

### **New Industry Beverage Dispensing Standard (Inert Gases)**

A new Australian Standard, known as *AS5034: Installation and use of inert gases for beverage dispensing* came into effect on 28 October 2005. It sets out the requirements for the use of inert gases for beverage dispensing and looks at all areas associated with the hazards of compressed and refrigerated gases.

Compressed inert gas systems consists of:

- **Supply systems** - cylinders (single and multiple, refrigerated liquid CO<sub>2</sub> supply, on-site gas generation and mixing and compressed air;
- **Distribution systems** - regulator boards, safety devices and piping;
- Dispensing applications - post mix and ready to drink (pre-mix) applications, bottled wine dispensing, draught beer and ready to drink kegs.

Due to all gas systems being under pressure, it is possible that the system and equipment connections may develop leaks, causing build up of inert gases in cellars and low level areas which presents hazards for personnel working in those areas. The Standard was developed in response to a coronial inquiry into the death of a cellar worker from Victoria who died in a gas leakage.

The group that developed the Standard included business groups such as the Australian Chamber of Commerce and Industry, Victorian and New South Wales WorkCover Authorities, gas suppliers, insurers and breweries who all recognise the importance of safety in the workplace.

The Standard covers a number of areas including:

#### **1. Design, Installation and testing including location and design of dispensing systems**

Key design requirements such as protecting dispensing systems from over pressure and back glow and being able to isolate key areas are required to comply with AS5034. By improving system design and increasing regular maintenance, the risks associated with an inert gas dispensing system will be further reduced.

#### **2. Location and ventilation of supply systems including gas detection and emergency procedures**

The preferred location of all inert gas (cylinders and mini-bulk) systems is outside in a well ventilated area. Specifications are provided for the ventilation requirements of a cellar. The Requirements affect where the gas is located and whether your area will need monitoring. Most venues will need a monitor in both their cellar and cool room to comply to AS5034 even if your gas is stored outside. Storage areas that cannot comply with the ventilation requirements will require gas monitoring and ventilation devices.

#### **3. System operation and maintenance including maintenance records**

Weekly leak checks must be performed by the venue and more complex six monthly maintenance is required e.g. to calibrate your monitor and check safety valves. Twelve monthly maintenance including a pipeline pressure test is also required to meet AS5034. All maintenance records must be kept for at least two years.

#### **4. Signage**

Systems need to be labelled and appropriately signed. Examples of signs required include warning notices, operating instructions, inert gas warning signs, safe operating procedures, isolation valves, safety valves and pipeline contents.

#### **5. Training of staff and contractors**

AS5034 requires all staff to be trained in manual handling procedures, the properties and hazards of inert gases and the correct use of Personal Protective Equipment (PPE). There are also training requirements for any contractors entering a venue.

### **Compliance Dates**

The new requirements are phased in, depending on location and ventilation properties of storage and cellar areas:

1. Non-naturally ventilated areas need to be compliant by the **end of 2007**;
2. Gas operated pumps requiring exhaust to the outside areas by **end of 2007**; and
3. All other areas requiring compliance improvements by the **end of 2011**.

Existing installed equipment should be assessed for risk, and should be updated to conform to the new Standard. Rectification may involve installing a gas monitor, displaying signage or relocating gas storage to an outside area, where costs will vary from venue to venue. Therefore, hotels are recommended to seek professional advice to assess levels of compliance and to ensure that costs are minimised.