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## Bulletin

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## Electrical Contracting Industry Safety

The Office of Energy was pleased to again sponsor the Electrical Safety Awards at this year's Electrical Contractors Association Awards of Excellence (see article inside this issue).

Electrical Safety Awards were presented to Nu-Power Electrics and Stork Electrical.

These firms achieved a high level of electrical safety for their workforce and their customers, the end users.

The safety awards recognise the special effort the two recipients have made to not only be competitive, but to also excel in safety outcomes.

*(continued on page 4)*

## Electricity (Supply Standards and System Safety) Regulations 2001 Gazetted

Many readers will be aware that this Office has for some years been working to prepare regulations setting out minimum safety requirements and standards of supply for the State's electricity supply industry.

Earlier this year, further and more detailed consultation was conducted on a draft set of such regulations. I am pleased to be able to advise this work resulted in the Government's approval and the gazettal of the *Electricity (Supply Standards and System Safety) Regulations 2001* on 7 December 2001.

The Government has the clear policy objective to improve the level of competition in the Western Australian electricity market. However, any electricity market operating under competition principles needs to have mechanisms to ensure that the community is protected from both a public safety and consumer perspective.

The new regulations are designed to provide those mechanisms by:

- ensuring the safety of the public, consumers and electricity workers in the vicinity of electricity supply infrastructure (eg. high voltage lines, cables and substations); and
- ensuring that consumers receive electricity supplies at acceptable standards of quality (eg. voltage levels and harmonic content, so that appliances will function correctly and safely), reliability and metering accuracy.

The next edition of this Bulletin will carry more information about the new regulations.

ALBERT KOENIG  
DIRECTOR OF ENERGY SAFETY

**Office of  
Energy WA**

## Gasfitting on Vehicles Using CNG and LNG

Developments in the gas industry have always been innovative and the use of CNG (compressed natural gas) and LNG (liquefied natural gas) as a fuel source for heavy vehicles is no exception. Recently, some companies moved to introduce such options for their operations in WA. The following describes some of the regulatory requirements associated with gasfitting work on CNG and LNG installations.

### CNG Installations

CNG fuelled vehicles need to contain one or more high pressure vessels that store the CNG at very high pressure for use as a fuel for the vehicle. The NG is then injected together with air into the engine as fuel. These on-board pressure vessels require regular filling at suitably designed filling stations. The filling stations comprise:

- a compressor to raise the pressure of the gas to approximately 25Mpa;
- bulk high pressure storage vessels to ensure sufficient gas is available for vehicle refuelling; and
- a dispensing system to allow the gas to be transferred to the vehicle storage vessels (which are at approximately 16.5Mpa).

CNG installations for vehicle fuelling therefore typically comprise:

- filling "station" installations; and
- vehicle (on-board) installations,

parts of which will be operating at very high pressures. These must comply with the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* which, for example, require

compliance with Australian Standard AS 2739 and AG 901.

As yet, there is no training available in WA for gas fitters wishing to undertake this work, although it is available in Victoria and New South Wales (further details are available from David Hartley at the Office of Energy, by telephoning 08 9422 5200). If a person would like to undertake this kind of CNG gasfitting work, they require a WA permit or authorisation that has been suitably endorsed for Class P (CNG refuelling installation) or Class E (CNG vehicle installation), as appropriate to the work proposed. This is necessary to demonstrate that the holder is competent to perform the work safely and to safe and prescribed outcome requirements.

It is not acceptable for a person to attempt to use an earlier issue "Certificate of Competency" endorsed for natural gas (or LP Gas, for that matter), for this kind of work. The reason is that, at the time these certificates were still being issued (they ceased being issued in 1999), they did not require any competency in regard to CNG installations, which are quite different to "normal" NG and LP Gas installations.

The Office of Energy is working with industry and training providers to address the training issues for CNG related work. However the limited demand for this type of gasfitting work makes it difficult to have the training readily available in WA. More information will be provided in the near future on this issue.

### LNG Installations

Heavy vehicle fuel systems using LNG have a considerable amount in common with CNG systems as

described above, although pressures in storage containers are considerably lower, as the fuel is stored as a liquid at a temperature of minus 160 degrees Celsius.

Currently, the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* do not set out appropriate standards for vehicle LNG installations. This is because LNG use for this purpose is a completely new development.

The Office of Energy is also working with industry on this issue, to provide appropriate solutions. At this stage, the preferred direction is, subject to the ultimate approval of the Director of Energy Safety, to issue a variation to the prescribed requirements of the regulations so that a suitable international LNG safety standard is used as the basis for safety compliance of the LNG storage and LNG fuel supply installations on vehicles. At this stage, the US code NPFA 57 is being considered, but hopefully one day there will be an Australian Standard or code to refer to in the regulations.

More information will be provided in the future on this issue. For reasons very similar to those explained under "CNG Installations" above, it is not acceptable for persons who are holders of a Certificate of Competency (however endorsed) to attempt to carry out work on either LNG refuelling or on-board vehicle installations.

As this is an entirely new and specialised area, the Office of Energy is planning to issue "Authorisations" endorsed for LNG vehicle systems to those companies which need to have such LNG work carried out. An authorisation is a practical means

for a person (normally at supervisory technical level) to be authorised to organise, supervise and control the particular kind of gasfitting work required in an organisation, in this way ensuring that persons (“supervised gas fitters”) performing gasfitting have been suitably trained and that their work is checked for safety and compliance.

*For further information on licensing for gasfitting on LNG systems for vehicles, please contact David Hartley, Office of Energy, by telephoning 08 9422 5200.*

## Energy Safety WA

Readers will be aware that the Technical & Safety Division of the Office of Energy is to be transferred to the newly formed Department of Consumer and Employment Protection (DOCEP) as part of the Machinery of Government changes.

The transfer is now expected to take place during the first half of 2002.

## New Staff and Offices

In the past few months, there have been a number of staffing changes within the Electrical Inspection Branch of the Technical & Safety Division.

Two new Electrical Inspectors have been appointed. Steve Wheatley and Todd Bell have joined the inspectorate at West Leederville to assist in the work being carried out from that office.

New Senior Electrical Inspectors have been appointed to take up the work in our country offices. Gary Adams and Gary Scott are now operating out of Karratha and Kalgoorlie respectively. Senior Electrical Inspector Ross Reid has

been transferred from Karratha to operate from our Bunbury office.

The Karratha, Kalgoorlie and Bunbury offices are co-located with DOCEP offices.

The Geraldton office (Senior Electrical Inspector Bob Lawrence) is unchanged for the time being.

Contact details for these new offices and contact details for all parts of the Technical & Safety Division are on the Office of Energy’s website.

## Electrician’s Newsletter

The second issue of the Electrician’s Newsletter has been emailed to all electricians registered to receive the newsletter by email.

The Office of Energy has also responded to requests for hardcopies to be made available, by providing quantities to the major electrical accessory sales outlets and electrical training organisations.

The newsletters are available on our website at:  
[www.energy.wa.gov.au/html/body\\_7.13.html](http://www.energy.wa.gov.au/html/body_7.13.html)

The newsletters provide important safety, technical and regulatory information that will be of interest to all electricians. The newsletter is emailed to electricians who have registered their email address with the Office of Energy.

Electrical contractors and electricians may still register their email address to receive future copies of our newsletters. Details should be emailed to:  
[register@energy.wa.gov.au](mailto:register@energy.wa.gov.au)

## Electrical Safety Awards – 2001

The annual Electrical Safety Awards are presented to recognise companies that have demonstrated a commitment to a high level of electrical safety within their organisation and their work output.

The aim of the Awards is to raise awareness of the value of electrical safety within the electrical contracting industry.

The Awards are an initiative of the Electrical Contractors Association and the Office of Energy. The Awards are part of the Electrical Contractors Association’s annual Awards for Excellence.

The first award was presented in 1999 with only one category directed to small to medium sized enterprises. Since 2000, the award has been presented in two categories:

- Category One – Companies with less than ten employees
- Category Two – Companies with more than ten employees.

This year [2001], the winners of the Electrical Safety Awards are:

- Nu-Power Electrics
- Stork Electrical

### **Nu-Power Electrics (Category 1 – Companies with Less Than Ten Employees Safety Award)**

Nu-Power Electrics was successful in this category for demonstrated exceptional management procedures which included detailed safe work procedures, safety isolation procedures and, importantly, testing and checking requirements. Worthy of mention are the company’s occupational safety procedures, which contain a specific requirement that “No employee shall be directed to work in a LIVE situation”.

A commendable safety record provides evidence of the company's active safety management.



*From left to right, Rod Hale, Executive Director, Electrical Contractors Association; Mark Dalglish, Nu-Power Electrics and Albert Koenig, Director of Energy Safety, Office of Energy*

### **Stork Electrical (Category 2 – Companies with More Than Ten Employees Safety Award)**

Stork Electrical has a clear safety process actively involving all levels of the enterprise. Each employee has a clear obligation in regard to safety ranging from senior management and supervisor personal commitment through to shop floor employee participation. Of special note is the review process conducted of past incidents and accidents in order to identify contributing factors. Past reviews and other research showed the "It won't happen to me" culture existed. Mitigating strategies were therefore implemented to further refine the company's safety systems. Stork Electrical's four years zero Lost Time Injury Rate coupled with the

ongoing search for a "better safety way" make the company a worthy recipient of this prestigious award.

These companies are industry role models and worthy of congratulation.



*From left to right, Rod Hale, Executive Director, Electrical Contractors Association; Garry Itzstein, Stork Electrical and Albert Koenig, Director of Energy Safety, Office of Energy*

### **Improved Standards of Safety in the Electrical Contracting Industry**

*(continued from page 1)*

Whilst congratulating the safety efforts of the two award category winners, Nu-Power Electrics and Stork Electrical, it is equally important to acknowledge the safety efforts of the electrical contracting industry in general.

During the last three years, there has been a steady improvement in the safety of electrical work carried out.

Between 1998 and 2000, the percentage of serious installation defects found [through inspections] has decreased from 3.3% to less than 1.0%. This good

result shows that industry is developing a very positive culture for making sure that work is safe to use. It also shows that the Office of Energy's regulatory systems are working to protect the consumer, as well as to protect the contractor who does the work the right way.

In other words, people are realising that if they want to stay in the industry, they need to do the work the right way and compete with others without compromising safety outcomes.

It is also important to acknowledge the positive approach of both the Electrical Contractors Association and Western Power's inspectorate to achieving these standards of safety. During the past twelve months, there has been a high level of cooperation between these organisations and the Office of Energy, to develop good regulatory systems and encourage good industry practices.

It is this kind of cooperation that has enabled the industry to progressively move from the outdated industry practices of ten years ago, when serious defects were relatively frequent even though everything was inspected, to where it is now, with a much more efficient and effective inspection regime and a contracting industry that produces much safer work.

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## Supreme Court Quashes Contractor's "Spent Conviction" Order

For a number of years, the Office of Energy has been concerned that some prosecutions it has initiated for unsafe electrical and gas work had resulted in a "spent conviction" order being issued.

A "spent conviction" order is an order by the Court when the Magistrate considers a particular offence to be minor or trivial and as such, that it should not be recorded as an offence. Spent convictions may also apply where the person is a first time offender. So, whilst the Court recognises that the offence occurred, the matter is dealt with as a spent conviction and therefore not recorded against the particular offender.

In a recent proceedings, electrical contractor C G Ryan was convicted of breaches of regulation 49(1)(a) of the *Electricity (Licensing) Regulations 1991*. As this was a first offence, the Magistrate ordered that a spent conviction order be issued. Given the seriousness of the offences, the Office of Energy appealed the Magistrate's deliberation. The appeal was recently upheld and the following will be of interest to readers.

In his judgement, Justice Hasluck said:

"38 I have already noted that it was, in fact, open to the learned Magistrate to put to one side the question of whether the offences should be characterised as trivial and to look at an alternative avenue of relief allowed for by the previously decided cases, that is to say, that the offender was unlikely to commit such an offence again and was of previous good character. However, it appears

from the decided cases, and especially Tognini, that, even within such a context, the learned Magistrate was obliged to make findings that there was some particular circumstance showing why it was desirable that the adverse effect of the conviction should be immediately set aside. The learned Magistrate had to be conscious also that the power to make a spent conviction order should be exercised sparingly. Finally, and in any event, as appears from *Neale v Sloan* (supra) consideration had to be given to all the circumstances of the case, including the wider interests of the public.

39 In that regard I adopt the reasoning of Parker J in *Riley v Gill*, unreported; SCt of WA; Library No 970731; 8 December 1997 where he had this to say at page 13:

"The occupation which the applicant pursues involves considerable responsibility for safety. There is a public interest in any employer or potential employer being aware of the appellant's conduct of the nature demonstrated by these offences because that conduct has clear relevance in assessing his reliability and suitability for the type of work which he pursues."

40 The transcript suggests that the learned Magistrate did not give sufficient weight to considerations of the kind I have mentioned. Accordingly, I consider that the learned Magistrate fell into error and exercised her discretion in making the spent conviction orders having regard to extraneous considerations. It follows that the grounds of appeal have been made out

and a basis exists for setting aside the decision made.

41 It is apparent from the provisions of the Justices Act, however, that it is open to me to determine whether some other determination should be substituted for the decision made by the learned Magistrate. When I look at the circumstances of the present case, I am not persuaded that the respondent has demonstrated that there is some particular circumstance to show why it would be desirable for the respondent to be relieved of the adverse effect of the conviction. It does not seem likely that he will generally be pressed by employers or those contracting for his services as to whether he has any prior convictions. If that question is asked, however, it seems to me, given the potential hazards of the kind of work a contractor such as the respondent performs, that the person asking the question is entitled to know whether the respondent has previously been involved in circumstances giving rise to a conviction. The licensing system has been set up so as to ensure that the public has a clear understanding about the skills of those undertaking electrical work.

42 In summary, then, I consider that the grounds of appeal have been made out, with the result that the spent conviction orders previously made must be quashed."

This successful appeal should serve as a warning to errant operatives. The Courts are now less likely to order "spent convictions" for serious breaches of the electrical or gas Acts and Regulations.

## Get Ready for Choice

Around 600 businesses in Western Australia will soon be able to choose their gas supplier under changes occurring in the State's gas market.

From 1 January 2002, businesses that consume between 1-100 terajoules per annum will be eligible to choose an alternative gas retailer. Yearly gas usage of 1 TJ represents a gas bill of around \$15 000 under the present system.

Businesses that consume over 100 TJ per annum, including major industrial projects, can already choose who supplies their gas needs.

Six working groups have been formed by the Office of Energy to oversee the changes necessary for

the gas industry in WA to allow full retail contestability, allowing individual households to be able to switch gas suppliers, much like we can now switch between telephone companies.

The working groups are looking at:

1. customer transfer management;
2. gas metering, estimation, allocation and settlement;
3. consumer protection and education;
4. full retail contestability network access;
5. gas retail market services; and
6. interim market rules.

The gas market is being opened to allow gas retailers (or "users") to purchase gas from gas producers. They can then have the gas "transported" to their individual customers via the existing gas

transmission and distribution system, for payment of a transport/haulage fee. The retailer's final bill to such customers then incorporates both the cost of the energy (gas) supplied and the cost of the transport service.

Gas industry operatives will no doubt be aware that AlintaGas has recently restructured and formed two separate subsidiary businesses under AlintaGas Pty Ltd; a gas retailer business and a gas network business. The network business is able to transport gas for other gas retailers, as well as for AlintaGas Sales.

Further information on these changes to the choice of gas supplier is available on the website:

[www.energy.wa.gov.au/grdp](http://www.energy.wa.gov.au/grdp).

## Plastic Licence Cards for Apprentices

Plastic licence cards have now been issued to all electrical and gas apprentices.

This initiative will assist with easily identifying if an apprentice is licensed. It will assist Registered Training Organisations, TAFEs, employers and supervisors to ensure that apprentices are appropriately licensed for the type of electrical or gas work they intend to undertake. The card is more durable and compact than the paper licence that was previously issued to apprentices.

If an apprentice has not received a new plastic licence card, please contact the Licensing Office by telephoning 9422 5282 or by email to [licensing@energy.wa.gov.au](mailto:licensing@energy.wa.gov.au).

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

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