

## AGENDA

### UNIFORM BUILDING CODE COMMISSION PLUMBING /HEALTH ADVISORY COMMITTEE MEETING

December 2, 2021 9:00 AM

*This agenda is subject to change up to 24 hours prior to the meeting.*

#### Anchor Location

North Conference Room  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, UT

#### Join with Google Meet

[meet.google.com/cup-zhsw-nns](https://meet.google.com/cup-zhsw-nns)

#### Join by phone

(US) +1 617-675-4444 PIN: 448 445 878 3293#

1. Roll call
2. Approval of the November 4, 2021 minutes
3. Review the definition for “swing connection”
4. Review current amendment for IPC Section 608.17.7
5. Do a final review of the 2021 IPC and amendments, the plumbing portion of the 2021 IRC and amendments and the 2021 ISPSC and amendments

**Next Scheduled Meeting:** January 6, 2022

Please call Sharon at 530-6163 or email [ssmalley@utah.gov](mailto:ssmalley@utah.gov) if you do not plan on attending.



In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting. Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84115, Phone 530-6628 or toll-free in Utah only 866-275-3675.

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

November 4, 2021 9:00

Meeting

CONVENED: 9:02

ADJOURNED: 10:53

STAFF:

Steve Duncombe, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Nathan Lunstad  
Andrea Gamble  
Travis Hales (absent)  
Jeff Brown  
Dean Johnson

Linda Ebert  
Jeremy Haslam  
Don Simons  
Rob Allen (excused)

VISITORS:

Jessie Sharp, Logan City Water & Utah Cross Connection Commission  
Gary Rager, Division of Drinking Water & Utah Cross Connection Commission  
Chris Bowles,

MINUTES

A motion was made by Jeremy Haslam to approve the minutes from the October 7, 2021 meeting as written. The motion was seconded by Dean Johnson and passed unanimously.

REVIEW PROPOSED  
AMENDMENT FOR  
15A-3-205(10) FOR  
SECTION 2910.5

The committee reviewed a possible new amendment for IPC Section 1301.5.1 and a definition for swing connection. Following the discussion, the following wording was developed: "A system that utilizes nonpotable water (i.e., pressurized irrigation) and installs a connection to the potable water system for backup must install a Reduced Pressure Principle Assembly (RP) directly downstream of the potable water connection (Stop and Waste) and install a "swing connection" directly downstream from the (RP) installed so that either the potable water system or the nonpotable water is connected

at any time to prevent a direct Cross Connection and to protect the potable water from any potential hazard from the nonpotable water system. (see Utah Code: Title 19-4-112) Note: RP must be tested within 10 days of installation and annually whether the drinking water is used or not.”

Linda Ebert will work on a definition for the word “Swing Connection” for the committee to review at the December meeting.

A motion was made by Linda Ebert to approve the wording for a new amendment for IPC Section 1301.5.1. The motion was seconded by Dean Johnson and passed unanimously.

A motion was made by Linda Ebert to add the verbiage from the new amendment for IPC Section 1301.5.1 as a new amendment for IRC Section P2910.5. The motion was seconded by Dean Johnson and passed unanimously.

#### CONTINUE WITH THE REVIEW OF THE PLUMBING PORTION OF THE 2021 IRC AND CURRENT AMENDMENTS

The committee reviewed the current amendment for Section P312.10.2. The words “or within 10 days of being placed into service” will be added. A motion was made by Dean Johnson to add that wording to the current amendment. The motion was seconded by Jeremy Haslam and passed unanimously.

The committee reviewed the current amendment for IPC Section 608.17.7. Nathan Lunstad and Linda Ebert will do further review of this amendment and have a recommendation for the December meeting.

The meeting adjourned at 10:53.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*



migrating ice and snow. If an added structure is used, it must provide access for service and comply with the IBC or the IRC."

Amended by Chapter 249, 2016 General Session

**15A-3-205 Amendments to Chapters 26 through 35 of IRC.**

(1) In IRC, Section P2503.8, the word "devices" is deleted and replaced with the word "assemblies".

(2) IRC Section P2508.2 is deleted and replaced with the following: "P2508.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protections, and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The Utah Cross-Connection Control Commission has adopted the field test procedures published by the Manual of Cross Connection Control, Tenth Edition. This manual is published by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research. Test gauges shall comply with ASSE 1064."

(3) IRC Section P2602.1 is deleted and replaced with the following: "P2602.1 General. The water-distribution system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Utah Code, Section 73-3-1, 73-3-3, and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction. The source shall supply sufficient quantity of water to comply with the requirements of this chapter."

Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered by the Department of Environmental Quality, Division of Water Quality.

Exception: Sanitary drainage piping and systems that convey only the discharge from bathtubs, showers, lavatories, clothes washers, and laundry trays shall not be required to connect to a public sewer or to a private sewage disposal system provided that the piping or systems are connected to a system in accordance with Section P2910 or P2911.

(1)(4) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized, provided that the source has been developed in accordance with Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction."

(2)(5) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered by the Department of Environmental Quality, Division of Water Quality."



~~(3)(6)~~In IRC, Section P2705, Item 5, the words "lavatory" and "lavatories" are deleted.

~~(4)(7)~~In IRC, Section P2705, a new Item 6 is added as follows: "6. Lavatories. A lavatory shall not be set closer than 12 inches from its center to any side wall or partition. A lavatory shall be provided with a clearance of 24 inches in width and 21 inches in depth in front of the lavatory to any side wall, partition, or obstruction." Remaining item numbers are renumbered accordingly.

~~(8)~~ In IRC, Section P2801.6.2, the following is added at the end of the section: When permitted by the code official, the pan drain may be directly connected to a soil stack, waste stack, or branch drain. The pan drain shall be individually trapped and vented as required in Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044, a barrier type floor drain trap seal protection device meeting ASSE 1072, or a deep seal p-trap.

~~(9)~~ A new IRC, Section, P2801.6.3, is added as follows: "P2801.6.3 Pan Designation. A water heater pan shall be considered an emergency receptor designated to receive the discharge of water from the water heater only and shall not receive the discharge from any other fixtures, devises, or equipment.

~~(5)(10)~~In IRC, Section P2801.8, ~~all words in the first sentence up to the word "water" are is~~ deleted and replaced with the following: "P2801.8 Water Heater Seismic Bracing. As a minimum requirement, water heaters shall be anchored or strapped to resist horizontal displacement caused by earthquake motion. Strapping shall be at points within the upper one third and lower one-third of the appliance's vertical dimensions."

~~(11)~~ In IRC, Section P2804.6.1, a new number 15 is added as follows:

15. Be installed in accordance with the manufacturer's installation instructions, not to exceed 180 degrees in directional changes."

~~(6)(12)~~A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly testing. The premise owner or the premise owner's designee shall have backflow prevention assemblies operation tested in accordance with administrative rules made by the Drinking Water Board at the time of installation, repair, and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly. Third-party certification for backflow prevention assemblies will consist of any combination of two certifications, laboratory or field. Acceptable third-party laboratory certifying agencies are ASSE, IAPMO, and USC FCCCHR. USC FCCCHR currently provides the only field testing of backflow protection assemblies. Also see [www.drinkingwater.utah.gov](http://www.drinkingwater.utah.gov) and rules made by the Drinking Water Board." Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection double check detector fire protection and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The Utah Cross Connection Control Commission has adopted the field test procedures published by the Manual of Cross Connection Control, Tenth Edition. This manual is published by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research. Test gauges shall comply with ASSE 1064."

~~(7)(13)~~In IRC, Section P2902.1, the following subsections are added as follows:



"P2902.1.1 General Installation Criteria.

Assemblies shall not be installed more than five feet above the floor unless a permanent platform is installed. The assembly owner, where necessary, shall provide devices or structures to facilitate testing, repair, and maintenance, and to insure the safety of the backflow technician.

P2902.1.2 Specific Installation Criteria.

P2902.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly.

The reduced pressure principle backflow prevention assembly shall be installed as follows:

- a. The assembly may not be installed in a pit or below grade where the relief port could be submerged in water or where fumes could be present at the relief port discharge.
- b. The relief valve of the assembly shall not be directly connected to a waste disposal line including a sanitary sewer, a storm drain, or a vent.
- c. The assembly shall be installed in a horizontal position only, unless listed or approved for vertical installation in accordance with Section 303.4 of the IPC as amended in 15A-3-303(1).
- d. The bottom of the assembly shall be installed a minimum of 12 inches above the floor or ground.
- e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.

P2902.1.2.2 Double Check Valve Backflow Prevention Assembly.

A double check valve backflow prevention assembly shall be installed as follows:

- a. The assembly shall be installed in a horizontal position only, unless listed or approved for vertical installation.
- b. The bottom of the assembly shall be a minimum of 12 inches above the ground or floor.
- c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault, including the floor and roof or ceiling, with adequate room for testing and maintenance.

P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker Assembly.

A pressure vacuum break assembly or a spill resistant pressure vacuum breaker assembly shall be installed as follows:

- a. The assembly shall not be installed in an area that could be subject to backpressure or back drainage conditions.
- b. The assembly shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.
- c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. The assembly shall not be installed below ground, in a vault, or in a pit.
- e. The assembly shall be installed in a vertical position."

(14) IRC, Table P2903.2 is deleted and replaced with the following:

"MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND  
FIXTURE FITTINGS<sup>b</sup>



<u>Plumbing Fixture or Fixture Fitting</u>	<u>Maximum Flow Rate or Quantity</u>
<u>Lavatory faucet</u>	<u>1.5 gpm at 60 psi</u>
<u>Shower head<sup>a</sup></u>	<u>2 gpm at 80 psi</u>
<u>Sink faucet</u>	<u>2.2 gpm at 60 psi</u>
<u>Water closet</u>	<u>1.28 gallons per flushing cycle</u>

For SI: 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- a. A hand-held shower spray shall be considered to be a shower head
- b. Consumption tolerances shall be determined from reference standards

~~(8)~~(15) In IRC, Section 2903.5, at the beginning of the second sentence, insert "If installed,".

~~(9)~~(16) In IRC, Section P2903.9.3, the first sentence is deleted and replaced with the following:

"Unless the plumbing appliance or plumbing fixture has a wall-mount valve, shutoff valves shall be required on each fixture supply pipe to each plumbing appliance and to each plumbing fixture other than bathtubs and showers."

~~(10)~~(17) IRC, Section P2910.5, is deleted and replaced with the following:

"P2910.5 Potable water connections.

~~When a potable water system is connected to a nonpotable water system, the potable water system shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 2901. A system that utilizes nonpotable water (i.e., pressurized irrigation) and installs a connection to the potable water system for backup must install a Reduced Pressure Principle Assembly (RP) directly downstream of the potable water connection (Stop and Waste) and install a "swing connection" directly downstream from the (RP) installed so that either the potable water system or the nonpotable water is connected at any time to prevent a direct Cross Connection and to protect the potable water from any potential hazard from the nonpotable water system. (see Utah Code: Title19-4-112) Note: RP must be tested within 10 days of installation and annually whether the drinking water is used or not."~~

~~(11)~~(18) IRC, Section P2910.9.5, is deleted and replaced with the following:

"P2910.9.5 Makeup water.

Where an uninterrupted nonpotable water supply is required for the intended application, potable or reclaimed water shall be provided as a source of makeup water for the storage tank. The makeup water supply shall be protected against backflow by means of an air gap not less than 4 inches (102 millimeters) above the overflow or by a reduced pressure backflow prevention assembly installed in accordance with Section 2902."

~~(12)~~(19) In IRC, Section P2911.12.4, the following words are deleted: "and backwater valves."

~~(13)~~(20) In IRC, Section P2912.15.6, the following words are deleted: "and backwater valves."

(21) In IRC, Section P3007.3.3.1 Materials, the following is added after the word "PE": stainless steel, cast iron, galvanized steel, brass.

~~(14)~~(22) IRC, Section P3009, is deleted and replaced with the following:

~~"P3009 Connected to nonpotable water from on-site water reuse systems.~~

~~Nonpotable systems utilized for subsurface irrigation for single-family residences shall comply with the requirements of R317-401, UAC, Graywater Systems."~~P3009 Graywater Soil Absorption Systems: Graywater recycling systems utilized for subsurface irrigation for single-family residences shall comply with the requirements of UAC R317-401, Graywater Systems. Graywater recycling systems utilized for subsurface irrigation for other occupancies shall



comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment, and Disposal Systems and UAC R317-4, Onsite Wastewater Systems."

~~(15)(23)~~ In IRC, Section ~~P3103.6~~ 3101.4, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."

~~(16)(24)~~ In IRC, Section P3104.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

Amended by Chapter 20, 2019 General Session

### **15A-3-206 Amendments to Chapters 37, 39, and 44 and Appendix F of IRC.**

- (1) ~~In IRC, Section E3705.4.5, the following words are added after the word "assemblies": "with ungrounded conductors 10 AWG and smaller".~~
- (2) In IRC, Section ~~E3901.9~~ E3703.5 the following exception is added:  
"Exception: Receptacles or other outlets adjacent to the exterior walls of the garage, outlets adjacent to an exterior wall of the garage, or outlets in a storage room with entry from the garage may be connected to the garage branch circuit."
- (3) ~~IRC, Section E3902.16 is deleted.~~
- (4) ~~In Section E3902.17:~~
  - ~~(a) following the word "Exception" the number "1." is added; and~~
  - ~~(b) at the end of the section, the following sentences are added:~~
    - ~~"2. This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not significantly increase the existing electrical load. This exception does not include changes involving remodeling or additions to a residence."~~
- (5) IRC, Chapter 44, is amended by adding the following reference standard:

"Standard reference number	Title	Referenced in code section number
USC-FCCCHR 10th Edition Manual of Cross Connection Control	Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531	Table P2902.3"
- (6)
  - (a) When passive radon controls or portions thereof are voluntarily installed, the voluntary installation shall comply with Appendix F of the IRC.
  - (b) An additional inspection of a voluntary installation described in Subsection (6)(a) is not required.

Amended by Chapter 186, 2018 General Session

## **Part 3**

### **Statewide Amendments to International Plumbing Code**

#### **15A-3-301 General provision.**



The amendments in this part are adopted as amendments to the IPC to be applicable statewide.

Enacted by Chapter 14, 2011 General Session

**15A-3-302 Amendments to Chapters 1 and 2 of IPC.**

- (1) ~~In IPC, Section 202, the definition for "Backflow Backpressure, Low Head" is deleted.~~
- (2) In IPC, Section 202, the following definition is added: "Utah Certified Backflow Preventer Assembly Tester. A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4) and Utah Administrative Code R309-305."
- (3) ~~In IPC, Section 202, the following definition is added: "Contamination (High Hazard). An impairment of the quality of the potable water that creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids or waste."~~
- (4) In IPC, Section 202, the definition for "Cross Connection" is deleted and replaced with the following: "Cross Connection. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow")."
- (5) In IPC, Section 202, the following definition is added: "Deep Seal Trap. A manufactured or field fabricated trap with a liquid seal of 4" or larger."
- (6) In IPC, Section 202, the definition for "Essentially Nontoxic Transfer Fluid" is deleted and replaced with the following:  
"ESSENTIALLY NONTOXIC TRANSFER FLUID. Fluids ~~having a Gosselin rating of 1,~~ including propylene glycol; and mineral oil."
- (7) In IPC, Section 202, the definition for "Essentially Toxic Transfer Fluid" is deleted and replaced with the following:  
"ESSENTIALLY TOXIC TRANSFER FLUID. Soil, waste, or gray water; and any fluid that is not an essentially nontoxic transfer fluid under this code."
- (8) ~~In IPC, Section 202, the following definition is added: "High Hazard. See Contamination."~~
- (9) ~~In IPC, Section 202, the following definition is added: "Low Hazard. See Pollution."~~
- (10) In IPC, Section 202, the following definition is added: "Motor Vehicle Waste Disposal Well. An injection well that discharges to the subsurface by way of a floor drain, septic system, French drain, dry well, or similar system that receives or has received fluid from a facility engaged in vehicular repair or maintenance activities, including an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop, or any other facility that does any vehicular repair work. A motor vehicle waste disposal well is subject to rulemaking under Section 19-5-104 regarding underground injection."
- (11) ~~In IPC, Section 202, the following definition is added: "Pollution (Low Hazard). An impairment of the quality of the potable water to a degree that does not create a hazard to the public health but that does adversely and unreasonably affect the aesthetic qualities of such potable water for domestic use."~~
- (12) In IPC, Section 202, the definition for "Potable Water" is deleted and replaced with the following: "Potable Water. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, Chapter 4,



Safe Drinking Water Act, and Title 19, Chapter 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."

(13) In IPC, Section 202, the following definition is added: "Swing Connection.

Amended by Chapter 20, 2019 General Session

**15A-3-303 Amendments to Chapter 3 of IPC.**

(1) In IPC, Section 303.4, the following exception is added:

"Exception: Third-party certification for backflow prevention assemblies will consist of any combination of two certifications, laboratory or field. Acceptable third party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides the only field testing of backflow protection assemblies. Also see [www.drinkingwater.utah.gov](http://www.drinkingwater.utah.gov) and Division of Drinking Water Rule, Utah Administrative Code, R309-105-12(4)."

(2) IPC, Section 311.1, is deleted.

(3) In IPC, Section 312.3, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic drainage and vent pipe may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.
2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.
3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.
4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.
5. No drain and vent system shall be pressurized in excess of 6 psi as measured by accurate gauges graduated to no more than three times the test pressure.
6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.
7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(4) In IPC, Section 312.5, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic water pipes may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.
2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.
3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.
4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.



5. Water supply systems shall be pressure tested to a minimum of 50 psi but not more than 80 psi as measured by accurate gauges graduated to no more than three times the test pressure.
6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.
7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(5) IPC, Section 312.10.2, is deleted and replaced with the following: "312.10.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation or within 10 days of being placed into service, immediately after repairs or relocation and at least annually. The Utah Cross Connection Control Commission has adopted the field test procedures published by the Manual of Cross-Connection Control, Tenth Edition. This manual is published by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research. Test gauges shall comply with ASSE 1064."

- (5) (6) A new IPC, Section 312.10.3, is added as follows: "312.10.3 Tester Qualifications. Testing shall be performed by a Utah Certified Backflow ~~Preventer~~ Assembly Tester in accordance with Utah Administrative Code, R309-305." Amended by Chapter 20, 2019 General Session

#### **15A-3-304 Amendments to Chapter 4 of IPC.**

- (1) In IPC, Table 403.1, the following changes are made:
  - (a) In row number "3", for in the field for "OTHER", a new footnote h is added.
  - (b) In row number "5", for "Adult day care and child day care" occupancy, in the field for "OTHER", a new footnote h is added.
  - (c) Footnote f is deleted and replaced with the following: "FOOTNOTE f: The required number and type of plumbing fixtures for outdoor public swimming pools shall be in accordance with Utah Administrative Code, R392-302 Design, Construction and Operation of Public Pools."
  - (d) A new footnote g is added as follows: "FOOTNOTE: g: When provided, in public toilet facilities, there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms. Diaper changing facilities shall meet the requirements of ASTM F2285-04 (2010) Standard Consumer Safety Performance Specifications for Diaper Changing Tables for Commercial Use."
  - (e) A new footnote h is added to the table as follows: "FOOTNOTE h: Non-residential child care facilities shall comply with the additional sink requirements of Utah Administrative Code, R381-60-9, Hourly Child Care Centers, R381-70-9, Out of School Time Child Care Programs, and R381-100-9, Child Care Centers."
- (2) A new IPC, Section 406.3, is added as follows: "406.3 Automatic clothes washer safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in accordance with Section 504.7."
- (3) A new IPC, Section 413.5, is added as follows: "413.5 Public toilet rooms. All public toilet rooms shall be equipped with at least one floor drain."
- (4) A new IPC, Section 413.6, is added as follows: "Prohibition of motor vehicle waste disposal wells. New and existing motor vehicle waste disposal wells are prohibited. A motor vehicle waste disposal well associated with a single family residence is not subject to this prohibition."



(5) IPC, Section 423.3, is deleted.

Amended by Chapter 441, 2020 General Session

### **15A-3-305 Amendments to Chapter 5 of IPC.**

- (1) IPC, Section 502.4, is deleted and replaced with the following: "502.4 Seismic supports. As a minimum requirement, water heaters shall be anchored or strapped to resist horizontal displacement caused by earthquake motion. Strapping shall be at points within the upper one third and lower one-third of the appliance's vertical dimensions. "
- (2) In IPC, Section 504.6, a new number 15 is added as follows: "15. Be installed in accordance with the manufacturer's installation instructions, not to exceed 180 degrees in directional change."
- (3) In IPC, Section 504.7.2, the following is added at the end of the section: "When permitted by the code official, the pan drain may be directly connected to a soil stack, waste stack, or branch drain. The pan drain shall be individually trapped and vented as required in Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044, a barrier type floor drain trap seal protection device meeting ASSE 1072, or a deep seal p-trap."
- (4) A new IPC, Section 504.7.3, is added as follows: "504.7.3 Pan Designation. A water heater pan shall be considered an emergency receptor designated to receive the discharge of water from the water heater only and shall not receive the discharge from any other fixtures, devices, or equipment."

Amended by Chapter 20, 2019 General Session

### **15A-3-306 Amendments to Chapter 6 of IPC.**

- (1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Utah Code, Sections 73-3-1, 73-3-3, and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction. The source shall supply sufficient quantity of water to comply with the requirements of this chapter."
- (2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are deleted.
- (3) In IPC, Section 604, Table 604.4 is deleted and replaced with the following:

Table 604.4  
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING  
FIXTURES AND FIXTURE FITTINGS

<u>Plumbing Fixture or Fixture Fitting</u>	<u>Maximum Flow Rate or Quantity<sup>b</sup></u>
<u>Lavatory, private</u>	<u>1.5 gpm at 60 psi</u>
<u>Lavatory, public (metering)</u>	<u>0.25 gallon per metering cycle</u>
<u>Lavatory, public (other than metering)</u>	<u>0.5 gpm at 60 psi</u>
<u>Shower head</u>	<u>2 gpm at 80 psi</u>
<u>Sink faucet</u>	<u>2.2gpm at 60 psi</u>



<u>Urinal</u>	<u>0.5 gallon per flushing cycle</u>
<u>Water closet</u>	<u>1.28 gallons per flushing cycle</u>

For SI: 1 gallon per minute = 3.785 L, 1 gallon per minute = 3.785 L/m.

- a. A hand-held shower spray shall be considered to be a shower head
- b. Consumption tolerances shall be determined from reference standards

~~(3)~~(4) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated metering faucets for food service establishments. Self closing or manually operated metering faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet."

~~(4)~~(5) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water pressure booster systems. Water pressure booster systems shall be provided as required by Section 606.5.1 through 606.5.11."

~~(5)~~(6) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited installation. In no case shall a booster pump be allowed that will lower the pressure in the public main to less than the minimum water pressure specified in Utah Administrative Code R309-105-9."

~~(6)~~(7) In IPC, Section 608.1, the words "and pollution" are added after the word "contamination." (7) In IPC, Section 608.1, the following subsections are added as follows:

"608.1.1 General Installation Criteria.

An assembly shall not be installed more than five feet above the floor unless a permanent platform is installed. The assembly owner, where necessary, shall provide devices or structures to facilitate testing, repair, and maintenance and to insure the safety of the backflow technician.

608.1.2 Specific Installation Criteria.

608.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly.

A reduced pressure principle backflow prevention assembly shall be installed as follows:

- a. The assembly shall not be installed in a pit or below grade where the relief port could be submerged in water or where fumes could be present at the relief port discharge.
- b. The relief valve of the assembly shall not be directly connected to a waste disposal line, including a sanitary sewer, storm drain, or vent.
- c. The assembly shall be installed in a horizontal position, unless the assembly is listed or approved for vertical installation in accordance with Section 303.4.
- d. The bottom of each assembly shall be installed a minimum of 12 inches above the ground or the floor.
- e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.

608.1.2.2 Double Check Valve Backflow Prevention Assembly.

A double check valve backflow prevention assembly shall be installed as follows:

- a. The assembly shall be installed in a horizontal position unless the assembly is listed or approved for vertical installation.
- b. The bottom of the assembly shall be a minimum of 12 inches above the ground or the floor.
- c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance around all sides of the vault, including the floor and roof or ceiling, with adequate room for testing and maintenance.



### 608.1.2.3 Pressure Vacuum Breaker Assembly and Spill Resistant Pressure Vacuum Breaker Assembly.

A pressure vacuum breaker assembly and spill resistant pressure vacuum breaker assembly shall be installed as follows:

- a. The assembly shall not be installed in an area that could be subject to backpressure or back drainage conditions.
- b. The assembly shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.
- c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. The assembly shall not be installed below ground or in a vault or pit.
- e. The assembly shall be installed in a vertical position."

~~(7)(8)~~In IPC, Section 608.3, the word "and" before the word "contamination" is deleted and replaced with a comma and the words " or pollution" are added after the word "contamination" in the first sentence.

~~(8)(9)~~In IPC, Section 608.6, the words "with the potential to create a condition of either contamination or pollution or" are added after the word "substances."

~~(9)(10)~~In IPC, Section 608.7, the following sentence is added at the end of the paragraph: "Any direct connection between potable water piping and sewer-connected waste shall be protected by an air gap in accordance with Section 608.14.1."

~~(10)(11)~~IPC, Section 608.8, is deleted and replaced with the following: " 608.8 Stop and Waste Valves installed below grade. Combination stop-and-waste valves shall be permitted to be installed underground or below grade. Freeze proof yard hydrants that drain the riser into the ground are considered to be stop-and-waste valves and shall be permitted. A stop-and-waste valve shall be installed in accordance with a manufacturer's recommended installation instructions."

~~(11)(12)~~IPC, Section 608.14.3, is deleted and replaced with the following: " 608.14.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA-B64.3. These devices shall be permitted to be installed on residential boilers, without chemical treatment, where subject to continuous pressure conditions, and humidifiers in accordance with Section 608.17.10. The relief opening shall discharge by air gap and shall be prevented from being submerged."

~~(12)(13)~~IPC, Section 608.14.4, is deleted.

~~(13)(14)~~IPC, Section 608.16.3, is deleted and replaced with the following: " 608.16.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections to residential boilers only, without chemical treatment, and humidifiers shall be protected by a backflow preventer with an intermediate atmospheric vent."

~~(14)(15)~~IPC, Section 608.16.4, is deleted and replaced with the following: " 608.16.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure type vacuum breakers. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves shall be set in accordance with Section

~~425.3.4~~ 415.3.1. Atmospheric Vacuum Breakers - The critical level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed at the highest point, but not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served. No valves shall be installed downstream of the atmospheric vacuum breaker. The atmospheric vacuum



breaker shall not be installed where it may be subjected to continuous pressure for more than 12 consecutive hours at any time. Pressure Vacuum Breaker - The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level of the fixture ~~or device~~ and above all downstream piping and the highest point of use."

~~(15)(16)~~In IPC, Section 608.16.4.2, the following is added after the first sentence: "Add-on-backflow prevention devices shall be non-removable. In climates where freezing temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow preventer shall be used."

~~(16)(17)~~In IPC, Section 608.17.1.2, the words "or ASSE 1024" are deleted.

~~(17)(18)~~IPC, Section 608.17.2, is deleted and replaced as follows: " 608.17.2 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or AWWA C511.

Exception: The potable supply to a residential boiler without chemical treatment may be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012, ASSE 1081.1, or CSA CAN/CSA-B64.3."

~~(18)(19)~~In IPC, Section 608.17.4.1, a new exception is added as follows: "Exception: All class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a double check valve assembly. Such systems shall include written certification of the chemical additives at the time of original installation and service or maintenance."

~~(19)(20)~~IPC, Section 608.17.7, is deleted and replaced with the following: " 608.17.7 Chemical dispensers. Where chemical dispensers connect to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.14.1, Section 608.14.2, Section 608.14.5, Section 608.14.6 or Section 608.14.8. Installation shall be in accordance with Section 608.1.2. Chemical dispensers shall connect to a separate dedicated water supply line, and not a sink faucet."

~~(20)(21)~~IPC, Section 608.17.8, is deleted and replaced with the following: " 608.17.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.14.1 or Section 608.14.2."

~~(21)(22)~~A new IPC, Section 608.17.11, is added as follows: " 608.17.11 Automatic and coin operated car washes. The water supply to an automatic or coin operated car wash shall be protected in accordance with ~~Section 608.14.1 or~~ Section 608.14.2."

~~(22)(23)~~IPC, Section 608.18, is deleted and replaced with the following: " 608.18 Protection of individual water supplies. See Section 602.3 for requirements."

Amended by Chapter 20, 2019 General Session

### **15A-3-307 Amendments to Chapter 7 of IPC.**

(1) IPC, Section 701.2, is deleted and replaced with the following: "701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered by the Department of Environmental Quality, Division of Water Quality."



- (2) A new IPC Section 701.8 is added as follows: "701.8 Drainage piping in food service areas. Exposed soil or waste piping shall not be installed above any working, storage, or eating surfaces in food service establishments."
- (3) In IPC, Section 712.3.3.1, the following words are added after the word "PE": "stainless steel, cast iron, galvanized steel, brass,".

Amended by Chapter 20, 2019 General Session

**15A-3-308 Amendments to Chapter 8 of IPC.**

In IPC, Section 802.1.1, the last sentence is deleted.

Amended by Chapter 249, 2016 General Session

**15A-3-309 Amendments to Chapter 9 of IPC.**

- (1) In IPC, Section 903.1.1, when the number of inches is to be specified, "12 inches (304.8mm)" is inserted.
- (2) ~~In A new IPC, Section 903.6 the following sentence is added at the end of the paragraph:~~  
Section 903.7 is added as follows: 903.7 "Extension through a wall. "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."
- (3) In IPC, Section 905.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain, floor sink, and bath tub installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided with a wall clean out."

Amended by Chapter 297, 2013 General Session

**15A-3-310 Amendments to Chapter 10 of IPC.**

- (1) A new section 1002.4.1.6 is added as follows: "1002.4.1.6 Deep Seal Trap"
- (2) In IPC, Section 1003.3.8, the word "gravity" is inserted before the word "grease."

Amended by Chapter 20, 2019 General Session

**15A-3-311 Amendments to Chapter 11 of IPC.**

- (1) A new IPC, Section 1106.1.1, is added as follows:  
"1106.1.1 Alternate Methods.  
An approved alternate storm drain sizing method may be allowed."
- (2) IPC, Section 1109, is deleted.

Amended by Chapter 249, 2016 General Session

**15A-3-312 Amendments to Chapter 12 of IPC.**

IPC, Chapter 12, is not amended.

Enacted by Chapter 14, 2011 General Session



**15A-3-313 Amendments to Chapter 13 of IPC.**

(1) A new IPC, Section 1301.4.1, is added as follows:

"1301.4.1 Recording.

The existence of a nonpotable water system shall be recorded on the deed of ownership for the property. The certificate of occupancy shall not be issued until the documentation for the recording required under this section is completed by the property owner."

(2) IPC, Section 1301.5, is deleted and replaced with the following:

"1301.5 Potable water connections.

Where a potable water system is connected to a nonpotable water system, the potable water supply shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 608."

(3) A new section 1301.5.1 is added as follows: "1301.5.1 A system that utilizes nonpotable water (i.e., pressurized irrigation) and installs a connection to the potable water system for backup must install a Reduced Pressure Principle Assembly (RP) directly downstream of the potable water connection (Stop and Waste) and install a "swing connection" directly downstream from the (RP) installed so that either the potable water system or the nonpotable water is connected at any time to prevent a direct Cross Connection and to protect the potable water from any potential hazard from the nonpotable water system. (see Utah Code: Title19-4-112) Note: RP must be tested within 10 days of installation and annually whether the drinking water is used or not."

~~(3)~~(4) IPC, Section 1301.9.4, is deleted and replaced with the following:

" 1301.9.4 Makeup water.

Where an uninterrupted supply is required for the intended application, potable or reclaimed water shall be provided as a source of makeup water for the storage tank. The makeup water supply shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 608. A full-open valve located on the makeup water supply line to the storage tank shall be provided. Inlets to the storage tank shall be controlled by fill valves or other automatic supply valves installed to prevent the tank from overflowing and to prevent the water level from dropping below a predetermined point. Where makeup water is provided, the water level shall not be permitted to drop below the source water inlet or the intake of any attached pump."

~~(4)~~(5) IPC, Section 1302.12.4, is deleted and replaced with the following:

"1302.12.4 Inspection and testing of backflow prevention assemblies.

Testing of a backflow preventer shall be conducted in accordance with Sections 312.10.1, 312.10.2, and 312.10.3."

~~(5)~~(6) IPC, Section 1303.15.6, is deleted and replaced with the following:

"1303.15.6 Inspection and testing of backflow prevention assemblies.

Testing of a backflow prevention assembly shall be conducted in accordance with Sections 312.10.1, 312.10.2, and 312.10.3."

~~(6)~~(7) IPC, Section 1304.4.2, is deleted and replaced with the following:

"1304.4.2 Inspection and testing of backflow prevention assemblies.

Testing of a backflow preventer or backwater valve shall be conducted in accordance with Sections 312.10.1, 312.10.2, and 312.10.3."



Amended by Chapter 441, 2020 General Session

**15A-3-314 Amendments to Chapter 14 of IPC.**

IPC, Chapter 14, is deleted and replaced with the following:

"1401. Subsurface Landscape Irrigation Systems.

Graywater recycling systems utilized for subsurface irrigation for single-family residences shall comply with the requirements of UAC R317-401, Graywater Systems. Graywater recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design

Requirements for Wastewater Collection, Treatment, and Disposal Systems, and UAC R317-4, Onsite Wastewater Systems."

Amended by Chapter 20, 2019 General Session

**15A-3-315 Amendments to Chapter 15 of IPC.**

(1) In IPC, Chapter 15, the following reference standards are deleted:  
ASSE 5013-2015, ASSE 5015-2015, ASSE 5020-2015, ASSE 5047-2015, ASSE 5048-2015, ASSE 5052-98, ASSE 5056-2015, CSA B64.10-17, and CSA B64.10.1-17.

(2) In IPC, Chapter 15, the following referenced standard is added:

Standard reference number	Title	Referenced in code section number
USC-FCCCHR 10th Edition Manual of Cross Connection Control	Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531	<del>Table 608.1</del> <u>Section 312.10.2"</u>

Enacted by Chapter 249, 2016 General Session

**Part 4 Statewide Amendments to International Mechanical Code**

**15A-3-401 General provisions.**

(1) The amendments in this part are adopted as amendments to the IMC to be applicable statewide.