Office of Energy

Office of ENERGY WA

Gas FOCUS

Gas Fitters and Type B Installations

A recent inspection by an Office of Energy Gas Inspector identified an industrial LPG installation that had numerous defects.

The gas installation consisted of an LPG storage tank, first and second stage regulators and gasfitting lines and connection to a hot water boiler (Type B appliance).

The inspection identified serious breaches of the *Gas Standards Regulations 1983*. It was obvious that the gas fitter had failed to:

- adequately support the first stage regulator (Item 415)
- adequately support the gasfitting lines (Item 415)
- install gasfitting lines in a workman-like manner (Regulation 27)
- pipe size the gas installation correctly (Item 401)
- install an over-pressure protection device (opso regulator) (Item 302)
- gain appropriate approval from a designated Gas Inspector to connect a Type B gas appliance (Regulation 29)
- complete the Notice of Compliance correctly (Regulation 21).

It should be noted that when instances of gross negligence are detected, previous gasfitting work carried out by the gas fitter may be audited by Office of Energy Inspectors to ensure that a satisfactory standard of gasfitting work is being maintained.

Gas fitters are reminded that the Certificate of Competency or Permit issued to them is issued on the basis of their skills, knowledge and their competency in gasfitting work. It is clear that the actions of the gas fitter in this particular instance casts doubt upon his competency to carry out this type of gasfitting work.

Gas fitters should not contemplate taking on any commercial or industrial Type B gasfitting work unless they have adequate knowledge and skills to do the work. Accredited training is available at some Technical and Further Education centres and at the Plumbing & Painting Industry Skills and Technology Centre.

Automotive Gas Conversions and Other Mobile Installations

Gas fitters carrying out mobile LPG fitting work are to be commended for the standard of the compliance notices being submitted to the Office of Energy in that they are largely using the new forms as prescribed by the Director of Energy Safety. Also, the forms are mostly being completed correctly. Importantly, most gas fitters undertaking mobile LPG work are now providing registration and/or vehicle/vessel identification numbers to allow identification of the installation.

However, there is still a small number of gas fitters who continue to submit the YELLOW preliminary notice for mobile LPG installations. These gas fitters are reminded that submission of the preliminary notice is NOT REQUIRED FOR ANY LPG (STAND ALONE CYLINDER) INSTALLATION; and that the preliminary and compliance notices carry different declarations. Gas fitters who solely perform LPG fitting work are therefore encouraged to discard the yellow copy immediately upon receipt of each new book of notices.

This action will avoid confusion and ensure that the compliance (blue copy) notice becomes the original document; and is correctly signed. The preliminary and compliance notices are necessarily produced in the combined form to allow the one set of notices for all types of gasfitting work.

Computer/Programmable Electronic Systems of Gas-Fired Appliances

The Australian Gas Association (AGA) is prompting industry to be aware of possible problems with computer/programmable electronic systems in relation to the "Year 2000 Problem" (Millennium Bug or Y2K Issue).

In its letter to equipment suppliers, the AGA includes the following advice which also has relevance for others:

You should be aware that where such equipment/componentry performs safety-related functions, it is imperative that it continues to provide an adequate level of safety for the post-1999 period. I am advised that, in some cases, problems could occur prior to the year 2000 (eg. 9/9/99) and you should similarly be aware of this.

Examples of safety-related functions include:

INPUTS
Combustion Air Pressure Switches
Purge Air Pressure Switches
High Gas Pressure Switches
Low Gas Pressure Switches
Low Water Level Switches
High and Low Damper Position Proving Limit Switches
Flame Signals
Over Pressure Sensing Devices (eg. for steam boilers or furnaces)
Over Temperature Sensing Devices

OUTPUTS
Purge Time
Burner Permissive
Main and Pilot Gas Valves
Ignition
Variable Speed Combustion Air Fans
Pressure proving System Gas Valves
Gas Turbine Lube-Oil Pumps

Where computer/programmable electronic systems fail-safe, the potential for injury (or worse) is minimised. However, there is an increasing view that not enough is being done by manufacturers and/or providers of equipment incorporating these types of components to ensure Year 2000 compliance or a fail-safe situation in the event of non-compliance.

You would appreciate that the unexpected, or out of sequence, operation of an appliance could have serious consequences, either directly or indirectly. Accordingly, you should take steps now (if you haven't done so already) to assess the safety aspects of your past and present products for the coming years. Where problems or potential problems are identified, it is your responsibility to ensure a suitable program is implemented to minimise any safety hazard.

At the very least, you would be expected to formally identify, and urgently contact, those of your customers for whom the safety-related functions of currently used gas appliances and/or equipment might be compromised. Failure to take all reasonable steps to minimise the potential for your products to cause personal and/or property damage might be construed as negligent and have serious consequences.

This advice is intended to help you understand the seriousness of the Y2K problem (if you hadn't realised it beforehand) and hopefully ensure your section of the gas industry is prepared for, and committed to, appropriate solutions for such an extraordinary but significant issue. Accordingly, would you please provide a brief written explanation of the steps you have taken (or are going to take) to ensure confidence in the safety of your past and present products.

Finally, I would encourage you to source and review some of the more authoritative publications regarding the Y2K issue. You may find the Standards Australia publication MP77 - A definition of Year 2000 conformity requirements, helpful.

- Australian Gas Association

Those in industry who deal with, or are associated with, programmable electronic system (PES) controlled gas fired equipment, possibly as a service provider or user, should take account of this advice from the AGA and consult the system suppliers and/or designers.