

energy

Bulletin

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Flueless gas space heaters

Recently there was publicity in the media about possible health effects from the use of this type of heater. Indeed there have been discussions between State Governments' health officials and gas safety regulators, including Energy Safety WA, on this subject.

In essence, the principal concern is that excessive levels of nitrogen dioxide and other pollutants may build up in a room where this type of heater is used.

More recently, Energy Safety has written to all relevant national gas industry associations on behalf of the national Gas Technical Regulators Committee (GTRC), asking them to collectively respond to GTRC on the issues identified by health officials.

This resulted in direct discussion between health officials and the gas industry associations. I am advised that the overall outcome is heading towards the conduct of a number of scientific (and independently assessed) field evaluations of the latest flueless gas space heater models of low NOx (nitrous oxides) emission, in realistic operational environments. This should allow the level

of NOx to be monitored and an overall assessment of the suitability of these heaters to be made.

In addition to the above, the Department of Health and Energy Safety are liaising to develop information for consumers with flueless gas heaters, to encourage prudent use. The Department of Housing and Construction, for example, plans to distribute this information to Homeswest tenants before next winter. GTRC is also arranging for new flueless gas space heaters to be fitted with special labels. These will draw attention to the need for the appliances to be used in a prudent manner, such as with some room ventilation and not in areas regularly occupied by young children or persons with respiratory sensitivities.

May I take this opportunity to wish all our readers a Happy Christmas and a successful and safe 2005.



ALBERT KOENIG
DIRECTOR OF ENERGY SAFETY

Energy Safety has appointed a local consulting engineering firm, Qualeng, to assist it to conduct a compliance audit of Western Power's management of its wood pole management system.

The purpose of the audit is to assess Western Power's compliance with Regulation 10 of the Electricity (Supply Standards and System Safety) Regulations 2001, in regard to structural safety of poles.

This is very important from a community electric shock and fire safety perspective.

Energy Safety



Energy Safety audit of Western Power's wood poles

Further to an article in Energy Bulletin No. 31 (issued April 2004), Energy Safety has conducted a tender and appointed a local consulting engineering firm, Qualeng, to assist in an audit of Western Power's management of its wooden power poles.

The purpose of the audit is to assess Western Power's compliance with Regulation 10 of the *Electricity (Supply Standards and System Safety) Regulations 2001*. Since these regulations came into force in January 2002, Energy Safety has progressively enforced them. This wood pole management systems audit is part of that process.

Energy Safety placed advertisements in the press during December 2004 inviting West Australians with an interest in the condition and safety of wooden power poles to take part in the audit. Western Power has an estimated 800,000 wood poles throughout Western Australia to carry power lines.

Energy Safety is auditing Western Power's wood pole management systems to assess if the pole population is being managed in a way that ensures poles are structurally safe throughout their service life.

The compliance audit will check that power poles are being correctly selected, inspected, reinforced and replaced.

Maintaining wood poles is not easy. Issues included rot, termite infestations, breakages and failures of the steel re-enforcement of wood poles.

Community input and comment will be a valuable information gathering part of the process.

Members of the community may participate by completing a questionnaire available from Energy Safety's website. A copy of the questionnaire may also be obtained by e-mail request to the public consultation consultants at woodpoles@millswilson.com.au or by telephoning (08) 9228 1999.

The closing date for submissions from the public is 21 January 2005. The audit is expected to conclude in mid-2005.

Capstone Assessment implementation into WA

'Capstone Assessments' will be implemented in Western Australia during 2005 and will apply to all electrical apprentices enrolled in:

- Certificate III in Electrotechnology Systems Electrician; or

- Certificate III in Engineering – Electrical/Electronic Trade,

and who will complete their indentured training during 2005.

Capstone Assessments are applied to apprentices near the end of their training, typically toward the end of the fourth year of training to confirm that they satisfy specific training outcome requirements for licensing purposes. This avoids the need for separate licensing examinations on completion of training.

In association with Energy Safety, the Department of Education and Training has developed several versions of the Capstone Assessment that will test a combination of practical and theoretical knowledge and skills of electrical apprentices.

The Capstone Assessments specifically comprise:

1. **A knowledge test** – comprising multiple choice and short answer questions assessing the apprentice's underpinning knowledge (as outlined in 32 specified critical capabilities);
2. **A design test** – a task to design the electrical services for a residential or factory development; and
3. **A three-part practical assessment** – requiring demonstration of fundamental knowledge and comprehension of electrical concepts and safety principles.

Whilst there was a small group of apprentices that was assessed by this method in 2004, 2005 will see a much wider implementation of the assessments as an integral part of the training, by Registered Training Organisations in Western Australia.

Persons requiring further information regarding the Capstone Assessment, should contact their relevant registered training organisation or one of the Support Officers at the Apprenticeship and Traineeship Support Network by telephoning (08) 9229 5450.



Commingling of gas

The gas that AlintaGas supplies from its distribution system is provided by two pipelines, the Dampier to Bunbury Natural Gas Pipeline (DBNGP) and the Parmelia Pipeline.

Each pipeline sources its gas from different producers. The DBNGP obtains its gas from the Carnarvon Basin and the Parmelia from the Perth Basin.

As the gas for each pipeline is sourced from a different basin, the quality and energy content of each gas is different, resulting in each gas having a different Higher Heating Value (HHV). DBNGP is typically 40 MJ/m³ and the Parmelia is 38 MJ/m³.

As the gases mix in the distribution system (known as commingling), the HHV of the gas in different parts

of the distribution system is different depending on the quantity and quality of the gas injected from each pipeline.

To ensure that consumers are billed to fairly reflect the HHV of the gas they receive (as all gas is billed on an energy basis), the *Gas Standards Act 1972* was amended to provide for regulations to be made to manage the commingling of gas within the distribution system.

A working group has been established to develop the regulations consisting of a representative from each of Alinta Network Services, Epic Energy, Australian Pipeline trust (APT) and Energy Safety.

The approach being taken in the regulations is for each of the parties

involved in supplying gas to submit to the Director of Energy Safety for approval, a management plan on how they propose to manage the commingling of the gas. The regulations also detail how the HHV is derived and how the variations are managed.

Some difficulty has been experienced in gaining agreement between the parties on what should be included in the regulations in relation to the content of the management plan. However, this has now largely been resolved and should allow drafting of the regulations to be completed in early 2005, thereby putting in place the necessary controls to cover the technical aspects of commingling different gases within the Alinta gas distribution system.

Meeting of the Electrical Regulatory Authorities Council held in Perth

The Electrical Regulatory Authorities Council (ERAC) held its most recent biannual meeting in Perth in November 2004.

ERAC is a national committee of representatives from the eight electrical industry technical and safety regulation (including licensing) jurisdictions across Australia.

ERAC provides a coordinating role for electricity and gas technical and safety regulation, to ensure consistency of approach to the structure, enforcement and reform of key regulatory requirements throughout all States. The Council strives to achieve a uniform regulatory environment for electrical activities for the purpose of achieving acceptable levels of electrical safety, electrical licence reciprocity between jurisdictions, supply quality and energy use efficiency.

At the meeting in Perth, detailed discussions covered subjects such as:

- Electrician training
- Capstone assessment
- Core capabilities for electricians
- Restricted electrical licensing
- Retrofitting of RCDs
- New edition of the Wiring Rules (AS/NZS 3000)
- Earth electrodes
- Insulated pin plugs

- Hazardous area electrical equipment
- Tipping of stoves
- Second hand electrical equipment

Currently, Energy Safety's Director Electricity Kevan McGill is Chairman of ERAC.

The gas industry also has a national committee, the Gas Technical Regulators Committee (GTRC), which has similar functions to ERAC.



ERAC members attending the November 2004 meeting held in Perth

Changes to laws covering energy efficiency requirements for certain electrical products

On 9 November 2004, new requirements were made law in Western Australia in respect of energy efficiency labelling and minimum energy performance standards (MEPS) applicable to certain electrical appliances, industrial equipment and apparatus ("products").

These new requirements are an important contribution to improving Australia's overall efficiency of energy use and to minimising greenhouse gas production through reduced electricity consumption by appliances and equipment.

During 2005, Energy Safety's Inspectors will be conducting inspections and compliance audits to enforce the new and existing MEPS and labelling requirements in retail premises, consumer installations and network operator facilities.

Energy efficiency labelling

The new requirements now specify the standards and the labelling requirements that are applicable to all single phase non-ducted vapour compression air conditioners (ie. labelling is no longer confined to single phase units with a cooling capacity less than 7.5 kW).

It is a breach of the *Electricity Act 1945* to sell, hire, expose or advertise for sale or hire, or cause any of the products to be sold or hired, or exposed or advertised for

sale or hire, if they do not comply with the labelling requirements.

Regulation 4 of the *Electricity Regulations 1947* provides further details of the labelling requirements.

Minimum energy performance standards (MEPS)

From 9 November 2004, the products within the scope of MEPS can only be sold (whether via wholesale, retail or supply/install sales contracts) if they comply with the new minimum energy performance standards (MEPS).

It is a breach of the *Electricity Act 1945* to sell, expose or advertise for sale, or cause to be sold or exposed or advertised for sale such products if they do not meet MEPS. However, new products that do not meet MEPS, which are manufactured and imported prior to 1 October 2004, may be sold until 10 May 2005.

Details on how to obtain MEPS registration for a particular product is available at the Australian Government website <http://www.energyrating.gov.au>.

Products that already have MEPS approval (or are acceptable for sale as being MEPS approved) are detailed at the Australian Government website <http://www.energyrating.gov.au>.

The MEPS levels will be revised for refrigerators and freezers on 1 January 2005 and for air conditioners on 1 October 2007. This revision will mean that more stringent requirements will be introduced and products not meeting this new standard cannot be sold after these dates.

Application for energy efficiency labelling and MEPS

All products within the scope of energy labelling and/or MEPS must be registered. Applications for energy label registration and MEPS compliance should be made to the relevant regulatory authority of New South Wales, Victoria, Queensland or South Australia. (In WA, Energy Safety enforces the laws of those States and the registrations made under them, as provided for under the *Electricity Act (WA)*, as this avoids duplication of effort).

Applications for energy label registration and MEPS compliance are to include:

- test reports or data to the relevant standard (the number of units to be tested varies – see particular requirements by product);
- demonstration that the relevant performance requirements have been met by the model in addition to the measurement of energy consumption;
- a sample label (where applicable);
- demonstration that the product meets the MEPS requirements (where applicable); and
- the prescribed fee.

Further information about energy efficiency requirements is available on Energy Safety's website and the Australian Greenhouse Office website at <http://www.greenhouse.gov.au/applications> (details of existing regulatory requirements covering energy efficiency labelling and MEPS, as well as proposed programs).

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For further information related to Energy Safety's articles, please contact Harry Hills (telephone 08 9422 5208 or email hhills@docep.wa.gov.au).

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