

## CHAPTER 3

### GENERAL REQUIREMENTS

#### 301.0 Scope.

This chapter covers general requirements for heating, ventilating, air-conditioning, refrigeration, miscellaneous heat-producing, and energy-utilizing equipment. Such equipment shall conform to the requirements of this code.

Equipment shall not be installed or altered in violation of this code, nor shall the fuel input rate to equipment be increased in excess of the approved Btu/h (kW) rating at the altitude where it is being used.

Defective material or parts shall be replaced in such a manner as not to invalidate any approval.

#### 302.0 Approval.

**302.1 How Obtained.** Each appliance shall be approved by the Authority Having Jurisdiction for safe use or comply with applicable nationally recognized standards as evidenced by the listing and label of an approved agency. A list of accepted standards is included in Chapter 17.

**302.2 Complying Design of Equipment.** Installers shall furnish satisfactory evidence that the appliance is constructed in conformity with the requirements of this code. The permanently attached label of an approved agency may be accepted as such evidence.

**302.3 Oil-Burning Appliances.** The tank, piping, and valves for appliances burning oil shall be installed in accordance with the requirements of NFPA 31, Standard for the Installation of Oil-Burning Equipment.

#### 303.0 Connecting Gas Equipment.

**303.1** Gas utilization equipment shall be connected to the building piping in compliance with Section 1312.4 by one of the following:

- (1) Rigid metallic pipe and fittings.
- (2) Semi-rigid metallic tubing and metallic fittings. Aluminum alloy tubing shall not be used in exterior locations.
- (3) Listed connectors used in accordance with the terms of their listing that are completely in the same room as the equipment.
- (4) Listed gas hose connectors in accordance with Section 303.2.
- (5) Gas-fired food service (commercial cooking) equipment listed for use with casters or otherwise subject to movement for cleaning,

and other large and heavy gas utilization equipment that can be moved, shall be connected in accordance with the connector manufacturer's installation instructions using a listed appliance connector complying with ANSI Z21.69, Standard for Connectors for Movable Gas Appliances.

- (6) In Sections 303.1(2), (3), and (5), the connector or tubing shall be installed so as to be protected against physical and thermal damage. Aluminum alloy tubing and connectors shall be coated to protect against external corrosion where they are in contact with masonry, plaster, or insulation or are subject to repeated wettings by such liquids as water (except rainwater), detergents, or sewage.

**303.2 Use of Gas Hose Connectors.** Listed gas hose connectors shall be used in accordance with the terms of their listing and as follows:

- (A) **Indoor.** Indoor gas hose connectors shall be permitted to be used with laboratory, shop, or ironing equipment that requires mobility during operation. An equipment shutoff valve shall be installed where the connector is attached to the building piping. The connector shall be of minimum length and shall not exceed 6 feet (1.8 m). The connector shall not be concealed and shall not extend from one room to another or pass through wall partitions, ceilings, or floors.
- (B) **Outdoor.** Outdoor gas hose connectors shall be permitted to be used to connect portable outdoor gas-fired equipment. An equipment shutoff valve, a listed quick-disconnect device, or a listed gas convenience outlet shall be installed where the connector is attached to the supply piping and in such a manner so as to prevent the accumulation of water or foreign matter. This connection shall only be made in the outdoor area where the equipment is to be used.

#### 303.3 Connection of Portable and Mobile Industrial Gas Equipment.

- (A) Portable industrial gas utilization equipment or equipment requiring mobility or subject to vibration shall be permitted to be connected to the building gas piping system by the use of flexible hose suitable and safe for the conditions under which it can be used.