Construction and Approval Standard for ‘Stand By’ Gas Systems on Natural Gas Installations

Introduction

Any natural gas supply emergency has the potential to cause substantial interruption to business. Subsequently large gas consumers may want to mitigate this operational risk by incorporating alternative gas supplies and management systems within initial gas installation designs. Acceptance of alternative installation and procedures by the Director of Gas Safety in accordance with Section 77 of the Gas Act 2000 prior to a supply emergency, will allow timely conversion of the gas installation to ‘stand by’ gas should the situation arise.

To provide acceptance the Director of Gas Safety will require both the person carrying out the initial gas-fitting work, and the owner/operator of the complex gas installation, to provide specific details for the operation of any ‘stand by’ gas system. The application must include a procedure for the modification of the complex gas installation to ‘stand by’ gas.

Applicable Standards

- AS 5601 - Gas Installations
- AS 3814 - Industrial and Commercial Gas-Fired Appliances
- any other Standard nominated by the Director of Gas Safety.

Gas System Design

Prior to gas installation construction the following people should collaborate and reach consensus to ensure that all safety requirements are included in the design:
1. the person carrying out the gas-fitting work  
2. the installation owner/operator  
3. a representative from the gas distributor (i.e. Tas Gas Networks)  
4. an authorised officer from Gas Standards and Safety.

### Acceptance of the Complex Gas Installation

An application for the acceptance for the complex gas installation must be submitted to the Director of Gas Safety for approval under Section 77 of the *Gas Act 2000* prior to commissioning. This application must include details on:

- isolation of natural gas supply  
- connection of the ‘stand by’ gas supply  
- conversion of the installation/appliance to the ‘stand by’ gas  
- restoration of the natural gas supply  
- piping and instrument diagrams including typical valve arrangements (see Diagram 1)

### Installation

The installation of the complex gas installation and gas appliances must be undertaken by an appropriately licensed gas-fitter. The gas-fitter must submit a signed statement of compliance to:

- the owner of the installation (as soon as the installation is commissioned), and within 48 hours to:
  - the gas distributor; and
  - the Director of Gas Safety.

### Notification

When a gas installation and gas appliances are converted or modified to accommodate the use of ‘stand by’ gas, the gas-fitter in all circumstances must notify Gas Standards and Safety and the distribution system operator as soon as practicable.

When a conversion to ‘stand by’ gas is completed, the person carrying out the gas-fitting work must submit a statement of compliance for the conversion to:

- the owner of the installation (as soon as the installation is commissioned) and within 48 hours to:
  - the gas distributor; and
  - the Director of Gas Safety.

This also applies when converting back to natural gas.
Diagram 1

Typical ‘stand by’ gas general arrangement

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