

#### Marginal Markings

Solid vertical lines indicate technical changes from 2012 IBC.

Dashed vertical lines indicate technical changes in Seattle amendments.

➔ Solid deletion arrow indicates IBC text has been deleted.

⇨ Hollow arrow indicates Seattle amendments have been deleted.

#### Text Markings

Underlining indicates Seattle amendments. ADULT FAMILY HOME.

Italics indicate a defined term. A *dwelling* licensed.

Strikethrough indicates Seattle deletions. ((~~ADULT FAMILY HOME~~))

A bracketed and underlined W indicates Washington state amendments. [W]

## CHAPTER 10 CHIMNEYS AND FIREPLACES

**Note: this chapter includes only those sections of the 2015 International Residential Code for which amendments are proposed.**

### SECTION R1001 MASONRY FIREPLACES

**R1001.7 Lintel and throat.** Masonry over a fireplace opening shall be supported by a lintel of noncombustible material. The minimum required bearing length on each end of the fireplace opening shall be 4 inches (102 mm). The fireplace throat or damper shall be located not less than 8 inches (203 mm) above the lintel.

**[W]R1001.7.1 Damper.** Masonry fireplaces shall be equipped with a ferrous metal damper located not less than 8 inches (203 mm) above the top of the fireplace opening. Dampers shall be installed in the fireplace or the chimney venting the fireplace, and shall be operable from the room containing the fireplace. Fireplaces shall be provided with each of the following:

1. Tightly fitting flue dampers, operated by a readily accessible manual or approved automatic control.  
Exception: Fireplaces with gas logs shall be installed in accordance with the *International Mechanical Code* Section 901, except that the standards for liquefied petroleum gas installations shall be NFPA 58 (*Liquefied Petroleum Gas Code*) and NFPA 54 (*National Fuel Gas Code*).
2. An outside source for combustion air ducted into the firebox. The duct shall be at least 6 square inches, and shall be provided with an operable outside air duct damper.
3. Site built fireplaces shall have tight-fitting glass or metal doors, or a flue draft induction fan or as approved for minimizing backdrafting. Factory built fireplaces shall use doors listed for the installed appliance.

### SECTION R1002 MASONRY HEATERS

**[W]R1002.2 Installation.** Masonry heaters shall be installed in accordance with this section and shall be a masonry heater type approved by the Department of Ecology. Masonry heaters shall comply with one of the following:

- Masonry heaters shall comply with the requirements of ASTM E 1602.
- Masonry heaters shall be *listed* and *labeled* in accordance with UL 1482 or CEN 15250 and installed in accordance with the manufacturer's instructions.

**[W]R1002.2.1 Combustion air and doors.** Masonry heaters shall be provided with both of the following:

1. Primary combustion air ducted from the outside of the structure to the appliance.
2. Tight fitting ceramic glass or metal doors. Flue dampers, when provided, shall have an external control and when in the closed position shall have a net free area of not less than 5% of the flue cross sectional area.

## SECTION R1004 FACTORY-BUILT FIREPLACES

**[W]R1004.1 General.** Factory-built fireplaces shall be *listed* and *labeled* and shall be installed in accordance with the conditions of the *listing*. Factory-built fireplaces shall be tested in accordance with UL 127.

**R1004.1.1 Emission Standards for Factory-built Fireplaces.** No new or used factory-built fireplace shall be installed in Washington state unless it is certified and labeled in accordance with procedures and criteria specified in ASTM E2558 Standard Test Method for determining particulate matter emission from fires in low mass wood burning fireplaces.

To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington state Department of Ecology (DOE) approved and U.S. Environmental Protection Agency (EPA) accredited laboratory.

**R1004.1.2 Emission Standards for Certified Masonry and Concrete Fireplaces.** Masonry and concrete fireplace model lines certified to Washington State Building Code Standard 31-2 prior to July 1, 2013, may retain certification provided the design and construction specifications of the fireplace model line internal assembly do not change.

## SECTION R1006 EXTERIOR AIR SUPPLY

**R1006.1 Exterior air.** Factory-built or masonry fireplaces covered in this chapter shall be equipped with an exterior air supply to ensure proper fuel combustion unless the room is mechanically ventilated and controlled so that the indoor pressure is neutral or positive.

~~**[W](R1006.1.1 Factory-built fireplaces.** Exterior combustion air ducts for factory built fireplaces shall be a *listed* component of the fireplace and shall be installed in accordance with the fireplace manufacturer's instructions.~~

~~**R1006.1.2 Masonry fireplaces.** *Listed combustion air* ducts for masonry fireplaces shall be installed in accordance with the terms of their *listing* and the manufacturer's instructions.~~

~~**R1006.2 Exterior air intake.** The exterior air intake shall be capable of supplying all *combustion air* from the exterior of the *dwelling* or from spaces within the *dwelling* ventilated with outdoor air such as nonmechanically ventilated crawl or *attic* spaces. The exterior air intake shall not be located within the garage or basement of the dwelling. The exterior air intake, for other than listed factory built fireplaces, shall not be located at an elevation higher than the firebox. The exterior air intake shall be covered with a corrosion resistant screen of ¼ inch (6.4 mm) mesh.)~~

**[W] R1006.2 Solid fuel burning appliances and fireplaces.** Solid-fuel-burning appliances and fireplaces shall be provided with tight-fitting metal or ceramic glass doors, and:

1. A source from outside the structure of primary combustion air, connected to the appliance as per manufacturer's specification. The air inlet shall originate at a point below the fire box. The duct shall be 4 inches or greater in diameter, not exceed 20 feet in length, and be installed as per manufacturer's instructions;  
or
2. The appliance and manufacturer's recommended combustion air supply, as an installed unit, shall be certified by an independent testing laboratory to have passed Test No. 11-Negative Pressure Test, Section 12.3, of ULC S627-M1984 "Space Heaters for Use with Solid Fuels," modified as follows:
  - 2.1 Negative pressure of 8 Pascal shall be initially established with the chamber sealed and the air supply, if not directly connected to the appliance, closed off.
  - 2.2 The air supply if not directly connected to the appliance, shall then be opened.
  - 2.3 The maximum allowable air exchange rate from chamber leakage and intentional air supply for the unit (appliance with combustion air supply) in the test chamber is 3.5 air changes per hour, or 28 cfm (cubic feet of air per minute), whichever is less.

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**Exception:** Combustion air may be supplied to the room in which the solid-fuel-burning appliance is located in lieu of direct ducting, provided that one of the following conditions is met:

1. The solid-fuel-burning appliance is part of a central heating plant and installed in an unconditioned space in conformance with the International Mechanical Code; or
2. The solid-fuel-burning appliance is installed in existing construction directly on a concrete floor or surrounded by masonry materials as in a fireplace. The combustion air terminus shall be located as close to the solid fuel burning appliance as possible and shall be provided with a barometric damper or equivalent. The combustion air source shall be specified by the manufacturer or no less than 4 inches in diameter or the equivalent in area or as approved.

**R1006.3 Clearance.** Unlisted *combustion air* ducts shall be installed with a minimum 1-inch (25 mm) clearance to combustibles for all parts of the duct within 5 feet (1524 mm) of the duct outlet.

~~**[W](R1006.4 Passageway.** The *combustion air* passageway shall be not less than 6 square inches (3870 mm<sup>2</sup>) and not more than 55 square inches (0.035 m<sup>2</sup>), except that *combustion air* systems for listed fireplaces shall be constructed in accordance with the fireplace manufacturer's instructions.)~~

**R1006.5 Outlet.** The exterior air outlet shall be located in the back or side of the firebox chamber or shall be located outside of the firebox, at the level of the hearth and not greater than 24 inches (610 mm) from the firebox opening. The outlet shall be closable and designed to prevent burning material from dropping into concealed combustible spaces.