

## CHANGEOVER TO COMMERCIAL – INFORMATION FOR CANDIDATES

Commercial ACS criteria are the **same** as domestic for the following topics:

- Gas Safety (Installation and Use) Regulations 1998
- Properties of natural gas
- Dangers of gas
- Gas Industry Unsafe Situations Procedure
- Operating pressures (for standard appliances)
- Gas rate and heat input
- Combustion analysis (for standard appliances)

Commercial criteria and standards are **different** from domestic in the following areas:

- Ventilation (e.g. mechanical ventilation)
- Flues (e.g. shared flues)
- Pipework (including pipe sizing)

Commercial gas is **more extensive** (larger in size and range) regarding:

- Appliance types (e.g. radiant heaters)
- Safety controls and control systems (e.g. interlocks, non-return valves, etc.)
- Tightness testing and purging (e.g. use of purge stacks)
- Pipework materials and types of fitting (e.g. flanges, welding)
- Ambient/atmospheric testing (e.g. CO<sub>2</sub> testing for flueless appliances)
- Areas of work (e.g. educational establishments, hazardous areas, etc.)
- Specialist process burners and appliances (non-standard appliances)
- Higher operating pressures (e.g. systems incorporating boosters)

*Note: a “standard” appliance is one that works at a nominal inlet working pressure of 20 mbar and which produces heat by complete combustion (e.g. a central heating boiler). A “non-standard” appliance may work at elevated pressures and/or be designed to produce incomplete combustion for a specialist industrial process.*

Very small commercial systems fall under standards normally used for domestic installations. For example, an office with only a 30 kW boiler connected by 22 mm copper to a G4 meter may be tightness tested and purged according to IGEM/UP/IB while the appliance’s ventilation and flue come under BS 5440. For this reason, core commercial criteria include tightness testing and purging of domestic-sized systems.

## **INITIAL COMMERCIAL TRAINING – 5 DAY SCHEDULE**

**Mon-Tue ICPNI**

Gas pipework design and installation to IGEM/UP/2

**Tue-Wed TPCPIA**

Gas pipework strength testing, tightness testing and purging to IGE/UP/IA

**Thu-Fri CORE, CIGAI, CORTI, CDGAI**

Domestic-similar subjects (revision)

- Gas Industry Unsafe Situations Procedure
- Operating pressures (for “standard” commercial installations)
- Gas rate and heat input
- Tightness testing and purging of very small systems

Ventilation to BS 6644 and IGEM/UP/10

Air quality testing (ambient CO<sub>2</sub>)

Controls

Flues to BS 6644 and IGEM/UP/10

Forced convection air heaters

Radiant heaters

Fan dilution systems and boiler houses