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1 March 2002 to
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Failure of Flexible Pigtails

In the second half of the year 2000, Bromic Pty Ltd carried out a voluntary recall of a hose assembly AGA #5581. The recall action was necessary as the rubber portion of the hose separated from the brass fittings; the mechanical crimping was found to be inadequate.

All stocks of hoses in retail outlets and warehouses were quarantined and returned. However, the recall did not recover all stocks and some of these hoses are still being used.

In a recent incident, one of these hoses being used as a pigtail from a 190 kg bulk tank to the LP Gas regulator failed. The bulk tank was in the sun for most of the day so the pressure inside the tank increased. This caused the rubber hose to separate from the mechanical crimp, discharging LP Gas.

Fortunately, this incident was noticed fairly quickly and the gas turned off, avoiding a catastrophe. The LP Gas supplied a restaurant at a popular destination in the north of the State.

The photos compare the old hose with the brass fitting separated and the new hose. The new hose assembly can be identified by the slightly shorter crimping and the two identifying "O" marks on two sides of the crimps.

When servicing LP Gas installations, these flexible pigtails need to be replaced.

The identifying marks on the hose are:

- BROMIC/A 6.3MM L.P. GAS AS/NZS 1869 CLASS C-WP 2600KPA AGA5581
- INSPECT REGULARLY REPLACE PERIODICALLY – 0599

It should be noted that the rubber portion of the hose is not the problem. It is the crimping that has been identified as being faulty. The date refers to when the rubber hose was manufactured **not** when the assembly was made up by Bromic Pty Ltd.



The new hose assembly (indicated by the biro) can be identified by the slightly shorter crimping



The old hose with the brass fitting separated

EnergySafety



A Milestone for WA – Training for Gasfitting on Compressed Natural Gas Vehicles (CNGV)

After nearly two years of negotiation and development, the first CNGV course was held in Perth in May 2002. The course was made possible through a government grant and local industry cooperation. EnergySafety acted as coordinator to encourage the development of a course to allow local trades people to obtain the specific skills and competencies to satisfy a gasfitting licence in CNGV.

This is a milestone in the government initiative to develop alternative fuels for a cleaner environment in WA. It is also a milestone in the training needs for the WA gas industry for the future. CNGV vehicles are an important and growing part of the heavy vehicle side of the transport industry.

The course was conducted at the business premises of "The Gas Converters" in Canning Vale. Midland College of TAFE, in cooperation with Challenger TAFE, facilitated the program. Industry participants included PathTransit, Advanced Engine Components and Volgren.



Course attendees with course presenters and EnergySafety personnel in front of a CNGV powered vehicle at the premises of "The Gas Converters"

Revised Australian Gas Standards

AS 5601/AG 601 – 2002 Gas installations

AS 3814/AG 501 – 2002 Industrial and commercial gas-fired appliances

These two Australian Standards have been revised and will be brought into the *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999* soon. This requires changes to the regulations. In the meantime, the year 2000 editions of these two standards continue to apply.

The main changes to AS 5601 are:

- The word "Authority" was removed and, where appropriate, was replaced with "Technical Regulator". The Technical Regulator for the purposes of this standard is EnergySafety (ie. the Director of Energy Safety).
- Gas fitters will be required to fit an isolation valve to all hot water services.
- Some clauses were clarified.

The Standard includes a compact disc for extra convenience.

The main change to AS 3814 was:

- The word "Authority" was also removed from this standard and, where appropriate, was replaced with "Technical

Regulator". In WA, the "technical regulator" for the purposes of this standard is EnergySafety (ie. the Director of Energy Safety).

A number of minor changes were also made in this revision.

Gas fitters will need to familiarise themselves with these amended standards in anticipation of their adoption in WA when the regulations are amended.

Another Avoidable Electrical Fatality

A house owner was electrocuted recently in the roof space of his house when he inadvertently came into contact with an exposed live conductor and a copper water pipe.

The man was not doing electrical work. He was installing data cables.

The fatality would have been avoided if the man had simply turned the main switch off before commencing the work.

The roof space of a building, particularly an old type building, can be a dangerous place for anyone, including electricians and gas fitters, because of:

- deteriorated or damaged wiring; or
- exposed joints in wiring.

If you must enter a roof space for any reason, always:

- turn the main switch/es off;
- use a torch to light the work area;
- inspect the work place for hazards; and
- proceed with caution.

Your life is worth more than ten minutes of inconvenience to a client.

ALWAYS TURN THE MAIN SWITCH/ES OFF

Remote Area Gas Installations

EnergySafety is extending its inspection services into remote parts of the State. Staff are visiting remote communities and pastoral stations to check compliance of the gas and electrical installations.

From our reports (see photograph below), we have found many instances of non-compliance, thus compromising levels of safety. It is apparent that authorised plumbers/gas fitters have been rarely seen in these areas.

The Pastoralists and Graziers Association is aware of these inspections. Members of the Association have been contacting the Association for information as to where they can contact authorised plumbers/gas fitters to rectify non-compliant work and service gas appliances.

Important Advice to Autogas Installers

At a recent meeting of Standards Australia Committee ME-046 to discuss the revision of *AS/NZS 1425:1999 LP Gas fuels systems for vehicle engines*, it was suggested that the Motor Vehicle Environment Committee (MVEC) proposal regarding the need for emission testing of aftermarket LP Gas vehicle conversions be circulated to the LP Gas vehicle industry, for comment.

EnergySafety has a copy of the letter from MVEC together with the proposed amendments. Should you wish to obtain a copy of this information with a view to making comment, please contact the EnergySafety Gas Inspection Branch by telephoning (08) 9422 5297.

This is recommended as the proposals, if implemented, would have a significant effect on the aftermarket industry. It is important therefore that all persons involved in the LP Gas conversion industry take the opportunity to assess the proposals.

Danger of Explosion When Cutting Drums

The recent tragic death of a farmer has highlighted the dangers of cutting empty drums with power tools or oxyacetylene cutting gear.

The 60 year old man died early in May this year when a 200-litre drum he was attempting to cut with an angle grinder exploded.

The man had marked a cutting line on the drum and left both bungs secured. The drum had previously contained a flammable substance, and when the angle grinder penetrated the metal, a spark ignited the residual vapours in the drum.

WorkSafe Western Australia Commissioner Brian Bradley stated that the tragic incident needed to serve as a reminder that empty drums had the potential to turn into bombs.

"Cutting into empty drums with power tools or oxyacetylene cutting gear is an extremely dangerous practice and we would advise that it is never undertaken by anyone other than those who specialise in the task," Mr Bradley said.

"If drums have contained flammable liquids like fuel or chemicals, some of the vapours may still be present, even after a period of many years."

"Re-using empty drums has tended to be a common practice on farms. However, WorkSafe does not condone the practice and I strongly urge anyone contemplating cutting a drum to make absolutely sure it has been made safe first."

"In fact, if you have any doubt at all, it is best not to cut the drum."



A non-compliant water heater installation that will require rectification work to be carried out

"If a metal drum containing vapour is cut with a power tool or oxyacetylene cutting gear, a single spark can cause a massive explosion, as unfortunately occurred recently."

Some other safety considerations with regard to empty drums include:

- Drums should be properly labeled at all times, whether empty or not.
- Drums should be stored in a well-ventilated place away from work areas.

- Do not cut any drum that is not labeled as having been properly cleaned.
- Never weld or grind near empty drums – sparks can fly.
- Do not use drums as welding or cutting platforms.
- Do not use drums for storing heavy material.
- Overflowing drums with water is not an effective way of degassing them.
- Make Material Safety Data Sheets (MSDS) available at the workplace.

Mr Bradley concluded, "Empty drums are potential bombs. Our best advice would be to make sure they are completely safe before undertaking any modifications."

PROSECUTIONS FOR BREACHES OF THE GAS STANDARDS ACT 1972 AND GAS STANDARDS (GASFITTING AND CONSUMER GAS INSTALLATIONS) REGULATIONS 1999
1 March 2002 to 31 May 2002

<i>Breach</i>	<i>Name (and suburb of residence at time of offence)</i>	<i>Licence No.</i>	<i>Fine \$</i>	<i>Costs \$</i>
<i>Carried out gasfitting without a certificate of competency, permit or authorisation Section 13A(2) GSA</i>	<i>Philip Robinson (Mandurah)</i>	<i>NLH</i>	<i>\$1,000.00</i>	<i>\$800.00</i>

GSA Gas Standards Act 1972

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