ARTICLE 16. PLUMBING CODE

Rule 1.	Indiana Plumbing Code (Repealed)	
Rule 1.1.	Indiana Plumbing Code, 1989 (Repealed)	
Rule 1.2.	Indiana Plumbing Code, 1991 Edition (Repealed)	
Rule 1.3.	Indiana Plumbing Code, 1999 Edition (Repealed)	
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Rule 1.4. 2012 Indiana Plumbing Code

Rule 2. American Society of Sanitary Engineers Standard 1051-1998 (Repealed)

Rule 1. Indiana Plumbing Code (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Sep 22, 1988, 2:35 p.m.: 12 IR 341, eff Jan 2, 1989)

Rule 1.1. Indiana Plumbing Code, 1989 (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Nov 30, 1990, 4:07 p.m.: 14 IR 748, eff Jan 2, 1991)

Rule 1.2. Indiana Plumbing Code, 1991 Edition (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Jun 30, 1999, 2:53 p.m.: 22 IR 3414)

Rule 1.3. Indiana Plumbing Code, 1999 Edition (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher)

Rule 1.4. 2012 Indiana Plumbing Code

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675 IAC 16-1.4-1	Adoption by reference
675 IAC 16-1.4-2	Chapter 1; administration
675 IAC 16-1.4-3	Chapter 2; definitions
675 IAC 16-1.4-4	Chapter 3; general regulations
675 IAC 16-1.4-5	Chapter 4; fixtures, faucets, and fixture fittings
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675 IAC 16-1.4-16	Appendix B; rate of rainfall for various cities
675 IAC 16-1.4-17	Appendix C; gray water recycling systems
675 IAC 16-1.4-18	Appendix D; degree day and design temperatures
675 IAC 16-1.4-19	Appendix E; sizing of water piping system
675 IAC 16-1.4-20	Appendix F; structural safety
675 IAC 16-1.4-21	Appendix G; vacuum drainage system
675 IAC 16-1.4-22	ASME 112.19.19-2006, Vitreous China Nonwater Urinals

675 IAC 16-1.4-1 Adoption by reference

Authority: IC 22-13-2

Affected: <u>IC 22-12</u>; <u>IC 22-13</u>; <u>IC 22-14</u>; <u>IC 22-15</u>; <u>IC 36-7</u>

Sec. 1. (a) That certain document, being titled the International Plumbing Code, 2006 edition, second printing, published by the International Code Council, Inc., 500 New Jersey Avenue NW, Sixth Floor, Washington, D.C. 20001-2070, be and the same

is hereby adopted by reference as if fully set out in this rule, save and except those amendments made in this rule.

- (b) Wherever the term "this code" is used within this rule, it shall mean the 2012 Indiana Plumbing Code.
- (c) This rule is available for review and reference at the:

Legal and Code Services Section

Indiana Department of Homeland Security

Indiana Government Center South

302 West Washington Street, Room W246

Indianapolis, Indiana 46204

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-1; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-2 Chapter 1; administration

Authority: IC 22-13

Affected: IC 4-21.5; IC 22-12-7; IC 22-13; IC 22-14; IC 22-15; IC 25-28.5; IC 36-7-2-9

Sec. 2. Delete Chapter 1 and insert to read as follows:

- (a) 101.1 Title. This rule shall be known as the 2012 Indiana Plumbing Code and shall be published, except incorporated documents, by the Department of Homeland Security for general distribution and use under that title.
- (b) 101.2 Scope.
 - (1) The provisions of this code shall apply to the construction, alteration, and addition to plumbing equipment and systems regulated by this code for Class 1 structures, except townhouses, within the Class 1 structure and up to five (5) feet (1,524 mm) outside of any portion of the Class 1 structure.
 - (2) Compliance with this code for Class 2 structures or Class 1 townhouses is evidence of compliance with the Indiana Residential Code (675 IAC 14).
 - (3) This code does not regulate licensure requirements for plumbers. Such licensure requirements are set out in <u>IC</u> 25-28.5.
- (c) 101.3 Appendices and Standards. Provisions in the appendices are not enforceable unless specifically adopted. The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.
- (d) 101.4 Intent. The purpose of this code is to provide minimum standards for safety and to safeguard property and public welfare by regulating and controlling the design, construction, installation, quality of material, and location of plumbing equipment and systems.

Exceptions: Where enforcement of a code provision would violate the conditions of the listing, labeling, or manufacturer's installation instructions of the equipment or appliance, the conditions of the listing, labeling, or manufacturer's instruction shall apply.

- (e) 101.5 Plans. Plans shall be submitted for Class 1 structures as required by the General Administrative Rules (675 IAC 12-6), and for Class 2 structures as required by local ordinance.
- (f) 101.6 Existing construction. For existing construction, see the General Administrative Rules (675 IAC 12-4) and for Class 2 structures as required by local ordinances.
- (g) 101.7 Conflicts between Codes. For conflicting requirements within the Fire Prevention and Building Safety Commission's rules, see the General Administrative Rules (675 IAC 12-4).
- (h) 101.8 Appeals. Appeals from orders issued by the Division of Fire and Building Safety are governed by IC 4-21.5 and IC 22-12-7. Appeals of orders issued by a local unit of government are governed by local ordinance and also may be appealed to the commission.
- (i) 101.9 Alternative Methods and Materials: See the General Administrative Rules 675 IAC 12-6-11.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-2; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-3 Chapter 2; definitions

Authority: IC 22-13

Affected: IC 10-19-2; IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 25-4; IC 25-31; IC 36-7-2-9

Sec. 3. Chapter 2 is amended to read as follows:

(a) Amend Section 201.3 by deleting the text and inserting the following: Where terms are not defined in this code and are defined in the Indiana Building Code (675 IAC 13), the Indiana Electrical Code (675 IAC 17), the Indiana Mechanical Code (675 IAC 18), the Indiana Fire Code (675 IAC 22), or the Indiana Fuel Gas Code (675 IAC 25), such terms shall have the meanings ascribed to them in those codes.

- (b) Amend Section 202 Definitions, as follows:
 - (1) Delete the definition of Approved and insert to read as follows:

APPROVED as to materials, equipment, design of products, and types of construction, means acceptance by the code official by one (1) of the following methods:

- (i) investigation or tests conducted by nationally recognized authorities; or
- (ii) investigation or tests conducted by technical or scientific organizations; or
- (iii) nationally accepted principles.

The investigation, tests, or principles shall establish that the materials, equipment, design of products, and construction are safe for their intended purposes.

- (2) Amend the definition of Backflow to read as follows: BACKFLOW means the reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable supply of water from any source or sources.
- (3) Add the definition of Backpressure to read as follows: BACKPRESSURE means any elevation of the pressure in the downstream piping system (by pump, elevation of piping, steam pressure, air pressure, etc.) above the supply pressure at the point of consideration, which would cause or tend to cause a reversal of the normal flow direction.
- (4) Amend the definition of Building to delete the text and insert as follows: BUILDING means any structure occupied or intended for supporting or sheltering any occupancy.
- (5) Delete the definition of Code Official and insert to read as follows: CODE OFFICIAL means the Division of Fire and Building Safety, the local building official as authorized under IC 36-7-2-9 and the local ordinance.
- (6) Amend the definition of Dead End to delete the text and insert as follows: DEAD END means a pipe that is terminated at a developed length of two (2) feet (609.6 mm) or more by means of a plug or other closed fitting, except where serving a clean out extension to an accessible area.
- (7) Add the definition of Division of Fire and Building Safety to read as follows: DIVISION OF FIRE AND BUILDING SAFETY means the Division of Fire and Building Safety of the Indiana Department of Homeland Security created pursuant to IC 10-19-2.
- (8) Add the definition of Gray Water to read as follows: GRAY WATER means waste water discharged from lavatories, bathtubs, showers, clothes washers, laundry trays, condensate cooling coils, and evaporators.
- (9) Add the definition of Indiana Building Code to read as follows: INDIANA BUILDING CODE means the Indiana Building Code (675 IAC 13) in effect in Indiana at the time of construction, remodeling, alteration, or addition of a Class 1 Structure, except for townhouses, or the Indiana Residential Code (675 IAC 14) for Class 2 structures and Class 1 townhouses, in effect at the time of the construction, addition, or alteration of the plumbing system.
- (10) Add the definition of Indiana Electrical Code to read as follows: INDIANA ELECTRICAL CODE means the Indiana Electrical Code (675 IAC 17) in effect at the time of construction, remodeling, alteration, or addition of a Class 1 Structure.
- (11) Add the definition of ICC Electrical Code: See the Indiana Electrical Code.
- (12) Add the definition of Indiana Energy Conservation Code to read as follows: INDIANA ENERGY CONSERVATION CODE (675 IAC 19) means the Indiana Energy Conservation Code in effect at the time of construction, remodeling, alteration, or addition of a Class 1 Structure.
- (13) Add the definition of Indiana Mechanical Code to read as follows: INDIANA MECHANICAL CODE means the Indiana Mechanical Code (675 IAC 18) in effect at the time of construction, remodeling, alteration, or addition of a Class 1 Structure.

- (14) Add the definition of Indiana Plumbing Code to read as follows: INDIANA PLUMBING CODE means the Indiana Plumbing Code (675 IAC 16) in effect at the time of construction, remodeling, alteration, or addition of a Class 1 Structure.
- (15) Add the definition of International Building Code to read as follows: INTERNATIONAL BUILDING CODE: See the Indiana Building Code.
- (16) Add the definition of International Energy Conservation Code to read as follows: INTERNATIONAL ENERGY CONSERVATION CODE: See the Indiana Energy Conservation Code.
- (17) Add the definition of International Mechanical Code to read as follows: International Mechanical Code: See the Indiana Mechanical Code.
- (18) Add the definition of International Plumbing Code to read as follows: INTERNATIONAL PLUMBING CODE: See the Indiana Plumbing Code.
- (19) Amend the definition of Labeled to delete the text and insert as follows: LABELED means equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization engaged in 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.
- (20) Amend the definition of Listed to delete the text and insert as follows: LISTED means equipment or materials included in a list published by an organization engaged in product evaluation, that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.
- (21) Delete the definition of Plumbing and insert to read as follows: PLUMBING means the practice, materials, and fixtures utilized in the installation, extension, and alteration of all piping, fixtures, plumbing appliances, and plumbing appurtenances, within or on the same property of the structure, in connection with sanitary drainage or storm drainage facilities; venting systems; and public or private water supply systems.
- (22) Amend definition of Registered Design Professional to delete the text and insert as follows: REGISTERED DESIGN PROFESSIONAL. An architect who is registered under IC 25-4 or professional engineer who is registered under IC 25-31. If a registered design professional is not required by 675 IAC 12-6 or 675 IAC 15, then it means the owner.
- (23) Amend the definition of Swimming Pool to read as follows: See Indiana Swimming Pool Code, 675 IAC 20-1.1. (24) Add the definition of Townhouse to read as follows: TOWNHOUSE means a single family dwelling constructed in a row of attached units separated by property lines and with open space on at least two (2) sides, and is regulated by the Indiana Residential Code (675 IAC 14) as a Class 1 structure.
- (25) Add the definition of Water Closet to read as follows: WATER CLOSET means a water-flushed plumbing fixture designed to receive human waste directly from the user of the fixture.
- (26) Delete the definition of Water Main and insert to read as follows: WATER MAIN means water supply pipe or system of pipes for public or community use.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-3; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-4 Chapter 3; general regulations

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 4. Chapter 3 is amended as follows:

- (a) Amend Section 301.1.1 to read as follows: See Section 101.2.
- (b) Amend Section 301.3 to add an exception to read as follows:

Exception: Bathtubs, showers, lavatories, clothes washers, air conditioning condensation, laundry trays, and process water that is exposed only to heat transfer and no other contamination shall not be required to discharge to the sanitary drainage system where such fixtures discharge to a gray water system in accordance with Appendix C.

- (c) Amend Section 301.7 to read as follows: See Section 101.7.
- (d) Amend Section 304.4 by deleting the text after "protected" and inserting "with an impervious material".

- (e) Amend Section 305.3 by adding a third sentence to read as follows: No plumbing pipes shall be directly embedded in concrete or masonry.
- (f) Amend Section 305.6 as follows:
 - (1) In the first sentence, delete "water".
 - (2) Delete the last sentence in its entirety without substitution.
- (g) Delete the text of Section 305.6.1 and insert to read as follows: Waterlines. Waterlines shall not be installed outside of a building, in attics or crawlspaces, or in any other place subjected to freezing temperatures, unless adequate provision is made to protect such waterlines from freezing by insulation, ambient heat, or alternate heat source. No waterlines shall be concealed in outside walls, above grade.
- (h) Add Section 305.6.2 to read as follows: The minimum depth of exterior water supply piping measured from finished grade to the top of the water pipe shall be in accordance with Table 305.6.2.
- (i) Add Table 305.6.2 Minimum Depth of Bury of Exterior Water Supply Piping as follows:

Table 305.6.2

Minimum Depth of Bury for Exterior Water Supply Piping

NO.	COUNTY	DEPTH IN INCHES
1	Adams	48
2	Allen	48
3	Bartholomew	36
4	Benton	48
5	Blackford	42
6	Boone	42
7	Brown	36
8	Carroll	48
9	Cass	48
10	Clark	36
11	Clay	36
12	Clinton	42
13	Crawford	36
14	Daviess	36
15	Dearborn	36
16	Decatur	36
17	Dekalb	48
18	Delaware	42
19	Dubois	36
20	Elkhart	48
21	Fayette	42
22	Floyd	36
23	Fountain	36
24	Franklin	36
25	Fulton	48
26	Gibson	36
27	Grant	42
28	Greene	36
29	Hamilton	42
30	Hancock	42
31	Harrison	42

47 Lawrence 36 48 Madison 42 49 Marion 42 50 Marshall 48 51 Martin 36 52 Miami 48 53 Monroe 36	
49 Marion 42 50 Marshall 48 51 Martin 36 52 Miami 48 53 Monroe 36	
50 Marshall 48 51 Martin 36 52 Miami 48 53 Monroe 36	
51 Martin 36 52 Miami 48 53 Monroe 36	
52 Miami 48 53 Monroe 36	
53 Monroe 36	
i	
54 Montgomery 42	
55 Morgan 42	
56 Newton 48	
57 Noble 48	
58 Ohio 36	
59 Orange 36	
60 Owen 36	
61 Parke 42	
62 Perry 36	
63 Pike 36	
64 Porter 48	
65 Posey 36	
66 Pulaski 48	
67 Putnam 42	
68 Randolph 42	
69 Ripley 36	
70 Rush 42	
71 St. Joseph 48	
72 Scott 36	
73 Shelby 42	
74 Spencer 36	
75 Starke 48	
76 Steuben 48	
77 Sullivan 36	

32	Hendricks	42
33	Henry	42
34	Howard	42
35	Huntington	48
36	Jackson	36
37	Jasper	48
38	Jay	42
39	Jefferson	36
40	Jennings	36
41	Johnson	42
42	Knox	36
43	Kosciusko	48
44	LaGrange	48
45	Lake	48
46	LaPorte	48

78	Switzerland	36
79	Tippecanoe	42
80	Tipton	42
81	Union	42
82	Vanderburgh	36
83	Vermillion	42
84	Vigo	36
85	Wabash	48
86	Warren	42
87	Warrick	36
88	Washington	36
89	Wayne	42
90	Wells	48
91	White	48
92	Whitley	48

- (j) Amend Section 305.8 to read as follows: delete "sixty two thousandths (0.062) -inch-thick (1.6 mm)" and insert "five hundred seventy-five ten-thousandths (0.0575) -inch-thick (1.463 mm), No. 16 gage".
- (k) Delete Section 308.6 without substitution.
- (l) Delete Section 311 in its entirety without substitution.
- (m) Amend Section 312.9.1 to read as follows: Delete "annual" and insert "at the time of installation".
- (n) Delete Section 312.9.2 without substitution.
- (o) Amend Section 314.2.1 as follows:
 - (1) After "disposal", insert "gray water storage or other nonpotable sustainable use".
 - (2) Insert the following text after the first sentence: Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth (1/8) unit vertical in twelve (12) units horizontal (one (1) percent slope).

(Fire Prevention and Building Safety Commission; 675 IAC 6-1.4-4; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-5 Chapter 4; fixtures, faucets, and fixture fittings

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 5. Chapter 4 is amended as follows:

- (a) Delete Section 403 in its entirety and insert: See Chapter 29 of the Indiana Building Code.
- (b) Delete Section 404 in its entirety and insert: See Chapter 29 of the Indiana Building Code.
- (c) Delete Section 405.2 and insert: See Chapter 29 of the Indiana Building Code.
- (d) Delete Section 405.3 and insert: See Chapter 29 of the Indiana Building Code.
- (e) Delete Section 405.3.1 and insert: See Chapter 29 of the Indiana Building Code.
- (f) Delete Section 410.1 and insert: See Chapter 29 of the Indiana Building Code.
- (g) Delete Section 410.2 and insert: See Chapter 29 of the Indiana Building Code.
- (h) Amend Section 413.4 by adding a second sentence to read as follows: The cold water supply shall be protected against backflow by an air gap or a backflow preventer in accordance with Section 608.
- (i) Amend Section 416.5 to add an exception to read as follows:

Exception: An ASSE 1070 point of use device may be omitted if the fixture is supplied with tempered water through an ASSE 1017 master mixing valve.

- (j) Amend Section 419.1 to insert, after "ASME A112.19.2M", "ASME A112.19.19, Vitreous China Nonwater Urinals, 2006 edition,".
- (k) Delete the last sentence in Section 419.2 and insert: See Chapter 29 of the Indiana Building Code.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-5; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-6 Chapter 5; water heaters

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 6. Chapter 5 is amended as follows:

- (a) Add Section 502.1.1 Elevation of ignition source to read as follows: Elevation of ignition source. Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor-fuel-dispensing facilities, and parking garages shall be elevated such that the source of ignition is not less than eighteen (18) inches (457 mm) above the floor surface on which the equipment or appliance rests. Such equipment and appliances shall not be installed in Group H occupancies or control areas where open use, handling, or dispensing of combustible, flammable, or explosive materials occur. For purposes of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage.
- (b) Add Section 502.1.1.1, Parking garages to read as follows: Parking garages. Connection of a parking garage with any room in which there is a fuel-fired appliance shall be by means of a vestibule providing a two-door separation, except that a single door is permitted where the sources of ignition in the appliances are elevated in accordance with Section 304.3 of the Indiana Mechanical Code.

Exception: This section shall not apply to appliance installations complying with Section 304.5 of the Indiana Mechanical Code.

- (c) Add Section 502.2.1, Prohibited locations to read as follows: Prohibited locations. Fuel-fired appliances shall not be located in, or obtain combustion air from, any of the following rooms or spaces:
 - (1) Sleeping rooms.
 - (2) Bathrooms.
 - (3) Toilet rooms.
 - (4) Storage closets.
 - (5) Surgical rooms.

Exception: This section shall not apply to the following appliances:

- (i) Direct-vent appliances that obtain all combustion air directly from the outdoors.
- (ii) Solid fuel-fired appliances provided that the room is not a confined space and the building is not of unusually tight construction.
- (iii) Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Section 703 of the Indiana Mechanical Code. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior air leakage requirements of the Indiana Energy Conservation Code and equipped with an approved self-closing device.
- (d) Delete Section 504.2 and insert to read as follows: Bottom fed water heaters. A bottom fed water heater or tank connected to a water heater that is installed at and above the fixture outlet shall be protected from accidental drainage and negative pressure by:
 - (1) a check valve and a properly sized expansion tank; or
 - (2) a vacuum relief valve that shall comply with ANSI Z 21.22 and be installed in accordance with the manufacturer's recommendations.
- (e) Add Section 504.2.1 to read as follows: The cold water piping shall rise above the top of the water heater before connecting to the tank inlet.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-6; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-7 Chapter 6; water supply and distribution

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 7. Chapter 6 is amended as follows:

- (a) Delete Section 602.3 in its entirety without substitution.
- (b) Amend Section 604.9 to read as follows:
 - (1) Add a new second sentence as follows: An air chamber is not a water hammer arrestor.
 - (2) Delete the last sentence in its entirety without substitution.
- (c) Amend Table 605.3, WATER SERVICE PIPE, under "copper or alloy tubing" by deleting "M or WM".
- (d) Delete Section 605.3.1 without substitution.
- (e) Amend Table 605.5, by inserting "Cross-linked" in front of "Polyethylene (PEX-AL-PEX)".
- (f) Amend Section 605.22.2 to read as follows: after "A", delete "purple" and after "solvent cement", delete "not purple in color".
- (g) Delete Section 606.4 without substitution.
- (h) Amend Section 607.1 to add an exception to read as follows:

Exception: An ASSE 1070 point of use device may be omitted if the fixture is supplied with tempered water through an ASSE 1017 master mixing valve.

- (i) Amend Section 607.3.2 to add a second sentence to read as follows: When thermal expansion tanks are used for this purpose, there shall be no valves installed between the water heating appliance and the expansion tank.
- (j) Amend Table 608.1, APPLICATION OF BACKFLOW PREVENTERS, "Backflow preventer for carbonated beverage machines", to delete "low hazard" and insert "high hazard".
- (k) Add Section 608.1.1 to read as follows: The owner of the structure shall have the backflow prevention assembly tested at the time of installation and after relocation.
- (l) Add Section 608.1.2 to read as follows: Backflow preventers for hot water over one hundred ten (110) degrees Fahrenheit (43.3 degrees Celsius) shall be a listed type, designed to operate at temperatures of one hundred ten (110) degrees Fahrenheit (43.3 degrees Celsius) or more without rendering any portion of the assembly inoperable.
- (m) Amend Section 608.14.1 to delete the text and insert as follows: Location of backflow preventers. Access and clearance shall be provided for the required testing. Access and clearance shall require a minimum of twelve (12) inches (305 mm) between the lowest portion of the assembly and grade, floor, or platform. Installations elevated more than five (5) feet (1,524 mm) above the floor or grade shall be provided with a permanent platform complying with the structural requirements and fire resistive requirements of the Indiana Building Code. Reduced pressure principle backflow preventers and reduced pressure detector assembly backflow preventers shall be installed horizontally, unless otherwise listed, at a location where any leakage from the relief port will be noticed and not subject the backflow preventer to flooding.
- (n) Delete the text of Section 608.15.4 and insert as follows: Openings and outlets shall be protected by atmospheric type or pressure type vacuum breakers. The critical level of the atmospheric type vacuum breaker shall be set a minimum of six (6) inches (152 mm) above the flood level rim of the fixture or device. Pressure type vacuum breakers shall be set a minimum of twelve (12) inches (304 mm) above all downstream piping and outlets. Fill valves shall be set in accordance with Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Pipe-applied atmospheric-type vacuum breakers shall be installed not less than six (6) inches (152 mm), and twelve (12) inches (304 mm) for pressure-type vacuum breakers, above the flood level rim of the fixture, receptor, or device served.
- (o) Amend Section 608.16.1 to delete the text and insert as follows: The water supply connection to beverage dispensers shall be protected against backflow by a listed reduced pressure principle backflow preventer. Copper shall not be used downstream from the backflow preventer.
- (p) Amend Section 608.16.3 as follows: after "transfer fluid", add "(non-potable water)", and, after "nontoxic transfer fluid", add "(potable water)".
- (q) Amend Section 608.16.4 to delete the exceptions without substitution.
- (r) Amend Section 608.16.5 as follows: after "A valve,", insert "including system zone valves".
- (s) Delete Section 608.17 in its entirety without substitution.

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675 IAC 16-1.4-8 Chapter 7; sanitary drainage

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 8. Chapter 7 is amended as follows:

- (a) Amend Table 704.1 as follows: delete "0.083.3 mm/m" and insert "83.3 mm/m".
- (b) Amend Section 705.8.2 as follows: delete "purple" and "not purple in color and," without substitution.
- (c) Amend Table 702.2 as follows: under "Copper or copper alloy tubing", delete without substitution "M or DWV".
- (d) Amend Section 705.14.2 as follows: delete "purple" and "not purple in color and" without substitution.
- (e) Amend Section 706.3 as follows: after "combination fittings", delete "side inlets or".
- (f) Delete the fourth sentence in Section 708.3.5 without substitution.
- (g) Amend Table 710.1(2) as follows: In the second column, delete "2,900" and insert "3,900".
- (h) Add Section 710.3 to read as follows: 710.3 Minimum underground drainage size. The minimum pipe size installed underground in a sanitary drainage system within a building shall be two (2) inch nominal (50.8 mm) pipe size.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-8; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-9 Chapter 8; indirect/special waste

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 9. Chapter 8 is amended as follows: Amend Section 802.4 by inserting a new second sentence to read as follows: A trap for a clothes-washer standpipe receptor shall not be installed below the floor. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-9; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-10 Chapter 9; vents

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 10. Chapter 9 is amended as follows:

- (a) Amend Section 901.2.1 by adding an exception to read as follows:
 - Exception: Floor drains.
- (b) Amend Section 904.1, in the first sentence, to delete "[number] inches (mm)" and insert "six (6) inches (152.4 mm)".
- (c) Amend Section 917.1 by deleting: "Stack type air admittance valves shall conform to ASSE 1050" without substitution.
- (d) Delete the text of Section 917.3 and insert as follows: Where permitted. Individual branch and circuit vents shall be permitted to terminate with a connection to an individual or branch-type air admittance valve. Individual and branch-type air admittance valves shall vent only fixtures that are on the same floor level and connect to a horizontal branch drain. The horizontal branch drain having individual and branch—type air admittance valves shall conform to Section 917.3 or Section 917.3.2.
- (e) Delete the text of Section 917.3.3 and insert as follows: Stack. Air admittance valves shall not serve as the vent terminal for vent stacks or stack vents.
- (f) Amend Section 917.4 by deleting: "Stack type air admittance valves shall be located not less than six (6) inches (152 mm) above the flood level rim of the highest fixture being vented.".
- (g) Amend Section 917.8 by adding a second sentence to read as follows: Air admittance valves shall not be used to vent sump pits.
- (h) Amend Section 918.2 (Equation 9-1) as follows: delete " Q_v (gpm) = 27.8 $r_e 2/3$ (1- r_e) D8/3" and insert " Q_v (gpm) = 27.8

 $r_s^{2/3}$ (1- r_s) $D^{8/3}$ ".

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-10; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-11 Chapter 10; traps, interceptors, and separators

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 11. Chapter 10 is amended as follows:

- (a) Amend Section 1002.1 as follows: in exception 2, after "fixture", insert "up to three (3) compartments".
- (b) Amend Section 1003.1 to add a second sentence to read as follows: A cleanout shall be installed immediately downstream of the interceptor or separator.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-11; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-12 Chapter 11; storm drainage

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 12. Chapter 11 is amended as follows:

- (a) Delete Section 1107.2 without substitution.
- (b) Add Section 1113.1.5 to read as follows: Water powered sump pumps. Water powered sump pumps shall comply with Section 608 of this code.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-12; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-13 Chapter 12; special piping and storage systems

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 13. Chapter 12 is amended as follows: Delete the text of Chapter 12, Special Piping and Storage Systems and insert: See the Indiana Fire Code (675 IAC 22). (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-13; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-14 Chapter 13; referenced standards

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 14. Referenced standards are amended as follows:

(a) Amend the first paragraph by deleting "Section 102.8" and inserting "See Section 101.3".

(b) Delete the following standard from the list of ASSE Standards in its entirety without substitution:

Standard Reference Number	Title	Referenced in Code Section Number
ASSE 1050-02	Performance Requirements for Stack Air Admittance Valves for Sanitary Drainage	917.1

- (c) In the reference to NFPA 50-01, delete "01 edition" and insert "as adopted at 675 IAC 28-1-16".
- (d) In the reference to NFPA 51-02, delete "02 edition" and insert "as adopted at 675 IAC 28-1-18".
- (e) In the reference to NFPA 70-05, delete "05 edition" and insert "as adopted at 675 IAC 17".

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-14; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-15 Appendix A; plumbing permits fee schedule

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 15. Delete the text of Appendix A in its entirety and insert: See local ordinance. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-15; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-16 Appendix B; rate of rainfall for various cities

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 16. Appendix B is not adopted and is for informational purposes only. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-16; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-17 Appendix C; gray water recycling systems

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 17. Appendix C is adopted in its entirety except as amended:

- (a) In Section C101.2, delete the text of the definition of GRAY WATER and insert to read as follows: GRAY WATER means waste water discharged from lavatories, bathtubs, showers, clothes washers, laundry trays, condensate cooling coils, and evaporators.
- (b) Delete Section C103 in its entirety without substitution.

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-17; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-18 Appendix D; degree day and design temperatures

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 18. Appendix D is not adopted and is for informational purposes only. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-18; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-19 Appendix E; sizing of water piping system

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 19. Appendix E is adopted except as amended. Amend Section E201.1 as follows:

- (1) In item 4, delete the reference to "Table E201.1" and insert "Table E103.3(2)".
- (2) In item 5, delete the reference to "Table E202.1" and insert "Table E203.3(2)".

(Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-19; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-20 Appendix F; structural safety

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 20. Appendix F is not adopted and is for informational purposes only. For requirements for cutting, notching, and boring in wood members, see the Indiana Building Code (675 IAC 13) or Indiana Residential Code (675 IAC 14). (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-20; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-21 Appendix G; vacuum drainage system

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 21. Appendix G is not adopted and is for informational purposes only. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-21; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

675 IAC 16-1.4-22 ASME 112.19.19-2006, Vitreous China Nonwater Urinals

Authority: IC 22-13-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 22. (a) That certain document being titled ASME A112.19.19, Vitreous China Nonwater Urinals, 2006 edition, as published by The American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990, is hereby adopted by reference as if fully set out in this rule save and except those revisions made in this rule.

- (b) Amend Paragraph 1.3 as follows:
- (1) Delete the second sentence in its entirety without substitution.
- (2) In the reference to ANSI/ICC A117.1, insert, after "Facilities", ", as adopted by the Commission in the Indiana Building Code in effect at the time of construction, alteration or addition".
- (3) In the reference to ASME A112.6.1M, insert, after "Use", ", the 1997 edition".
- (4) In the reference to ASME A112.6.2, insert, after "Tanks", ", the 2000 edition".
- (5) In the reference to ASME A112.19.2, insert, after "Tanks", ", the 2003 edition".
- (6) In the reference to ASME A112.19.5, insert, after "Urinals", ", the 1999 edition".
- (7) In the reference to ASME A112.19.12, insert, after "Systems", ", the 2000 edition".
- (8) In the reference to UL 969, insert, after "Systems", "effective on 12/23/2005".
- (c) Amend Paragraph 3.1 to delete the text and insert the following: See 675 IAC 12-6-11. (Fire Prevention and Building Safety Commission; 675 IAC 16-1.4-22; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)

Rule 2. American Society of Sanitary Engineers Standard 1051-1998 (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Sep 25, 2012, 2:42 p.m.: 20121024-IR-675110448FRA, eff 90 days after filing with the Publisher)

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