

CHAPTER 25
STATE PLUMBING CODE

[Prior to 7/29/87, see Health Department[470] Ch 25]

641—25.1(135) Adoption. Sections of Chapter 1 listed below, Chapters 2 to 10, and Chapters 13 to 15 of the Uniform Plumbing Code, 2000 Edition, as published by the International Association of Plumbing and Mechanical Officials, 20001 South Walnut Drive, Walnut, California 91789-2825, are hereby adopted by reference with amendments as the state plumbing code authorized by Iowa Code section 135.11(5).

101.3	101.5	103.8
101.4	103.5.3	

Local ordinances or rules and regulations may provide for higher but not lower standards than those found in the state plumbing code. Local ordinances or rules and regulations shall be consistent with Iowa Code section 364.3(3).

641—25.2(135) Applicability. The provisions of this code are applicable to the plumbing in buildings or on premises within cities and to plumbing in a building or on premises located outside the corporate limits of any city if the building or premises is served by an individual connection to a municipally owned water distribution system or wastewater collection system.

641—25.3(135) Fuel gas piping. Fuel gas piping shall comply with the requirements of ANSI/NFPA 54, National Fuel Gas Code, 1999 Edition. Liquefied petroleum gas facilities and appliances shall comply with the requirements of ANSI/NFPA 58, Standard for the Storage and Handling of Liquefied Petroleum Gases, 2001 Edition.

641—25.4(135) Amendments to the Uniform Plumbing Code.

25.4(1) Section 413.1. Add the following after the table and before the footnotes:

A restaurant with an occupancy of 50 or less complies with these requirements if it has one restroom with one water closet and one lavatory.

NOTE: The rules of the Iowa department of inspections and appeals require that separate restrooms for males and females be provided in facilities that serve beer or liquor (481—31.9(137F)).

Urinal requirements apply only to male-only restrooms.

The division of occupancy is to be based upon one half being male and one half being female. The number of occupants shall be determined by use and the occupancy class of the state building code or the local building code that is in effect.

The number of fixtures may be graduated within the group. Example: 8:101-200

4 fixtures are required for 100 persons.

5 fixtures are required for 101-125 persons.

6 fixtures are required for 126-150 persons.

7 fixtures are required for 151-175 persons.

8 fixtures are required for 176-200 persons.

Accessibility for the physically disabled shall be provided as required by Iowa Code chapter 103A.

25.4(2) Section 501.0. Delete the second sentence of the section and delete Table 5-1.

25.4(3) Section 510.8. Delete the section.

25.4(4) Section 603.2. Delete subsection 603.2.3.

25.4(5) Section 603.4. Delete the text of subsection 603.4.13 and insert in lieu thereof the following:

The potable water supply to carbonator shall be protected by a stainless steel dual check valve with an atmospheric vent as approved by the administrative authority for the specific use.

25.4(6) Section 604.1.

Add a note to the end of the section:

NOTE: The use of plastic water supply pipe above grade inside certain licensed care facilities is prohibited by the rules of the Iowa department of inspections and appeals [481—subrules 60.11(4) and 61.11(4), Iowa Administrative Code].

25.4(7) Section 604.2. Delete the section and insert in lieu thereof the following:

604.2 Copper tube for water piping shall have a weight of not less than Type M copper tubing.

EXCEPTION: Copper tube for underground water piping shall have a weight of not less than Type K copper tubing.

25.4(8) Section 701.1. Delete subsections 701.1.4 and 701.1.5 and insert in lieu thereof:

701.1.4 Copper tube for underground drainage and vent piping shall have a weight of not less than that of copper drainage tube Type L.

701.1.5 Copper tube for aboveground drainage and vent piping shall have a weight of not less than that of copper drainage tubing Type M.

EXCEPTION: Type DWV may be used in one- and two-family dwellings.

25.4(9) Section 703.1. Add this sentence to the end of the section:

No underground drainage piping shall be less than two inches in diameter.

25.4(10) Section 710.1. Add the following sentences to the end of the section:

The requirement for the installation of a backwater valve shall apply only when it is determined necessary by the administrative authority based on local conditions. When a valve is required by the administrative authority, it shall be a manually operated gate valve or fullway ball valve. An automatic backwater valve may also be installed, but is not required.

25.4(11) Section 710.14. Delete the section.

25.4(12) Section 717.0. Add this sentence to the end of the section:

The minimum diameter for a building sewer shall be four inches.

25.4(13) Section 807.4. Delete the section and insert in lieu thereof the following:

807.4 No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected. Listed air gap fittings shall be installed with the flood level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher.

25.4(14) Section 903.2. Delete subsections 903.2.1 and 903.2.2 and insert in lieu thereof the following:

903.2.1 Copper tube for underground drainage and vent piping shall have a weight of not less than that of copper drainage tube Type L.

903.2.2 Copper tube for aboveground drainage and vent piping shall have a weight of not less than that of copper drainage tubing Type M.

EXCEPTION: Type DWV may be used in one- and two-family dwellings.

25.4(15) Section 904.1. Delete the third sentence of the section and the exception and insert in lieu thereof the following:

No underground vent piping shall be less than two inches in diameter. Each building shall have a vent stack or main vent equal in size or larger than the required building sewer. The vent stack or main vent shall extend through the roof undiminished in size.

EXCEPTION: In residential buildings of four stories or less, a three-inch vent stack or main vent is permitted. For the purposes of this exception, "residential" includes hotels and motels.

- 25.4(16) Section 906.7. Change “two (2) inches (50.8 mm)” to “three (3) inches (76.2 mm)”.
- 25.4(17) Section 908.0. Delete “Vertical” from the section title.
- 25.4(18) Section 908.1. Delete “vertical” in the first sentence of the section.
- 25.4(19) Section 1002.2. Delete Table 10-1 and insert in lieu thereof the following:

TABLE 10-1
Horizontal Distance of Trap Arms
(Except for water closets and similar fixtures)*

Trap Arm Size		Distance Trap to Vent	
Inches	Millimeters	Feet	Meters
1¼	31.8	5	1.52
1½	38.1	6	1.83
2	50.8	8	2.44
3	76.2	12	3.66
4 and larger	102 and larger	12	3.66

Slope one-fourth (¼) inch per foot (20.9 mm/m)

*The developed length between the trap of a water closet or similar fixture (measured from the top of the closet ring (closet flange) to the inner edge of the vent) and its vent shall not exceed six (6) feet (1.8 m).

25.4(20) Appendices. Chapter 11 and the appendices in the Uniform Plumbing Code are not approved as part of the Iowa state plumbing code; however, except for Appendix K (private sewage disposal), Chapter 11 and the appendices may be used as a point of reference when circumstances warrant. 567—Chapter 69, Iowa Administrative Code, is the standard for private sewage disposal. Chapter 12 of the Uniform Plumbing Code, 2000 Edition, may be used to govern fuel gas piping except as it conflicts with ANSI/NFPA 54, National Fuel Gas Code, 1999 Edition, or ANSI/NFPA 58, Standard for the Storage and Handling of Liquefied Petroleum Gases, 2001 Edition.

641—25.5(135) Backflow prevention with containment. Cities with populations of 15,000 or greater as determined by the 1990 census or any subsequent special census shall enact a backflow prevention program with containment by January 1, 1996. The minimum requirements for a program are given in subrules 25.5(1) through 25.5(5). These requirements are in addition to the applicable requirements of Section 603 of the Uniform Plumbing Code, 2000 Edition.

25.5(1) Definitions. The following definitions are added to those in Chapter 2 and Section 603 of the Uniform Plumbing Code, 2000 Edition, or are modified from those definitions for the purposes of rule 641—25.5(135) only.

a. Administrative authority. The administrative authority for this rule is the city council and its designees.

b. Approved backflow prevention assembly for containment. Approved backflow prevention assembly for containment means a backflow prevention assembly which is approved by the University of Southern California–Foundation for Cross Connection Control and Hydraulic Research. The approval listing shall include the limitations of use based on the degree of hazard. The backflow prevention assembly shall also be listed by the International Association of Plumbing and Mechanical Officials (IAPMO) or by the American Society of Sanitary Engineering (ASSE) as having met the requirements of one of the standards listed below.

Standard	Product Covered
ANSI/ASSE* 1013-1999	Reduced Pressure Principle Backflow Preventers
ANSI/ASSE* 1015-1999	Double Check Backflow Prevention Assembly
ANSI/ASSE* 1047-1999	Reduced Pressure Detector Backflow Preventer
ANSI/ASSE* 1048-1999	Double Check Detector Assembly Backflow Preventer
ANSI/AWWA† C510-97	Double Check Valve Backflow Prevention Assembly
ANSI/AWWA† C511-97	Reduced-Pressure Principle Backflow Prevention Assembly

[‡]American National Standards Institute, 1819 L Street NW, Washington, DC 20036

*American Society of Sanitary Engineering, 28901 Clemens Road, Suite 100, Westlake, OH 44145

†American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235

c. Approved backflow prevention assembly for containment in a fire protection system. Approved backflow prevention assembly for containment in a fire protection system means a backflow prevention assembly to be used in a fire protection system which meets the requirements of Factory Mutual Research Corporation (FM) and Underwriters Laboratory (UL) in addition to the requirements of 25.5(1)“b.”

d. Containment. Containment is a method of backflow prevention which requires a backflow prevention assembly on certain water services. Containment requires that the backflow prevention assembly be installed on the water service as close to the public water supply main as is practical.

e. Customer. Customer means the owner, operator or occupant of a building or property which has a water service from a public water system, or the owner or operator of a private water system which has a water service from a public water system.

f. Degree of hazard. Degree of hazard means the rating of a cross connection or a water service which indicates if it has the potential to cause contamination (high hazard) or pollution (low hazard).

g. Water service. Depending on the context, water service is the physical connection between a public water system and a customer’s building, property or private water system, or the act of providing potable water from a public water system to a customer.

25.5(2) Proposed water service.

a. No person shall install, or cause to have installed, a water service to a building, property or private water system before the administrative authority has evaluated the proposed water service for degree of hazard.

b. The administrative authority shall require the submission of plans, specifications and other information deemed necessary for a building, property or private water system to which a water service is proposed. The administrative authority shall review the information submitted to determine if cross connections will exist and the degree of hazard.

c. The owner of a building, property or private water system shall install, or cause to have installed, an approved backflow prevention assembly for containment as directed by the administrative authority before water service is initiated.

d. Reconstruction of an existing water service shall be treated as a proposed water service for the purposes of rule 641—25.5(135).

25.5(3) Existing water services.

a. The administrative authority shall publish the standards which it uses to determine the degree of hazard for a water service. These shall be consistent with standards published by the Iowa department of public health.

b. Each customer shall survey the activities and processes which receive water from the water service and shall report to the administrative authority if cross connections exist and the degree of hazard.

c. The administrative authority may inspect the plumbing of any building, property and private water system which has a water service to determine if cross connections exist and the degree of hazard.

d. If, based on information provided through 25.5(3)“b” and “c,” the administrative authority determines that a water service may contaminate the public water supply, the administrative authority shall require that the customer install the appropriate backflow prevention assembly for containment.

e. If a customer refuses to install a backflow prevention assembly for containment when it is required by the administrative authority, the administrative authority may order that water service to the customer be discontinued until an appropriate backflow prevention assembly is installed.

25.5(4) Backflow prevention assemblies for containment.

a. Backflow prevention assemblies for containment shall be installed immediately following the water meter or as close to that location as deemed practical by the administrative authority.

b. A water service determined to present a high hazard shall be protected by an air gap or an approved reduced-pressure principle backflow prevention assembly.

c. A water service determined to present a low hazard shall be protected by an approved double check valve assembly or as in 25.5(4)“b.”

d. A water service to a fire protection system shall be protected from backflow in accordance with the recommendations of American Water Works Association Manual M14. Where backflow prevention is required for a fire protection system, an approved backflow prevention assembly for containment in a fire protection system shall be used.

25.5(5) Backflow incidents.

a. The customer shall immediately notify the agency providing water service when the customer becomes aware that backflow has occurred in the building, property or private water system receiving water service.

b. The administrative authority may order that a water service be temporarily shut off when a backflow occurs in a customer’s building, property or private water system.

These rules are intended to implement Iowa Code chapter 135.

[Filed 12/3/81, Notice 9/2/81—published 12/23/81, effective 1/27/82]

[Filed 2/24/84, Notice 10/26/83—published 3/14/84, effective 4/18/84]

[Filed emergency 7/11/86 after Notice 4/23/86—published 7/30/86, effective 7/11/86]

[Filed emergency 7/10/87—published 7/29/87, effective 7/10/87]

[Filed 1/17/89, Notice 11/16/88—published 2/8/89, effective 3/15/89]

[Filed 7/17/92, Notice 1/22/92—published 8/5/92, effective 9/9/92]

[Filed 5/13/96, Notice 3/13/96—published 6/5/96, effective 7/10/96]

[Filed 9/14/01, Notice 8/8/01—published 10/3/01, effective 11/19/01]