

A new IPC Section 101.2 is added as follows: For clarification the International Private Sewage Disposal Code is not part of the plumbing code even though it is in the same printed volume

1. In IPC Section 202 definition: for Backflow Backpressure. Low Head is deleted.
2. Definition is added: Certified Backflow Preventer Assembly Tester. A person that has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4).
3. Definition for Cross Connection is deleted and replace 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 the flow from one to the other, with the direction of flow depending on the pressure differential between the two systems (see Backflow)”.

The definition for “Potable Water” is deleted and replaced with the following: “Potable Water. Water free from impurities present in amounts to sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19 Chapters 4 And 5, and the regulations of the public health authority having jurisdiction.”

6. Table 303.4 The item listed as “Backflow prevention devices” is modified as follows: ( in) Third-Party Certified field, after the word “Required” add “ see footnote” See footnote 1”;(b) in the Third-Party Tested field the following is added: “Required see footnote1” and (c) a new footnote 1 is added as follows: “1. Third party certification will consist of any combination of two certifications, laboratory of 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, R309-305-6

7. Section 304.3 Meter Boxes. is deleted.

8. Section 311.1 is deleted.

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9. Sections 312.10 through 312.10.2 are deleted and replaced with the following:  
312.10 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested 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 Detector Assembly.”

10.section 403.1, 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 and female toilet rooms.”

11. A new IPC, Section 406.4, is added as follows: “406.4 Automatic clothes washers, shall be installed in accordance with Section 504.7”

12. A new IPC, Section 412.5, is added as follows; “412.5 Public toilet rooms All public toilet rooms shall be equipped with at least one floor drain.”

13. 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.”

14. 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.”

15 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, Section 73-3-1, 71-3-3, 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.”

16. IPC, Section 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are deleted.

17. A new IPC, Section 604.4.1, is added as follows: “604.4.1 Manually operated metering faucets. 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.”

18. 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.”

19. 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 20 psi.”

22. Section 608.6 the following is added at the end of the paragraph:”Any connection between potable water piping and sewer-connected waste shall be protected by an air gap.”

23. Section 608.7 is deleted

24. In IPC. Section 608.11. the following sentence is added at the end of the paragraph: “The coating and installation shall conform to NSF Standard 61 and application of the coating shall comply with the manufacturer’s instruction.”

25. IPC. Section 608.13.3 is deleted and replaced with the following: “608.13.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE or CAS CAN/CAS-B64.3. These devices shall be permitted to be installed on residential boilers only, without chemical treatment, where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerge.”

26 IPC. Section 608.13.4 is deleted.

27 IPC. Section 608.13.9 is deleted.

28 IPC. Section 608.15.3. is deleted and replaced with the following: “608.15.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections to residential boilers only, without chemical treatment, shall be protected by a backflow preventer with an intermediate atmospheric vent.”

29 IPC. Section 608.15.4 is deleted and replaced with the following: “608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breaker. The critical level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152mm) above the flood level rim of the fixture or device. The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level rim of the fixture or device. 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 vacuum breakers shall be installed not less than 6 inches (152mm) above the flood level rim of the fixture, receptor. Or device served. No valves shall be installed downstream of the atmospheric vacuum breaker.”

30. In IPC. Section 608.15.4.2. 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-draing froat proof hose bibb with an integral backflow preventer shall be used.”

31. In IPC, Section 608.16.2 the first sentence of the paragraph is deleted and replaced as follows: “608.16.2 Connections to boilers. The potable water supply to the residential boiler only, without chemical treatment, shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA CAN/CSA B64.3”

32 IPC Section 608.16.3. is deleted and replaced with the following: “608.16.3 Heat exchanges. Heat exchanges shall be separated from potable water by double-wall construction. An air gap open to the atmosphere shall be provided between the two walls. Exceptions:

1. Single wall heat exchangers shall be permitted when all of the following conditions are met:

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Conditions are met:

- A. It utilizes a heat transfer medium of potable water or contains only substances which are recognized as safe by the United States Food and Drug Administration (FDA);
  - B. The pressure of the heat transfer medium is maintained less than the normal minimum operating pressure of the potable water systems:  
and
  - C. The equipment is permanently labeled to indicate only additives recognized as safe by the FDA shall be used.
2. Steam systems that comply with paragraph 1 above.
  3. Approved listed electrical drinking water coolers.”

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33. In IPC. Section 608.16.4.1. a new exception is added as follows: 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 in a double check valve assembly installation and service or maintance.”

34. IPC. Section 608.16.7. is deleted and replaced with the following: 608.16.7 Chemical dispensers. Where chemical dispenser connect to the water distribution system. The water supply system shall be protected against backflow in accordance with Section 608.13.1.

Section 608.13.2. Section 608.13.6 or Section 608.13.8.”

35, IPC. Section 608.16.8. is deleted and replaced with the following: “608.16.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system shall be protected against backflow in accordance with Section 608.13.1. Section 608.13.8.”

36. A new IPC. Section 608.16.11. is added as follows: “608.16.11 Automatic and coin operated car washes. The water supply to an automatic or coin operated car wash shall be protected in accordance with Section 608.13.1 or Section 608.13.2.”

37. IPC. Section 608.17. is deleted.

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38 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 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.”

39. Section 901.3. is deleted and replaced with the following: “901.3 Chemical waste vent system. The vent system for a chemical waste system shall be independent of the sanitary vent system and shall terminate separately through the roof to the open air or to an air admittance valve provided at least one chemical waste vent in the system terminates separately through the roof to the open air.”

40 Section 904.1 when the number of inches is to be specified. “12 inches(304.8mm)” is inserted.

41. In IPC. Section 904.6 the following sentence is added at the end of the paragraph:” Vents extending the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward.”

42. 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 and floor sink installations when installed in accordance with Section 702.2,905.2 and 905.3 and provided with a wall clean out.”

43.In IPC. Section 917.8. a new exception is added as follows:  
“Exception: Air admittance valves shall be permitted in non-neutralized special systems provided that they conform to the requirements in Sections 901.3 and 702.5. are tested to ASTM F1412, and are certified by ANSI/ASSE.”

44 In IPC. Section 1002.4, the following is added at the end of the paragraph:  
“Approved Means of Maintaining Trap Seals. Approved of maintaining trap seals include the following, but are not limited to the methods cited:

- a) Listed Trap Seal Primer
- b) A hose bibb or bibs within the same room
- c) Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps which require priming. All fixtures shall be in the same room and on the same floor level as the trap primer
- d) Barrier type floor drain trap seal protection device meeting ASSE Standard 1072
- e) Deep seal p-trap”

45 IPC. Section 1104.2, is deleted and replaced with the following:  
“1104.2 Combining storm and sanitary drainage prohibited. The combining of sanitary and storm drainage systems is prohibited.”

56. IPC. Section 1108, is deleted.

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## **Appendix C is deleted and replace with the following Appendix C**

Gray Water Recycling Systems, which may be adopted by local jurisdictions only as provided under the State Construction Code: “Appendix C Gray Water Recycling Systems.

Note: Section 301.3 of this code requires all fixtures that receive water or waste to discharge to the sanitary drainage systems of the structure. In order to allow for the utilization of gray water system. Section 301.3 should be revised to read as follows: In jurisdictions which have adopted this Appendix C as amended as a local amendment as provided herein. Section 301.3 of the IPC is deleted and replaced with the following:

301.3 Connections to drainage systems. All plumbing fixtures, drains, appurtenances, and appliances used to received or discharge liquid waste or sewage shall be directly connected to the sanitary drainage systems of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems required by Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers, laundry trays, and approved clear water wastes shall not be required to discharge to the sanitary drainage systems where such fixtures discharge to an approved gray water systems for flushing of water closets and urinals or for subsurface landscape irrigation.

### **SECTION C101 GENERAL**

C101.1 Scope. The provisions of this appendix shall govern the materials, design, construction, and installation of gray water systems for flushing of water closets and urinals

See Figure2.

C101.2 Recording. The existence of gray water recycling systems shall be recorded on the deed of ownership for that property.

C101.3 Definition. The following term shall have the meaning shown herein.

**GRAY WATER.** Waste discharge from lavatories, bathtubs, showers, clothes washers, laundry trays, and clear water wastes which have a Ph of 6.0 to 9:are non-flammable: non-combustible; without objectionable odors: non-highly pigmented: and will not interfere with the operation of the sewer treatment facility.

C101.4. Permits shall be required in accordance with Section 106 and may also be required by the local health department.

C101.5 Installation. In addition to the provisions of Section C101, systems for flushing of water closets and urinals shall comply with Section C102. Except as provided for in Appendix C, all systems shall comply with provisions of the International code.

C101.6 Materials. Above-ground drain, waste, and vent piping for gray water systems shall conform to one of the standards listed in Table 702.1 Gray water underground building drainage and vent pipe shall conform to one of the standard listed in Table 702.2.

C101.7 Tests. Drain, Waste, and vent piping for gray water systems shall be tested in accordance with Section 312.

C101.8 Inspections. Gray water systems shall be inspected in accordance with Section 107.

C101.9 Potable water connections. The potable water supply to any building utilizing a gray water recycling systems shall be protected against backflow by a reduced pressure principle backflow preventer installed in accordance with this code.

C101.10 Waste water connections. Gray water recycling systems shall receive only the waste discharge of bathtubs, showers, lavatories, clothes washers, or laundry trays, and other clear water wastes which have a pH of 6.0 to 9.0: are non-flammable; non-combustible; without objectionable odors; non highly pigmented; and will not inter with the operation of the sewer treatment facility.

C101.11 Collection reservoir. Gray water shall be collected in an approved reservoir construction of durable, Nonabsorbent, and corrosion-resistant materials. The reservoir shall be a closed and gas-tight vessel. Access opening shall be provided to allow inspection and cleaning of the reservoir interior.

C101.12 Filtration. Gray water entering the reservoir shall pass through an approved cartridge filter having a design flow rate of less than 0.375 gallons per minute per square foot of effective filter area. Or a sand or diatomaceous earth filter designed to handle the anticipated volume of water.

C101.12.1 Required valve. A full-open valve shall be installed downstream of the last fixture connection to the gray water discharge pipe before entering the required filter.

C101.13 Overflow. The collection reservoir shall be equipped with an over flow pipe having the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be trapped and indirectly connected to the sanitary drainage system.

C101.14 Drain. A drain shall be located at the lowest point of the collection reservoir and shall be indirectly connected to the sanitary drainage system. The drain shall be the same diameter as the overflow pipe required in Section C101.12.

C101.15 Vent required. The reservoir shall be provided with a vent sized in accordance with Chapter 9 and based on the diameter of the reservoir influent pipe.

#### **SECTION C102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS**

C102.1 Collection reservoir. The holding capacity of the reservoir shall be a minimum of twice the volume of the water required to meet the daily flushing requirements of the fixtures supplied with gray water. But not less than 50 gallons (189 L). The reservoir shall be sized to limit the retention time of gray water to a maximum of 72 hours.

C102.2 Disinfection. Gray water shall be disinfected by an approved method that employs one or more disinfectants such as chlorine, iodine or ozone that is recommended for use with the pipes, fittings, and equipment by the manufacturer of the pipe, fittings, and equipment. A minimum of 1ppm residual free chlorine shall be maintained in the gray water recycling system reservoir.

C102.3 Makeup water. Potable water shall be supplied as a source of makeup water for the gray water system. The potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer installed in accordance

with this code. There shall be a full-open valve located on the makeup water supply line to the collection reservoir.

C102.4 Coloring. The gray water shall be dyed blue or green with a food grade vegetable dye before such water is supplied to the fixtures.

C102.5 Materials. Distribution piping shall conform to one of the standards listed in Table 605.4.

C102.6 Identification. Distribution piping and reservoirs shall be identified as containing nonpotable water. Piping identification shall be in accordance with Section 608.8

#### SECTION C103 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS

C103.1 Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of Utah Administrative Code.

R317-401, Gray Water Systems. Gray water recycling utilized for subsurface irrigation for other occupancies shall comply with Utah Administrative Code, R317.3 Design requirements for Wastewater Collection, Treatment and Disposal Systems, and Utah Administrative Code. R317-4, Onsite Wastewater systems.”

#### SECTION 204, STATEWIDE AMENDMENTS O THE IMC.

The following are adopted as amendments to the IMC to be applicable statewide:

1. In IMC Section 403. a new section 403.8 is added as follows: Retrospective effect. Removal, alteration, or abandonment shall not be required, and continued use and maintenance shall be allowed. for a ventilation system within an existing installation that complies with the requirements of the Section 402 regardless of whether the ventilation system satisfied the minimum ventilation rate requirements of prior law.”
2. IMC. Section 1101.10 is deleted.

Section 205. Statewide Amendments to the IFGC.

The following are adopted as amendments to the IFGC to be applicable statewide:

1. In IFGC. Chapter 4. Section 401. General, a new section IFGC, Section 401.9, is added as follows: “401.9 Meter protection. Fuel gas services shall be in approved location