' safety regulatory requirements for domestic and commercial gas appliances has not yet resolved the matter. Work is proceeding in determining if mutual recognition is possible or a permanent exemption is required.

Inspection of Consumers' Gas Installations by Gas Suppliers

Gas supplier's Inspection Plans and Policy Statements for the inspection of installations are required to be approved by the Director of Energy Safety.

A supplier may carry out sample inspections in accordance with the Plan rather than inspect all installations. These Plans have been in operation since 1998 and this year completes the first year of operation since their revision in 1999/2000. Suppliers operating under an Inspection Plan and Policy Statement are AlintaGas, Origin Energy, BOC Gases and Kleenheat Gas. Gas suppliers' inspection work was audited for compliance with Plans during the year.

Gas Inspection Work by the Office of Energy

Mine sites	45
Autogas installations	149
Caravans/campervans	105
Mobile food vending vans	44
Marine	49
Appliance retail outlets	116
Hire/camping company audits	33
Second hand outlets	117
Total inspections/audits	658
Number of Notices of Defect issued on new gas installations inspected by the Gas Inspection Branch	22

Number of Inspectors' Orders written where gas installations were inspected by Gas Inspection Branch and required maintenance or repair	118
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A total of 169 investigations into various incidents (including fires) resulted in 25 prosecutions and 32 warnings.

Incident/Accident Reports:

Number of reported gas incidents	140
Number of actual gas accidents (where injury had been sustained requiring hospital treatment)	13

The increase in the reportable incidents compared with the previous year reflects the mandatory requirement by industry to report these incidents. The most common of these accidents were injuries sustained whilst lighting barbecues and storage water heaters.

Gas related fatalities	0
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Mine Site Inspections

The Gas Inspection Branch increased its visits to mine sites, inspecting industrial gas appliances and domestic and commercial catering appliances installed in the mining camps. To assist mine site operators manage the servicing of these gas appliances, a Gas Service Logbook was developed to record the service history of gas installations.

Gas Sampling

Sampling of natural gas was witnessed and sampling of liquefied petroleum gas (LP Gas) was carried out throughout the State. Gas samples were tested for compliance with the quality standards contained in the regulations.

"Wiring Rules" Seminar to be Held in Perth

Standards Australia has announced a new 2001 seminar series on AS/NZS 3000:2000 Wiring Rules.

The half-day seminars will:

- explain the companion documents that are used with the Wiring Rules;
- give updates on changes;
- provide answers to frequently asked questions;
- explain a set of associated Standards for those wanting guidelines; and
- include a question time and open forum to give the opportunity to ask questions.

Speakers will be members of Committee EL/1.

The Perth seminar will be held from 1:30 pm to 6:00 pm on Wednesday 3 October 2001 at the Mercure Hotel, Perth.

For further information on this seminar, or to register to attend, please contact Standards Australia by telephoning 1300 656 529.

For enquiries on articles in the Energy Bulletin, please contact Harry Hills – Office of Energy

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