

## CHAPTER 19

# SPECIAL FUEL-BURNING EQUIPMENT

### SECTION M1901 RANGES AND OVENS

**M1901.1 Clearances.** Freestanding or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches (762 mm) to unprotected combustible material. Reduced clearances are permitted in accordance with the *listing* and *labeling* of the range hoods or *appliances*.

**M1901.2 Cooking appliances.** Household cooking *appliances* shall be *listed* and *labeled* and shall be installed in accordance with the manufacturer's installation instructions. The installation shall not interfere with *combustion air* or access for operation and servicing.

### SECTION M1902 SAUNA HEATERS

**M1902.1 Locations and protection.** Sauna heaters shall be protected from accidental contact by persons with a guard of material having a low thermal conductivity, such as wood. The guard shall have no substantial effect on the transfer of heat from the heater to the room.

**M1902.2 Installation.** Sauna heaters shall be installed in accordance with the manufacturer's installation instructions.

**M1902.3 Combustion air.** *Combustion air* and venting for a nondirect vent-type heater shall be provided in accordance with Chapters 17 and 18, respectively.

**M1902.4 Controls.** Sauna heaters shall be equipped with a thermostat that will limit room temperature to not greater than 194°F (90°C). Where the thermostat is not an integral part of the heater, the heat-sensing element shall be located within 6 inches (152 mm) of the ceiling.

### SECTION M1903 ENGINE AND GAS TURBINE-POWERED EQUIPMENT

**M1903.1 Powered equipment.** Permanently installed equipment powered by internal combustion engines and turbines shall be listed and labeled and shall be installed in accordance with the manufacturer's installation instructions.

### SECTION M1904 SMALL CERAMIC KILNS

**M1904.1 General.** The provisions of this section apply to unlisted kilns used for ceramics that have a maximum interior volume of 20 cubic feet (0.57 m<sup>3</sup>).

**M1904.2 Fuel-gas controls.** Standing pilots shall not be used with gas-fired kilns.

**M1904.3 Electric equipment.** All electric equipment used as part of, or in connection with, the installation of a kiln shall be in accordance with the *Electrical Code*.

**M1904.4 Installation inside building.** In addition to other requirements specified in this section, interior installation shall meet the following requirements:

**M1904.4.1 Kiln clearance.** The sides and tops of kilns shall be located a minimum of 18 inches (457 mm) from any noncombustible wall surface and 3 feet (914 mm) from any combustible wall surface. Kilns shall be installed on noncombustible flooring consisting of at least 2 inches (51 mm) of solid masonry or concrete extending at least 12 inches (305 mm) beyond the base or supporting members of the kiln.

**Exception:** These clearances may be reduced, provided the kiln is installed in accordance with its listing or to acceptable conclusions of testing reports submitted to the building official. In no case shall the clearance on the gas or electrical control side of a kiln be reduced to less than 30 inches (762 mm).

**M1904.4.2 Hoods.** A canopy-type hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than 0.024-inch (0.61 mm) (No. 24 U.S. gage) galvanized steel or equivalent and be supported at a height of between 12 inches (305 mm) and 30 inches (762 mm) above the kiln by noncombustible supports.

**Exception:** Electric kilns installed with listed exhaust blowers may be used when marked as being suitable for the kiln and installed in accordance with the manufacturer's instructions.

**M1904.4.3 Gravity ventilation ducts.** Each hood shall be connected to a gravity ventilation duct extending in a vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than  $\frac{1}{15}$  of the face opening area of the hood. The duct shall terminate a minimum of 12 inches (305 mm) above any portion of a building within 4 feet (1219 mm) and terminate no less than 4 feet (1219 mm) from any openable windows or other openings into the building or adjacent property line. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports.

**M1904.4.4 Makeup air.** Provision shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed through the kiln hood.

**M1904.4.5 Hood and duct clearances.** Every hood and duct serving a fuel-burning kiln shall have a clearance from combustible construction of at least 18 inches (457 mm).

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This clearance may be reduced in accordance with Figure M1306.1 and Table M1306.2.

**M1904.5 Exterior installation.** Kilns shall be installed with minimum clearances as specified in Section M1904.4.1. Whenever a kiln is located under a roofed area and is partially enclosed by more than two vertical wall surfaces, a hood and gravity ventilation duct shall be installed to comply with Sections M1904.4.2, M1904.4.3 and M1904.4.5.

### SECTION M1905 STATIONARY FUEL CELL POWER PLANTS

**M1905.1 General.** Stationary fuel cell power plants having a power output not exceeding 1,000 kW, shall be tested in accordance with ANSI Z21.83 and shall be installed in accordance with the manufacturer's installation instructions and NFPA 853.

### SECTION M1906 GASEOUS HYDROGEN SYSTEMS

**M1906.1 Installation.** Gaseous hydrogen systems shall be installed in accordance with the applicable requirements of Sections M1307.4 and M1903.1 and the *Mechanical Code*, the *Fire Code* and the *Building Code*.