

(C) The attic must be vented in accordance with § 3280.504(c)(1)(i);

(3) Mechanical vents must be installed in accordance with the vent manufacturer's instructions.

(e) *Grade and connections*—(1) *Horizontal vents*. Each vent shall extend vertically from its fixture "T" or point of connection with the waste piping to a point not less than 6 inches above the extreme flood level of the fixture it is venting before offsetting horizontally or being connected with any other vent pipe. Vents for horizontal drains shall connect above the centerline of the drain piping ahead (downstream) of the trap. Where required by structural conditions, vent piping may offset below the rim of the fixture at the maximum angle or height possible.

(f) *Vent terminal*. Vents must terminate through the roof or wall, or to a mechanical vent device in accordance with paragraph (d) of this section.

(1) *Roof extension*. Each vent pipe must extend through its flashing and terminate vertically. Vents that extend through the roof must extend undiminished in size, not less than 2 inches above the roof. Vent openings must be at least 3 feet away from any motor-driven air intake that opens into any habitable area.

(2) *Wall extensions*. Extensions through exterior walls must terminate downward, have a screen to prevent entrance of birds and rodents, and be located as follows:

(i) Extensions must not be located beneath a door, window, or other opening;

(ii) Extensions must be a minimum of 10 feet above the finished floor;

(iii) Extensions must be located a minimum of 2 feet above any building opening that is within 10 feet horizontally of any extension; and

(iv) Extensions must not terminate under an overhang with soffit vents.

(3) *Flashing*. The opening around each vent pipe shall be made watertight by an adequate flashing or flashing material.

(g) *Vent caps*. Vent caps, if provided, shall be of the removable type (without removing the flashing from the roof). When vent caps are used for roof space ventilation and the caps are identical to vent caps used for the plumbing sys-

tem, plumbing system caps shall be identified with permanent markings.

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### § 3280.612 Tests and inspection.

(a) *Water system*. All water piping in the water distribution system must be subjected to a pressure test. The test must be made by subjecting the system to air or water at 80 psi + or - 5 psi for 15 minutes without loss of pressure. The water used for the test must be obtained from a potable water source.

(b) *Drainage and vent system and plumbing fixtures*. The waste and vent system shall be tested by one of the three following alternate methods for evidence or indication of leakage:

(1) *Water test*. Before plumbing fixtures are connected, all of the openings into the piping shall be plugged and the entire piping system subjected to a static water test for 15 minutes by filling it with water to the top of the highest vent opening. There shall be no evidence of leakage.

(2) *Air test*. After all fixtures have been installed, the traps filled with water, and the remaining openings securely plugged, the entire system shall be subjected to a 2-inch (manometer) water column air pressure test. If the system loses pressure, leaks may be located with smoke pumped into the system, or with soap suds spread on the exterior of the piping (Bubble test).

(3) *Flood level test*. The manufactured home shall be in a level position, all fixtures shall be connected, and the entire system shall be filled with water to the rim of the water closet bowl. (Tub and shower drains shall be plugged). After all trapped air has been released, the test shall be sustained for not less than 15 minutes without evidence of leaks. Then the system shall be unplugged and emptied. The waste piping above the level of the water closet bowl shall then be tested and show no indication of leakage when the high fixtures are filled with water and emptied simultaneously to obtain the maximum possible flow in the drain piping.

(c) *Fixture test.* The plumbing fixtures and connections shall be subjected to a flow test by filling them with water and checking for leaks and retarded flow while they are being emptied.

(d) *Shower compartments.* Shower compartments and receptors shall be tested for leaks prior to being covered by finish material. Each pan shall be filled with water to the top of the dam for not less than 15 minutes without evidence of leakage.

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## Subpart H—Heating, Cooling and Fuel Burning Systems

### § 3280.701 Scope.

Subpart H of this standard covers the heating, cooling and fuel burning equipment installed within, on, or external to a manufactured home.

### § 3280.702 Definitions.

The definitions in this subpart apply to subpart H only.

*Accessible*, when applied to a fixture, connection, appliance or equipment, means having access thereto, but which may require the removal of an access panel, door or similar obstruction.

*Air conditioner blower coil system* means a comfort cooling appliance where the condenser section is placed external to the manufactured home and evaporator section with circulating blower attached to the manufactured home air supply duct system. Provision must be made for a return air system to the evaporator/blower section. Refrigerant connection between the two parts of the system is accomplished by tubing.

*Air conditioner split system* means a comfort cooling appliance where the condenser section is placed external to the manufactured home and the evaporator section incorporated into the heating appliance or with a separate blower/coil section within the manufactured home. Refrigerant connection between the two parts of the system is accomplished by tubing.

*Air conditioning condenser section* means that portion of a refrigerated air cooling or (in the case of a heat pump) heating system which includes the refrigerant pump (compressor) and the external heat exchanger.

*Air conditioning evaporator section* means a heat exchanger used to cool or (in the case of a heat pump) heat air for use in comfort cooling (or heating) the living space.

*Air conditioning self contained system* means a comfort cooling appliance combining the condenser section, evaporator and air circulating blower into one unit with connecting ducts for the supply and return air systems.

*Air duct* means conduits or passage-ways for conveying air to or from heating, cooling, air conditioning or ventilation equipment, but not including the plenum.

*Automatic pump (oil lifter)* means a pump, not an integral part of the oil-burning appliance, that automatically pumps oil from the supply tank and delivers the oil under a constant head to an oil-burning appliance.

*Btu. British thermal units* means the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit.

*Btuh* means British thermal units per hour.

*Burner* means a device for the final conveyance of fuel or a mixture of fuel and air to the combustion zone.

*Central air conditioning system* means either an air conditioning split system or an external combination heating/cooling system.

*Class 0 air ducts and air connectors* means air ducts and air connectors having a fire hazard classification of zero when tested in accordance with UL 181–2003, Factory-Made Air Ducts and Air Connectors (incorporated by reference, see § 3280.4).

*Class 1 air ducts and air connectors* means air ducts and air connectors having a flame spread rating of not over 25 without evidence of continued progressive combustion and a smoke developed rating of not over 50 when tested in accordance with UL 181–2003, Standard for Safety Factory-Made Air Ducts and Air Connectors (incorporated by reference, see § 3280.4).