Amendments to the 2006 International Plumbing Code

Table of Contents, Chapter 7, Section 714; change to read as follows:

Chapter 1, Administration

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 13 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the Electrical Code as adopted.

Sections 106.6.2 and 106.6.3; change to read as follows:

106.6.2 Fee schedule. The fees for all plumbing work shall be as adopted by resolution of the governing body of the jurisdiction.

106.6.3 Fee Refunds. The code official shall establish a policy for authorizing the refunding of fees *(Delete balance of section)*

Section 109; Delete entire section and insert the following:

SECTION 109
MEANS OF APPEAL

109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

Chapter 3, General Regulations

Section 305.6.1 Sewer Depths is changed to read as follows;

Building sewers shall be a minimum of 12 inches (304 mm) below grade.

Section 305.9 Protection of components of plumbing system; is change to read as follows:

Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

Sections 312.9.1 and 312.9.2; change to read as follows:

312.9.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable. In the absence of local provisions, the owner is responsible to ensure that testing is performed.

312.9.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with applicable local provisions. In the absence of local provisions, the owner is responsible to ensure that testing is done in accordance with one of the following standards:

{list of standards unchanged}

Section 314.2.1; modify second sentence to read as follows:

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

Section 314.2.2; change to read as follows:

314.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC, or PVC. Schedule 80 PVC pipe or tubing may be installed where piping is exposed to ultra violet light. All components shall be selected for the pressure, temperature and exposure rating of the installation. Condensate waste and drain line size shall not be less than ¾-inch (19 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method. All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope

Chapter 4, Fixtures, Faucets and Fixture Fittings.

Section 401.1 Scope; addition of sentence to read as follows:

The provisions of this Chapter are meant to work in coordination with the provisions of the Building Code. Should any conflicts arise between the two chapters, the Code Official shall determine which provision applies.

Section 403.1 Minimum number of fixtures; change to read as follows:

Plumbing fixtures shall be provided for the type of occupancy and in the minimum number as follows:

1. Assembly Occupancies: At least one drinking fountain shall be provided at each floor level in an approved location.
   Exception**:** A drinking fountain need not be provided in a drinking or dining establishment.
2. Groups A, B, F, H, I, M and S Occupancies: Buildings or portions thereof where persons are employed shall be provided with at least one water closet for each sex except as provided for in Section 403.2.
3. Group E Occupancies: Shall be provided with fixtures as shown in Table 403.1.
4. Group R Occupancies: Shall be provided with fixtures as shown in Table 403.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the Code Official. The number of occupants shall be determined by the

International Building Code. Occupancy classification shall be determined in accordance with the International Building Code.

Add Section 403.1.2 Finished material; to read as follows:

Finish materials shall comply with Section 1209 of the *International Building Code*.

Section 405.6 Plumbing in Mental Health Centers; delete.

Section 409.2 Water connection; change to read as follows:

The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608.

Section 410.1 Approval; change to read as follows:

Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9.

> Exception: A drinking fountain need not be provided in a drinking or dining establishment.

Section 412.4 Public laundries and central washing facilities; change to read as follows:

412.4 Required location. Floor drains shall be installed in the following areas:

1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76mm) in diameter.
2. Commercial kitchens. (In lieu of floor drains in commercial kitchens, the Code Official may accept floor sinks.)

Section 413.4 Water supply required; change to read as follows:

All food waste grinders shall be provided with a supply of cold water. The water supply shall be protected against backflow by an air gap or with the installation of a backflow preventer in accordance with Section 608.

Section 417.5 Shower floors or receptors; change to read as follows:

Floor surfaces shall be constructed of impervious, noncorrosive, nonabsorbent and waterproof materials.

Thresholds shall be a minimum of 2 inches (51 mm) and a maximum of 9 inches (229 mm), measured from top of the drain to top of threshold or dam. Thresholds shall be of sufficient width to accommodate a minimum twenty-two (22) inch (559 mm) door.

> Exception: Showers designed to comply with ICC/ANSI A117.1.

Section 417.5.2 Shower lining; change to read as follows:

Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made watertight utilizing material complying with Sections 417.5.2.1 through 417.5.2.4. Such liners shall turn up on all sides at least 3 inches (76 mm) above the finished

threshold level and shall extend outward over the threshold and fastened to the outside of the threshold jamb. Liners shall be recessed and fastened to an approved backing so as not to occupy the space required for wall covering, and shall not be nailed or perforated at any point less then 1 inch (25.4 mm) above the finished threshold. Liners shall be pitched one-fourth unit vertical in 12 units horizontal (2 percent slope) and shall be sloped towards the fixture drains and be securely fastened to the waste outlet at the seepage entrance, making a watertight joint between the liner and the outlet.

Add Section 417.7 Test for shower receptors; to read as follows:

417.7 Test for shower receptors**.** Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.

Section 419.3 Surrounding material; change to read as follows:

Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip or water closet and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.

Chapter 5, Water Heaters

Section 502.3; change to read as follows:

502.3 Water heaters installed in attics. Attics containing a water heater shall be provided with an opening and unobstructed passageway large enough to allow removal of the water heater. The passageway shall not be less then thirty (30) inches (762 mm) high and thirty (30) inches (762 mm) wide and not more then twenty (20) feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the water heater. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the water heater.

502.5 Water heaters above ground or floor**.** When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

502.5.1 Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 502.3.1.

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504.6 Requirements for discharge piping.
The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.

4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

   Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufactures installation instructions and installed following those instructions.

5. Discharge to an indirect waste receptor or to the outdoors. Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Not terminate less than 6 inches or more than 24 inches (152 mm) above grade nor more than 6 inches above the waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME 112.4.1.

Chapter 6, Water Supply and Distribution.

Section 604.4.1 State maximum flow rate. Add to read as follows:

Where the State mandated maximum flow rate is more restrictive than those of this section, the State flow rate shall take precedence.

Tables 605.3 and 605.4; Cross-linked polyethylene (PEX)plastic tubing, Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe, Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE), Polybutylene (PB) Plastic pipe and tubing, Polyethylene/aluminum/polyethylene (PE-AL-PE), and Polyvinyl chloride (PVC) plastic pipe, **;** delete these sections.

605.14.3 Soldered joints, add the following to the end of the paragraph.

Soldered joints shall not be installed under concrete or paved surfaces.

Section 606.1; delete items number 4 and 5.

Section 606.2 Items number 1 and 2 change to read as follows:

Section 606.2 Location of shutoff valves; Shutoff valves shall be installed in the following locations:

1. On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.

2. On the water supply pipe to each appliance or mechanical equipment.

Section 608.1 General; change to read as follows:

A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Back flow preventer applications shall conform to applicable local regulations, Table 608.1, and as specifically stated in Sections 608.2 through 608.16.9.

Section 608.16.5; change to read as follows:

608.16.5 Connections to Lawn Irrigation Systems. The potable water supply system to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

Section 608.17; change to read as follows:

608.17 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. In the absence of other local regulations, installation shall be in accordance with Sections 608.17.1 through 608.17.8.

Section 610 Disinfection of potable water system

610.1 General.

New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to “on-site” or “inplant” fabrication of a system or to a modular portion of a system.

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Exception: With prior approval the Code Official may wave this requirement when deemed un-necessary.

Chapter 7, Sanitary Drainage

Section 712.5 Dual Pump System; add section to read as follows:

All sumps shall be automatically discharged and, when in any “public use” occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to

function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

Section 714, 714.1; change to read as follows:

SECTION 714
ENGINEERED DRAINAGE DESIGN

714.1 Design of drainage system. The sizing, design and layout of the drainage system shall be permitted to be designed by approved design methods.

Chapter 8, Indirect/Special Waste

Section 802.4 Standpipes; add a sentence to read as follows:

No standpipe shall be installed below the ground.

Chapter 9, Vents

Section 904.1 Roof extension; change to read as follows:

All open vent pipes that extend through a roof shall be terminated at least six (6) inches (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

Section 906.1 Distance of trap from vent; is changed to read as follows:

Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in Table 906.1.

~~Exception: The developed length of the fixture drain from the trap weir to the vent fitting for self-siphoning fixtures, such as water closets, shall not be limited.~~

Section 912.1 Type of fixture; is changed to read as follows:

A combination drain and vent system shall not serve fixtures other than floor drains, standpipes, and indirect waste receptors. Combination drain and vent systems shall not receive the discharge of a food waste grinder or clinical sink.

Section 917.7 Vent required; is changed to read as follows:

Within each plumbing system, a minimum of one stack vent or vent stack shall extend outdoors to the open air. The vent to the exterior of the building shall have the same cross sectional area as the sewer line serving the building.

Chapter 11, Storm Drainage

Section 1101.8; change to read as follows:

1101.8 Cleanouts required. Cleanouts shall be installed in the building storm drainage system and shall comply with the provisions of this code for sanitary drainage pipe cleanouts.

Exception: Subsurface drainage systems

Section 1106.1 General; is changed to read as follows:

The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six (6) inches per hour rainfall rate.

Section 1107.3 Sizing of secondary drains; is changed to read as follows:

Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

Section 1202.1; delete Exception 2.