

NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, 2009 edition.

NFPA 90B, *Standard for the Installation of Warm Air Heating and Air-Conditioning Systems*, 2009 edition.

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2008 edition.

NFPA 5000[®], *Building Construction and Safety Code*[®], 2009 edition.

2.3 Other Publications.

2.3.1 ASHRAE Publications. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329-2305.

ASHRAE Handbook: HVAC Systems and Equipment, 2004.

2.3.2 ASTM Publications. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM C 27, *Standard Classification of Fireclay and High-Alumina Refractory Brick*, 1993.

ASTM C 199, *Standard Test Method for Pier Test for Refractory Mortars*, 1994.

ASTM C 315, *Standard Specification for Clay Flue Linings*, 1991.

ASTM C 476, *Standard Specification for Grout for Masonry*, 2002.

ASTM C 1261, *Standard Specification for Firebox Brick for Residential Fireplaces*, 1994.

ASTM E 136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*, 1994.

ASTM E 1602, *Standard Guide for Construction of Solid Fuel Burning Masonry Heaters*, 2003.

2.3.3 UL Publications. Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 103, *Standard for Factory-Built Chimneys for Residential Type and Building Heating Appliances*, 2001, with revisions through June 2006.

ANSI/UL 127, *Standard for Factory-Built Fireplaces*, 2008.

UL 378, *Standard for Draft Equipment*, 2006.

UL 959, *Standard for Medium Heat Appliance Factory-Built Chimneys*, 2001, with revisions through September 2006.

2.3.4 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 31, *Standard for the Installation of Oil-Burning Equipment*, 2006 edition.

NFPA 54, *National Fuel Gas Code*, 2009 edition.

NFPA 85, *Boiler and Combustion Systems Hazards Code*, 2007 edition.

NFPA 5000[®], *Building Construction and Safety Code*[®], 2009 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall

be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition; shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.3 General Definitions.

3.3.1* Accessible (for Inspections). Capable of being exposed for inspection, maintenance, or repair without damage to the chimney or building structure or finish, but which may require the removal of doors, panels, or coverings using commonly available tools.

3.3.1.1* Readily Accessible (for Inspections). Exposed, or capable of being exposed, for operation, inspection, maintenance, or repair without the use of tools to open or remove doors, panels, or coverings.

3.3.2 Air.

3.3.2.1 Combustion Air. The air necessary to provide for the complete combustion of fuel and usually consisting of primary air, secondary air, and excess air.

3.3.3 Appliance. Any device that utilizes a fuel to produce light, heat, power, refrigeration, or air conditioning.

3.3.3.1 Counter Appliance (Gas). Appliances such as gas-operated coffee brewers and coffee urns and any appurtenant water-heating equipment, food and dish warmers, hot plates, and griddles.

3.3.3.2* Direct Vent Appliance. A system consisting of an appliance, combustion air and flue gas connections between the appliance and the outside atmosphere, and a vent cap supplied by the manufacturer, and constructed so that all air for combustion is obtained from the outside atmosphere and all flue gases are discharged to the outside atmosphere.

10.7 Special Venting Arrangements.**10.7.1 Direct Vent Appliances Fired with Gas, Oil, or Pellet Fuels.**

10.7.1.1 Direct vent appliances shall be listed and installed in accordance with their listing and the manufacturer's instructions.

10.7.1.2 The vent terminal of a direct vent appliance with an input of 10,000 Btu/hr (2930 W) or less shall be located at least 6 in. (152 mm) from any opening into a building, and such an appliance with an input of over 10,000 Btu/hr (2930 W) but not over 50,000 Btu/hr (14,650 W) shall be located not less than 9 in. (229 mm) from any opening through which vent gases could enter a building, and the vent terminal of such appliance having an input over 50,000 Btu/hr (14,650 W) shall be located not less than 12 in. (305 mm) from the opening.

10.7.1.3 The bottom of the vent terminal and the air intake shall be located at least 12 in. (305 mm) above grade.

10.7.2 Ventilating Hoods and Exhaust Systems.

10.7.2.1* Where ventilating hoods and exhaust systems serving commercial cooking appliances are used to vent gas-burning appliances installed in commercial applications, the connector from the appliance shall terminate under the hood not less than 18 in. (457 mm) from any grease filter or screen installed in the hood.

10.7.2.2 Where automatically operated appliances, such as water heaters, are vented through natural draft ventilating hoods, dampers shall not be installed in the ventilating system.

10.7.2.3 Where automatically operated appliances, such as water heaters, are vented through a ventilating hood or exhaust system equipped with a mechanical exhaust system, the appliance control system shall be interlocked to allow appliance operation only when the mechanical exhaust system is in operation. [See 10.4.5(3).]

10.7.2.4 A ventilating hood shall be installed above an open-top broiler in a residence.

10.7.2.4.1 The hood shall be made with tight joints and shall be constructed of copper with a thickness not less than 24 B & S gauge [0.0201 in. (0.51 mm)] or of galvanized steel with a thickness not less than 28 gauge [0.016 in. (0.406 mm)].

10.7.2.4.2 A clearance of not less than ¼ in. (6.4 mm) between the hood and the underside of combustible material or metal cabinets shall be provided.

10.7.2.4.3 The vertical clearance above the broiler to the underside of combustible material or a metal cabinet protected by the hood shall be not less than 24 in. (610 mm).

10.7.2.4.4 The width and breadth of the hood shall be not less than that of the open-top broiler unit.

10.7.2.4.5 The hood shall be centered over the unit.

10.7.2.4.6 The hood shall be exhausted directly through an outside wall to the outside or connected to a suitable chimney flue used for no other purpose. The connecting duct shall conform to the following:

- (1) Connecting ducts shall be made of galvanized steel not less than 28 gauge [0.016 in. (0.406 mm)].
- (2) A clearance of not less than 6 in. (152 mm) shall be provided between the exhaust duct and unprotected combustible material.

Exception: This clearance shall be permitted to be reduced where the combustible material is protected in accordance with Table 9.5.1.2.

10.7.3 Clothes Dryers.

10.7.3.1 All ducts expelling lint shall be provided with a lint collector.

10.7.3.2 Requirements for gas-fired clothes dryer exhaust shall be in accordance with NFPA 54, *National Fuel Gas Code*.

10.7.3.3 All clothes dryers shall be exhausted to the outside air.

10.7.3.4 A clothes dryer exhaust duct shall not be connected into any chimney connector, vent connector, chimney, or vent.

10.7.3.5 Ducts for exhausting clothes dryers shall not be put together with sheet metal screws or other fastening means that extend into the duct.

10.7.3.6 Exhaust ducts for clothes dryers shall meet the following criteria:

- (1) They shall be constructed of rigid sheet metal or other noncombustible material and shall have a smooth interior surface.
- (2) They shall have a minimum thicknesses equivalent to No. 24 galvanized steel gauge [0.024 in. (0.61 mm)] for Type 2 ducts and No. 28 gauge [0.016 in. (0.406 mm)] for Type 1 ducts.

10.7.3.7 Electrical wires shall maintain a minimum 1 in. (25 mm) clearance from exhaust ducts for Type 1 clothes dryers.

10.7.3.8 Transition ducts used to connect the dryer to the exhaust duct shall be listed for that application or installed in accordance with the clothes dryer manufacturer's installation instructions.

10.7.3.9 Exhaust ducts for Type 2 clothes dryers shall have a clearance of at least 6 in. (152 mm) to combustible material.

10.7.3.9.1 If such a duct passes through a wall, floor, or partition constructed of combustible material, all such material in the wall, floor, or partition shall be cut away from the duct to provide a clearance of at least 6 in. (152 mm), and the opening shall be closed in accordance with 10.7.3.10.

10.7.3.9.2 Exhaust ducts for Type 2 clothes dryers shall be permitted to be installed with reduced clearances to combustible material, provided the combustible material is protected as described in Table 9.5.1.2.

10.7.3.10 Where ducts pass through walls, floors, or partitions, the space around the duct shall be sealed with noncombustible material.

10.7.3.11 The following shall apply to multiple installations of Type 1 and Type 2 clothes dryers:

- (1) The installations shall be made in a manner to prevent adverse operation due to backpressures that might be created in the exhaust.
- (2) Common exhaust vents that pass through floors of buildings requiring the protection of vertical openings shall be enclosed with approved walls having a fire resistance rating of not less than the following:
 - (a) 1 hour, where such chimneys are located in a building less than four stories in height
 - (b) 2 hours, where such chimneys are located in a building four or more stories in height

