

AS= Approved as Submitted AM= Approved as Modified R= Rejected N= Neutral				
ITEM #	PROPOSALS	COMMENTS	ASA	TC
001	102.3 Maintenance. Devices, <u>equipment</u> , or safeguards required by this code shall be maintained in accordance with the <u>manufacturer's maintenance instructions so that a hazard is not created.</u> code edition under which installed. The owner or the owner's designated agent shall be responsible for maintenance of plumbing systems. To determine compliance with this subsection, the Authority Having Jurisdiction shall be permitted to cause re-inspect a plumbing system. to be reinspected.	Concern with enforceability		R
002	102.4 Additions, Alterations, Renovations, or Repairs. ... Additions, alterations, renovations, or repairs to existing plumbing installations shall comply with the provisions for new construction. <u>Additions, alterations, or repairs or replacement of equipment in an existing system shall not create a hazard of any kind elsewhere in the system. Any</u> unless such deviations are found to be necessary and are first shall be approved by the Authority Having Jurisdiction.	Unenforceable		R
003	206.0 <u>Dead Leg. A section of pipe which contains water that has no flow, does not circulate, remains stagnant, or is infrequently used.</u> 309.0 Workmanship. 309.6 Dead Legs. <u>Dead legs shall be made as short as possible and shall contain a means of flushing or located in line with downstream fixtures.</u>	Committee Comment: Modified Dead Leg - delete rest of sentence after "no flow or does not circulated..." Modify 309.6 delete "as short as possible and shall contain" and "shall have a means of flushing" and delete remaining text. Concern that proposed wording would conflict with the UPC related to roughing in for future use.	N	AM
004	207.0 - E - Emergency Floor Drain. <u>A floor drain that does not receive discharge from any fixture drain or indirect waste pipe, and serves to protect from damage where accidental spills, leaks or fixture backups occur.</u>			AS
005	212.0 Joint, Press-Connect. A permanent mechanical joint incorporating an elastomeric seal or an elastomeric seal and corrosion resistant grip <u>or bite</u> ring. The joint is made with a pressing tool and jaw or ring that complies with the manufacturer's installation instructions.	Proponent indicated he will resolve in public comment by proposing the definition used in the product standard.	AS	R
006	218.0 Private or Private Use. Applies to plumbing fixtures in residences and apartments, to private bathrooms in hotels, and hospitals, <u>to plumbing fixtures in patient care rooms in health care facilities,</u> and to restrooms in commercial establishments where the fixtures are intended for the use of a family or an individual.	Modified to "... and hospitals and health care facilities..."	N	AM
007	New definitions for "Rehabilitation", "cured in place" and "watertight" for the rehabilitation of building sewers and sewer service lines.	Excludes other products; does not follow IAPMO style guide		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
008	207.0 – E – Effective Ground-Fault Current Path. - ... the electrical supply source and that facilitates the operation of the overcurrent protective device or ground-fault detectors on high impedance grounded systems . [NFPA 54:3.3.34] 224.0 – V – Vent Offset - ... a vertical section of the vent pipe in a different but parallel plane with respect to an adjacent section of a vertical vent pipe. [NFPA 54:3.3.102]			AS
009	Update definitions for “Critical Care Area”, “Health Care Facility’s”, “General Anesthesia and Levels of Sedation/Analgesia”, and “Medical Gas” to be in accordance with NFPA 99-2018			AS
010	301.0 General. 301.2 Minimum Standards. Pipe, pipe fittings, traps, fixtures, material, and devices used in a plumbing system shall be installed in accordance with the scope of the applicable standards for the product. Products shall be listed (third-party certified) by a listing agency ...	Not all product standards provide installation guidance within the scope; proposal is not needed as Section 309.4 already requires plumbing systems to be installed in accordance with applicable standards.	R	R
Comm. Proposal 1	Definition for <u>Expansion Tank – a vessel uses to protect closed water heating systems from excessive pressure.</u>	Concern it is limited to only water heaters		AS
011	301.0 General. 301.2 Minimum Standards. ... Unless otherwise provided for in this code, materials, fixtures, or devices used or entering into the construction of plumbing systems, or parts thereof shall be submitted to the Authority Having Jurisdiction for approval prior to the product being installed.	Modify to strike the word “ the product ” to be consisted with the UMC approved wording	R	AM
012	301.0 General. 301.2 Minimum Standards. 611.0 Water Treatment Devices Add water-conditioning and treatment equipment and also reference ASSE 1087, <i>Performance Requirements for Commercial and Food Service Water Treatment</i> . Add definition for: Water Conditioning or Treatment Device;	Sections 301.2 and 304.1 are general in nature, and should not reference specific equipment; as worded would disallow products such as showering filters that fall under NSF 177; ASSE 1087 contains the same requirements as NSF 42 and 53; NSF 44 is not included and over 700 products are listed to the NSF 44; ASSE 1087 is in draft form.	R	R
013	301.2.4 Cast-Iron Soil Pipe, Fittings, and Hubless Couplings. – ... in accordance with ASTM C1277- and or CISPI 310 for couplings and ASTM A888, ASTM A74, and or CISPI 301 for pipes and fittings...	CISPI did not support proposal		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
014	310.0 Prohibited Fittings and Practices. 310.6 Dissimilar Metals. Except for necessary valves, where Where <u>connecting intermembering or mixing of</u> dissimilar metals occurs; <u>in water distribution systems, a dielectric union or dielectric waterway shall be used.</u> † The point of connection shall be confined to exposed or accessible locations.	This proposal is not needed as 507.1 and Section 605.15 already requires dielectric unions.	R	R
015	Add IAPMO PS 95 – Pipe Support Hangers and Hooks to Table 1701.1	There are other standards and hangars of different materials		R
016	312.10.3 Firewalls. A pipe sleeve through a firewall shall have the space around the pipe completely sealed with an approved fire-resistive material in accordance with other codes.			R
017	402.0 Installation. 402.6 Flanged Fixture Connections. (remaining text unchanged) 402.6.1 Closet Rings (Closet Flanges). Closet bends or for stubs shall be cut-off <u>so as</u> to present a smooth surface even with the top of the closet ring,.... Closet rings (closet flanges) shall be adequately designed <u>, and flanged to provide a watertight joint with the floor.</u>	Section 402.2 already requires joints between fixtures and floors/walls be watertight; No technical data provided to support proposal; a closet flange is not intended to make a water-tight seal.	R	R
018	402.6 Flanged Fixture Connections. (remaining text unchanged) 402.6.3 Securing Floor-Mounted, Back-Outlet Water Closet Bowls. ... Where floor-mounted, back-outlet water closets are used, the soil pipe shall be not less than 3 inches (80 mm) in diameter. Offset, eccentric, or reducing floor closet flanges shall not be used.		AS	AS
019	403.3 Exposed Pipes and Surfaces. Water supply and drain pipes under accessible lavatories and sinks shall be insulated or otherwise be configured to protect against contact <u>and shall contain no sharp or abrasive surfaces.</u> Protectors, insulators, or both shall comply with ASME A112.18.9 or ASTM C1822.	Proponent proposed rejection.		R
020	Add additional option for accessibility compliance to IAPMO PS 94, Insulated Protectors for P-Traps Supply Stops and Risers		N	R

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021	<p>404.0 Waste Fittings and Overflows. 404.2 Overflows. Where a fixture is provided with an overflow, <u>the overflow shall comply with Section 404.2.1 or Section 404.2.2.</u> 404.2.1 Sinks and Bathtubs. It shall be unlawful to connect such overflows with any other part of the drainage system. 404.2.2 Water Closets and Urinals. except that overflows on flush tanks shall be permitted to discharge into the water closets or urinals served by them, but it shall be unlawful to connect such overflows with any other part of the drainage system. <u>Water closets with overflows shall comply with IAPMO IGC 252.</u></p>	text does not make sense since the overflow of a bathtub is intended to connect to the drain of the bathtub only; would require all water closets to comply with IGC 252 since they have overflows in the flush tank.	R	R
022	<p>407.0 Lavatories. 407.1 Application. Lavatories shall comply with ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4, ASME A112.19.12, CSA B45.5/IAPMO Z124, CSA B45.8/IAPMO Z403, CSA B45.11/IAPMO Z401 or CSA B45.12/IAPMO Z402. <u>Group wash fixtures shall comply with the requirements of Section 401.2. Every 20 inches (508 mm) of rim space of a group wash fixture shall be considered as one lavatory for determining the number of lavatories required in accordance with Table 422.1.</u> Delete footnote to Table 422.1 - ⁵Group lavatories that are 24 lineal inches (610 mm) of wash sink or 18 inches (457 mm) of a circular basin, where provided with water outlets for such space, shall be considered equivalent to one lavatory. Add definition - Group Wash Fixture. A lavatory that allows more than one person to utilize the fixture at the same time. <u>The fixture has one or more drains and one or more faucets.</u></p>		AS	AS
023	Add IAPMO IGC 127, Combined Handwashing Systems to 407.0 Lavatories		AS	R
024	<p>407.0 Lavatories. 407.3 Limitation of Hot Water Temperature for Public Lavatories. Hot water delivered from public-use lavatories shall be limited to a maximum temperature of 120°F (49°C) by a device that complies with ASSE 1070/ASME A112.1070/CSA B125.70. The water heater thermostat shall not be considered a control for meeting this provision. The maximum temperature shall be regulated by one of following means: (1) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3. (2) A thermostatic mixing valve conforming to ASSE 1017. (3) A water heater conforming to ASSE 1082. (4) A water heater conforming to ASSE 1084. 408.0 Showers.</p>	Standards not ready for publication.	N	R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
	<p>408.3 Individual Shower and Tub-Shower Combination Control Valves. ...Handle position stops shall be provided on such valves and shall be adjusted per the manufacturer's instructions to deliver The maximum mixed water temperature discharging from an individual valve shall be setting of 120°F (49°C). Water heater thermostats shall not be considered a suitable control for meeting this provision. The maximum temperature shall be regulated by one of following means:</p> <p>(1) A field adjustment and setting of the handle position stop on the shower or tub/shower combination valve set in accordance with the manufacturer's instructions.</p> <p>(2) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.</p> <p>(3) A thermostatic mixing valve conforming to ASSE 1017.</p> <p>(4) A water heater conforming to ASSE 1082.</p> <p>(5) A water heater conforming to ASSE 1084.</p> <p>(6) A temperature actuated flow reduction device conforming to ASSE 1062.</p> <p>409.0 Bathtubs and Whirlpool Bathtubs.</p> <p>409.4 Limitation of Hot Water in Bathtubs and Whirlpool Bathtubs. The maximum hot water temperature discharging from the bathtub and whirlpool bathtub filler shall be limited to 120°F (49°C) by a device that complies with ASSE 1070/ASME A112.1070/CSA B125.70. The water heater thermostat shall not be considered a control for meeting this provision. The maximum temperature shall be regulated by one of following means:</p> <p>(1) A field adjustment and setting of the handle position stop on the tub/shower combination valve complying with ASSE 1016/ASME A112.1016/CSA B125.16 set in accordance with the manufacturer's instructions.</p> <p>(2) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.</p> <p>(3) A thermostatic mixing valve conforming to ASSE 1017.</p> <p>(4) A water heater conforming to ASSE 1082.</p> <p>(5) A water heater conforming to ASSE 1084.</p> <p>410.0 Bidets.</p> <p>410.3 Limitation of Water Temperature in Bidets. The maximum hot water temperature discharging from a bidet shall be limited to 110°F (43°C) by a device that complies with ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3. The water heater thermostat shall not be considered a control for meeting this provision. The maximum temperature shall be regulated by one of following means:</p> <p>(1) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.</p> <p>(2) A thermostatic mixing valve conforming to ASSE 1017.</p> <p>(3) A water heater conforming to ASSE 1082.</p> <p>(4) A water heater conforming to ASSE 1084.</p>			

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025	<p>407.0 Lavatories. 407.3 Limitation of Hot Water Temperature for Public Lavatories. Hot water delivered from public-use lavatories shall be limited to a maximum temperature of 120°F (49°C) by a device that complies with ASSE 1070/ASME A112.1070/CSA B125.70. The water heater thermostat shall not be considered a control for meeting this provision. Exceptions: <u>(1) Lavatories in one and two-family dwellings and multiple single-family dwellings (townhouses).</u> <u>(2) Lavatories supplied by a temperature actuated mixing valve for hot water distribution systems limited to a maximum temperature of 120°F (49°C) by a device that complies with ASSE 1017.</u></p>	No technical rationale for extending requirement to residential/non-public	R	R
026	<p>407.0 Lavatories. 407.3 Limitation of Hot Water Temperature for Public Lavatories. Hot water delivered from public-use lavatories shall be limited to a maximum temperature of 120°F (49°C) by a device that complies with ASSE 1070/ASME A112.1070/CSA B125.70. The water heater thermostat shall not be considered a control for meeting this provision. 407.4 Transient Public Lavatories. Self-closing or metering faucets shall be installed on lavatories intended to serve the transient public, such as those in, but not limited to service stations, train stations, airports, restaurants, and convention halls. Transient public lavatories shall be provided with cold water, hot water or both. Hot water delivered from transient public-use lavatories shall be limited to a maximum temperature of 120°F (49°C) by a device that is in accordance with ASSE 1017 or ASSE 1070/ASME A112.18.1070/CSA B125.3. The water heater thermostat shall not be considered a control for meeting this provision.</p>	ASSE 1017 devices are not designed to be used for end use applications.	R	R
027	<p>408.0 Showers. 408.1 Application. Manufactured shower receptors and shower bases shall comply with ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSAB45.4, CSA B45.12/IAPMO Z402, or CSA B45.5/IAPMO Z124. <u>Manufactured shower receptors and shower bases with enclosures, shall comply with IAPMO IGC 154.</u></p>			R
028	<p>408.0 Showers. 408.3 Individual Shower and Tub-Shower Combination Control Valves. ... Gang showers, where supplied with a single temperature controlled water supply pipe, shall be controlled by a mixing valve that complies with ASSE 1069. Handle position, <u>temperature limiting</u> stops shall be provided on such shower and tub-shower combination valves and shall be adjusted per the manufacturer’s instructions to deliver maximum mixed water setting of 120°F (49°C). Water heater thermostats shall not be considered a suitable control for meeting this provision. <u>408.3.1 Gang Showers. Where gang showers are supplied with a single temperature-controlled water supply pipe, it shall be controlled by a mixing valve that complies with ASSE 1069.</u></p>		AS	AS

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029	408.0 Showers. 408.5 Finished Curb or Threshold. ... The immediate entire adjoining floor space to showers without thresholds shall be considered a wet location and shall comply with the requirements of the building, residential, and electrical codes. ...	Concern is with the term “entire”	N	AS
030	408.5 Finished Curb or Threshold. ... Each such receptor shall be provided with an integral nailing flange to be located where the receptor meets the vertical surface of the finished interior of the shower compartment. ...	Concern that 408.5 does not refer to product standards; current product standards do not require integral flange.	AS	R
031	408.0 Showers. 408.11 Recirculating Shower Systems. Recirculating shower systems shall comply with IAPMO IGC 330.	Concern NSF standards referenced in the IGC are set up to filter PW, not low quality water; there is no definition in the code for the system. (motion to modify was rejected)	N	R
032	Add under showers - 408.11 Drain Water Heat Recovery Units. Vertical drain water heat recovery units shall comply with <u>CSA B55.2, and be tested and labeled in accordance with CSA B55.1. Sloped DWHR unit(s) shall comply with IAPMO PS 92, and be tested and labeled in accordance with IAPMO IGC 346.</u>			R
033	409.0 Bathtubs and Whirlpool Bathtubs. Add reference to and UL 1795.	ASME/CSA A.112 already references UL 1795 along with another UL standard.	N	R
034	409.0 Bathtubs and Whirlpool Bathtubs. 409.4 Limitation of Hot Water in Bathtubs and Whirlpool Bathtubs. <u>The minimum hot water temperature supplied to the hot water side of the bathtub and whirlpool bathtub filler faucet shall be 115°F (46°C).</u> ...	text is not necessary as Section 601.2 already covers; conflicts with definition of hot water; unenforceable	R	R
035	409.0 Bathtubs and Whirlpool Bathtubs. 409.6 Installation and Access. (remaining text unchanged) 409.6.2 Whirlpool Bathtub Accessories. Whirlpool bathtub accessories, including heaters and blowers, shall be listed and labeled in accordance with UL 1795 and shall be installed in accordance with the terms of their listing and the <u>manufacturer’s installation instructions.</u>	Heaters and blowers are outside the scope of the UPC, and should be addressed in the UMC: ASME A112.19.7/CSA B45.10 already requires that electrical components comply with either UL 1795 or CSA C22.2 No. 218.2.	N	R

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036	<p>415.0 Drinking Fountains. 415.1 Application. Permanently installed electric water coolers <u>and electric bottle filling stations</u> shall also comply with UL 399. <u>Electric water coolers and electric bottle filling stations connected to the potable water distribution system and sanitary drainage system that are vented to atmosphere shall comply with ASSE 1023.</u></p> <p>417.0 Faucets and Fixture Fittings. 417.6 Beverage Faucets. Beverage faucets shall be deck-mounted at the critical level of a kitchen sink. Beverage faucets shall comply with ASME A112.18.1 / CSA B125.1. Beverage faucets that dispense electrically heated or chilled water and have a reservoir vented to the atmosphere shall comply with ASSE 1023. Electric devices that heat water shall comply with UL 499. Electric devices that chill water shall comply with UL 399.</p> <p>204.0 Beverage Faucet. A plumbing fitting connected to the potable water distribution system that is designed and intended for filling personal use drinking water bottles or containers. The fittings discharge into a kitchen sink.</p> <p>Bottle Filling Station. water filter and a <u>heating or</u> cooling system for <u>heating or</u> chilling the drinking water.</p>	The request for coolers and bottle filling stations to be certified to ASSE 1023 is outside the scope of ASSE 1023; These products are not vented to the atmosphere nor do they normally provide heated water; Products that do include a heated water option are already certified to UL 499; the referenced standard chart qualifies these as appliances and appliances are not covered in the UPC.	R	R
037	<p>416.0 Emergency Eyewash and Shower Equipment. 416.2 Water Supply. <u>Where water is supplied directly to an emergency shower or eyewash station from a water heater, the water heater shall comply with ASSE 1085.</u></p>	ASSE 1085 is not complete.	AS	R
038	<p>416.0 Emergency Eyewash and Shower Equipment. 416.2 Water Supply. Exceptions: <u>(1) Where approved by the Authority Having Jurisdiction, the temperature shall be not more than 85°F (29°C) for emergency equipment.</u> <u>(2) Where the cold water supply is above 60°F (16°C) at all times, it is not required to supply hot water to emergency equipment.</u></p>	Temperature of the water should be dictated at the site based on chemicals being used and exposed person will not properly flush with cold water.	R	R
039	<p>416.0 Emergency Eyewash and Shower Equipment. 416.4.1 Configuration for Flushing. <u>Where there is a sink in the area, the emergency eyewash and shower equipment shall be located as close as practical to the sink. The sink and emergency equipment shall share common hot and cold branch lines such that the sink is downstream of the fixture branch to the emergency equipment. The fixture branch to the emergency equipment shall be as short as practical.</u></p>	This conflicts with the requirements of ISEA Z358.1; conflicts with OSHA expectations at facilities	R	R

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040	420.0 Sinks. 420.1 Application. Add IAPMO IGC 127, Combined Handwashing Systems	Modify to strike language and move reference to Table 1701.2	AS	AM
041	Add new requirement for clothes washing machines	Does not belong in the code; code does not apply to appliances	R	R
042	Incorporation of UL 499 for Instantaneous Water Heaters		AS	AS
043	Lower First Hour Rating for water heaters due to change in test method.	Concern expressed that calculations are not correct based on the formula; it was noted that the 2018 version of the code has the proposed new numbers that are in the proposal.	AS	R
044	504.0 Water Heater Requirements. 504.1 Location (3) Household electric storage tank water heaters listed and labeled to UL174 and installed in accordance with the manufacturers installation instructions.			R
045	Deletion of “In seismic design categories C, D, E, and F....” which if approved, would require seismic protection for all water heaters, no matter where they are installed.	ASA Comment - Seismic provision should NOT be required for water heaters in areas where seismic activity is not prevalent; adds cost to the installation when it is not justified based on the fact that something “could” happen; A water heater, when filled with water, is not easily moved, especially to the point of ripping connectors off from them. Committee approved based on understanding it would only apply in areas with seismic activity.	R	AS

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046	<p>507.0 Appliance and Equipment Installation Requirements. 507.2 Water Heater Supports. Tank type water heaters shall be laterally supported to prevent the water heater from tipping over. The support shall be attached on the upper one-third of the tank. The support shall not compromise the outer shell of the tank and shall be installed in accordance with the water heater manufacturer's installation instructions.</p>	Committee commented that this item adds a burden in areas where there is not seismic activity.	R	R
47	<p>508.0 Appliances on Roofs. 508.2 Installation of Appliances on Roofs – Add ASSE Z359.1-2016, The Fall Protection Code</p>			R
48	<p>509.5 Masonry, Metal, and Factory-Built Chimneys. (remaining text unchanged) 509.5.1 Factory-Built Chimneys – Add UL 2561 Standard for Safety - 1400 Degree Fahrenheit Factory-Built Chimneys</p>			R
49	Section Chapter 5 is being revised to the latest edition of NFPA 54-2018			AS
50	<p>601.0 General. 601.2 Hot and Cold Water Required. Hot and cold water shall be provided in accordance with Section 601.2.1 and Section 601.2.2. 601.2.1 Cold Water. Except where not deemed <u>not</u> necessary for safety or sanitation by the Authority Having Jurisdiction, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed using an approved flush tank or flushometer valve. Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply. 601.2.2 Hot Water. Hot water shall be required in all occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. This requirement shall not supersede the requirements for individual temperature control limitations for public lavatories and public and private bidets, bathtubs, whirlpool bathtubs, and shower control valves <u>in Chapter 4.</u></p>		N	R

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051	<p>601.0 General. 601.2 Hot and Cold Water Required. Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply. In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. <u>In all occupancies, it shall be permitted to deliver cold water, hot water, or both for washing purposes.</u> This requirement shall not supersede the requirements for individual temperature control limitations for <u>transient</u> public lavatories and public and private bidets, bathtubs, whirlpool bathtubs, and shower control valves.</p>		R	R
052	<p>601.0 General. 601.2 Hot and Cold Water Required. Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply. In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. <u>In occupancies with transient public lavatories, it shall be permitted to deliver cold water, hot water, or both for washing purposes.</u> This requirement shall not supersede the requirements for individual temperature control limitations for <u>transient</u> public lavatories and public and private bidets, bathtubs, whirlpool bathtubs and shower control valves.</p>		R	R
053	<p>601.2 Hot and Cold Water Required. Exception: In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. <u>In all occupancies it shall be permitted to deliver water for washing purposes at a temperature that does not exceed 77°F (25°C).</u> This requirement shall not supersede the requirements for individual temperature control limitations for <u>transient</u> public lavatories and public and private bidets, bathtubs, whirlpool bathtubs and shower control valves.</p>		R	R
054	<p>601.0 General. 601.2 Hot and Cold Water Required. Except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction, e Each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed using an approved flush tank or flushometer valve.</p>		AS	AS

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	Exceptions: (1) Listed fixtures that do not require water for their operation and are not connected to the water supply. (2) <u>Where not deemed necessary for safety and sanitation by the Authority Having Jurisdiction.</u>			
055	601.0 General. 601.2 Hot and Cold Water Required Water Supply and Flushing. 601.2.1 Hot and Cold Water Required. <u>Exception: Lavatories and other handwashing fixtures installed for public use are permitted to provide water at temperatures between 65°F and 80°F (18°C and 27° C), in lieu of hot water.</u>		R	R
056	601.0 General. 601.3 Identification of a Potable and Nonpotable Water System. In buildings w Where potable water and nonpotable water systems are installed, each system shall be clearly identified in accordance with Section 601.3.1 through Section 601.3.5.	Concern is the proposal is much too broad and has unintended consequences.	R	R
057	601.0 General. 601.3 Identification of a Potable and Nonpotable Water System. In buildings where potable water and nonpotable water systems are installed, each system shall be clearly identified in accordance with Section 601.3.1 through Section 601.3.5. 601.3.1 Potable Water. Green background with white lettering <u>with the words, "POTABLE WATER."</u> 601.3.3 Alternate Water Sources. Alternate <u>non-potable</u> water source systems <u>such as gray water, reclaimed water, rainwater, or on site treated,</u> shall have a purple (Pantone color No. 512, 522C, or equivalent) background with uppercase lettering and shall be field or factory marked as follows: (1) Gray water systems shall be marked in accordance with this section with the words "CAUTION: NONPOTABLE GRAY WATER, DO NOT DRINK" in black letters. (2) Reclaimed (recycled) water systems shall be marked in accordance with this section with the words: "CAUTION: NONPOTABLE RECLAIMED (RECYCLED) WATER, DO NOT DRINK" in black letters. (3) On-site treated water systems shall be marked in accordance with this section with the words: "CAUTION: ON-SITE TREATED NONPOTABLE WATER, DO NOT DRINK" in black letters. (4) Rainwater catchment systems shall be marked in accordance with this section with the words: "CAUTION: NONPOTABLE RAINWATER WATER, DO NOT DRINK" in black letters.	Concern is lack of clarity in marking requirements.	AS	R

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058	601.0 General. 601.4 System Design Considerations. The design of the water systems shall be in accordance with ASHRAE 188. <u>Exception: Single-family residential buildings.</u>	Concern is it is more of a guideline and conducting risk management processes	N	R
059	601.0 General. 601.4 System Design. The design of building water supply and distribution systems shall be in accordance with ASHRAE 188 and shall conform to the requirements within this chapter.	Concern is it is more of a guideline and conducting risk management processes	R	R
060	Under 601.3.4 Fixtures proposal to remove all references to Table 1701.1			R
061	603.5.17 Potable Water Outlets and Valves. Potable water outlets, freeze-proof <u>non-sanitary</u> yard hydrants, combination stop-and-waste valves, or other fixtures that incorporate a stop and waste feature that drains into the ground shall not be installed underground. 603.5.17.1 Freeze Resistant Sanitary Yard Hydrant. Freeze-resistant sanitary yard hydrants shall be cable of being installed underground. 227.0 - Y - Yard Hydrant. A point-of-use valve used for non-potable water applications that is protected against freezing by draining residual water into the soil. Devices are normally installed vertically, below the frost line, and extend above grade. Yard Hydrant, Freeze Resistant Sanitary. A backflow prevention device with hose connection outlet for potable water applications. The device is normally installed in a vertical position extending from below the frost line to above grade. Residual water is stored below the frost line to prevent freezing.	Is a proprietary item.	R	R
062	Add ASSE 1024 to Table 603.2 for Backflow Prevention Devices, Assemblies and Methods and the following text: 603.3.10 Dual Check Backflow Preventer. A dual check backflow preventer consists of two independently acting check valves, forced loaded to a normally closed position.	Proposed text is a definition and the use of 1024 goes beyond the stated use.		R
Comm. Proposal 2	Add ASSE 1035 to the Code.			AS
063	Add ASSE 1012 to Table 603.2 and following text: 603.3.10 Backflow Preventer with Intermediate Atmospheric Vent. A backflow preventer with intermediate atmospheric vent consists of two independently acting check valves, forced loaded to a normally closed positon, and an intermediate chamber with a means for automatically venting to atmosphere, force loaded to a normally open position.	Concern that the ASSE standard is limited to boilers.		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
064	Incorporation of ASSE 1081, Backflow Preventer with Intermediate Atmospheric Vent and Pressure Reducing Valve with following added text: 603.5.10 Steam or Hot Water Boilers. Potable water connections to steam or hot water boilers shall be protected from backflow by a double check valve backflow prevention assembly, <u>backflow preventer with intermediate atmospheric vent and pressure reducing valve</u> , or reduced pressure principle backflow prevention assembly.....	Concern is language in the table does not limit application to boilers.		R
065	Add ASSE 1064, Performance Requirements for Backflow Prevention Assembly Field Test Kits under 603.0 Cross-Connection Control, 603.4.2 Testing.	Modified text to read “The field test gauge kit shall...”		AM
066	603.5.20 Swimming Pools, Spas, and Hot Tubs. Potable water supply to swimming pools, spas, and hot tubs shall be protected by an air gap or a <u>backflow preventer suitable for the degree of hazard, installed in accordance with the requirements for that type of device or assembly as set forth in this chapter.</u> A reduced pressure principle backflow preventer <u>in accordance with shall be provided when the following conditions exist:</u>	Concerned that new language in not enforceable.		R
067	603.0 Cross-Connection Control. 603.5.7 Outlets with Hose Attachments. Potable water outlets with hose attachments, other than water heater drains, boiler drains, <u>wall hydrants</u> , and clothes washer connections, shall be protected by a nonremovable hose bibb-type connection backflow preventer, a nonremovable hose bibb-type connection vacuum breaker, or by an atmospheric vacuum breaker installed not less than 6 inches (152 mm) above the highest point of usage located on the discharge side of the last valve. 603.5.7.1 Freeze Protection. In climates where freezing temperatures occur, a listed self-draining frost-proof hose bibb with an integral backflow preventer or vacuum breaker <u>dual check backflow preventer wall hydrant or a vacuum breaker wall hydrant with backflow protection compliant with ASSE 1019, ASSE 1053, or CSA B64.2.1.1</u> shall be used. 210.0 -H- <u>Hose Bibb. A faucet to which a hose may be attached.</u> 225.0 -W- Wall Hydrant. An assembly of pipes and valves generally installed into the exterior wall of a building to provide potable water access from inside the building. The device incorporates a hose connection at the outlet with integral backflow protection, and typically includes a feature to drain residual water when the valve is closed.	Proponent asked the proposal be withdrawn and Committee rejected based on the withdrawal.		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
068	603.0 Cross-Connection Control. 603.5.7 Outlets with Hose Attachments. <u>The nonremovable feature on hose connection backflow preventers and hose connection vacuum breakers shall be fully activated and perform its intended function before use to the satisfaction of the Authority Having Jurisdiction.</u>		AS	R
069	604.0 Materials. 604.1 Pipe, Tube, and Fittings. Pipe, tube, fittings, solvent cement, thread sealants, solders, and flux used in potable water systems intended to supply drinking water shall comply with NSF 61. Where <u>pipe</u> fittings and valves are made from copper alloys containing more than 15 percent zinc by weight and are used in plastic piping systems, they shall be resistant to dezincification and stress corrosion cracking in compliance with NSF 14.		AS	AS
070	Delete ASTM F877 from Table TABLE 604.1 MATERIALS FOR BUILDING SUPPLY AND WATER DISTRIBUTION PIPING AND FITTINGS		AS	AS
071	Same as 070		AS	AS
072	Add IAPMO PS 117-Press and Nail Connections; ASTM A554- Standard Specification for Welded Stainless Steel Mechanical Tubing; and ASTM A778- Standard Specification for Welded Unannealed Austenitic Stainless Steel Tubular Products to TABLE 604.1 and Table 1701.1.		AS	AS
073	Add ASTM F3226 – Standard Specification for Metallic Press-Connect Fittings for Piping and Tubing Systems to TABLE 604.1 and Table 1701.1.		AS	AS
074	Addition of IAPMO IGC 278 - Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing, and Fittings for Hot and Cold Water Distribution Systems to Table 604.1 and Table 1701.1.			R
075	Delete Galvanized Steel and ASTM A53 from Table 604.1, Materials for Building Supply and Water Distribution Piping and Fittings.	Insufficient data to support removing product		R
076	Delete 605.5 Galvanized Steel Pipe and Joints	Insufficient data to support removing product		R
077	Delete 604.6 Cast Iron Fittings			R
078	Add ASTM D2855, Two-Step (Primer and Solvent Cement) Method of Joining PVC or CPVC Pipe and Piping Components with Tapered Sockets to section 605.2.2 Solvent Cement Joints.	Concern language in standard is not mandatory		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
079	605.2.2 Solvent Cemented Joints. Solvent cement joints for CPVC pipe and fittings shall be clean from dirt and moisture. <u>Solvent welded joints shall be made in accordance with the pipe manufacturer's installation instructions. Solvent cemented joints shall be permitted both above and below ground.</u> Solvent cements shall comply with ASTM F493, requiring the use of a primer shall be orange in color. The primer shall be colored and shall comply with ASTM F656. Listed solvent cement that complies with ASTM F493 and that does not require the use of primers, yellow or red in color, shall be permitted for pipe and fittings that comply with ASTM D2846, 1/2 of an inch (15 mm) through 2 inches (50 mm) in diameter or ASTM F442, 1/2 of an inch (15 mm) through 3 inches (80 mm) in diameter, shall be yellow in color. Where pipe manufacturer's solvent welding installation instructions allow, these joints shall not require the use of primer. The maximum rated pressures shall not exceed 400 pounds per square inches (psi)(2758 kPa) at 73°F (23°C) and 100 psi (689 kPa) at 180°F (82°C). Pipe and fittings shall comply with the applicable standards referenced in Table 604.1. Apply primer where required inside the fitting and to the depth of the fitting on pipe. Apply liberal coat of cement to the outside surface of pipe to depth of fitting and inside of fitting. Place pipe inside fitting to forcefully bottom the pipe in the socket and hold together until the joint is set.	Concern expressed that the term "solvent weld" is not defined or used in the industry; unenforceable and current language preferable		R
080	605.6.1 Heat-Fusion Joints. Heat-fusion joints between PE pipe or tubing and fittings shall be assembled in accordance with Section 605.6.1.1 through Section 605.6.1.3 using butt, socket, and or electro-fusion heat methods.			AS
081	605.11 Polypropylene (PP) Piping and Joints. (remaining text unchanged) <u>605.11.4 Push Fit Fittings.</u> Push fit fittings for PP pipe shall comply with ASSE 1061 and shall have an approved elastomeric o-ring that forms the joint. Pipe shall be cut square, chamfered, reamed and free from debris. The fitting shall be installed in accordance with the manufacturer's installation instructions.		N	AS
082	Addition of ASTM Two-Step (Primer and Solvent Cement) Method of Joining PVC or CPVC Pipe and Piping Components with Tapered Sockets	See item 078		R
084	606.0 Valves <u>606.8 Leak Detection Devices.</u> Leak detection devices for water supply and distribution shall comply with IAPMO IGC 115 or IAPMO IGC 349. Leak detection devices shall not be installed on fire protection systems.		AS	R
Comm. Proposal 3	Add <u>All systems that circulate water by means of a pump or other mechanical device or method shall have a check valve(s) or equal device(s) installed.</u>			AS

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
085	<p>608.0 Pumps. 608.1 General. Pumps shall be installed to maintain prime and installed in accordance with the manufacturer's installation instructions. 608.2 Access. Pumps shall be accessible for repairs. 608.3 Potable Water Pumps. Pumps intending to supply drinking water shall be in accordance with NSF 61</p>	Modified to delete "to maintain prime and..." in 608.1	AS	AM
086	Add ASSE 1003 to 608.0 Water Pressure, Pressure Regulators, Pressure Relief Vavles	Poor code language		R
087	Add IAPMO Z1008, Pre-Pressurized Water Expansion Tanks to 608.3 Expansion Tanks, and Combination Temperature and Pressure-Relief Vavles			AS
088	<p>608.3 Pressure Controls. Pressure controls shall comply with Section 608.3.1. 608.3.1 Thermal Expansion Tanks, and Combination Temperature and Pressure-Relief Valves. Where a water system is provided with a check valve, backflow preventer, pressure reducing valve, or other normally closed device <u>on the building water supply pipe</u> that prevents dissipation of <u>building-water</u> pressure <u>within the building distribution piping</u> back into the water main, <u>creating a closed piping system during periods of non-use</u> and independent of the type of water heater used, shall be provided with an approved, listed, and adequately sized <u>thermal</u> expansion tank or other approved device having a similar function to control thermal expansion. Such expansion tank or other approved device shall be installed on the building side of the check valve, backflow preventer, <u>pressure reducing valve</u>, or other device and shall be sized and installed in accordance with the manufacturer's installation instructions. <u>Thermal expansion tanks shall comply with NSF 61 and shall be rated for the maximum system pressure. Thermal expansion tanks shall incorporate a flow thru-design to prevent having a dead-leg of stagnant water.</u></p>	Concern designation for pressure control only refers to one method of control and there are more that should be considered.		R
089	<p>608.3 Pressure Controls. Pressure controls shall comply with Section 608.3.1 and Section 608.3.2. 608.3.1 Thermal Expansion Tanks, and Combination Temperature and Pressure-Relief Valves. A water system provided with a check valve, backflow preventer, <u>pressure reducing valve</u>, or other normally closed device that prevents dissipation of building pressure back into the water main, independent of the type of water heater used, shall be provided with an approved, listed, and adequately sized expansion tank or other approved device having a similar function to control thermal expansion. Such expansion tank or other approved device shall be installed on the building side of the check valve, backflow preventer, <u>pressure reducing valve</u>, or other device and shall be sized and installed in accordance with the manufacturer's installation instructions. 608.3.2 Combination Temperature and Pressure-Relief Valves. A water system containing storage water heating equipment shall be provided with an approved, listed, adequately sized combination temperature and pressure-relief valve <u>with the temperature probe extending into the top 6 inches (152 mm) of the tank. The device and shall be sized and</u></p>	Concern designation for pressure control only refers to one method of control and there are more that should be considered.		R

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	installed in accordance with the manufacturer's installation instructions., except for listed nonstorage instantaneous heaters having an inside diameter of not more than 3 inches (80 mm). Each such approved combination temperature and pressure relief valve shall be installed on the water heating device in an approved location based on its listing requirements and the manufacturer's installation instructions. Each such combination temperature and pressure relief valve shall be provided with a drain in accordance with Section 608.5.			
090	608.0 Water Pressure, Pressure Regulators, Pressure Relief Valves, and Vacuum Relief Valves. 608.3.3 Hydro-Pneumatic Tanks for Domestic Water Pressure Booster Pump Systems. Hydro-pneumatic tanks for domestic water pressure booster pump systems shall be rated for the maximum system pressure and shall have a flow thru-design to prevent having a dead-leg of stagnant water. Hydro-pneumatic tanks for pressure booster systems shall be approved, listed, and sized to allow the booster pumps to shut-down during off-peak hours of operation. The Hydro-pneumatic tank and lining material shall comply with NSF 61 for potable water systems.	No standard or means to comply		R
091	608.0 Water Pressure, Pressure Regulators, Pressure Relief Valves, and Vacuum Relief Valves. 608.3 Leak Detection Devices. A leak detection device, capable of measuring flow rates down to 0.25 gallons per minute (gpm) (0.016 L/s), shall be installed after the pressure reducing valve, where required. Where a pressure reducing valve is not required, a leak detection device shall be installed after the main water shut off valve. All water contact components shall be third party certified to comply with NSF 61. Where the device includes an automatic flow control valve, the valve shall comply with the requirements of Section 606.1. The leak detection system shall include an integrated automatic notification system for alerting users of potential leaks. 608.3.1 Automatic Valves in Fire Suppression Systems. Where a fire suppression system is installed, the flow control valve shall be install where it will not shut off flow to the fire suppression system. An automatic flow control valve shall not be installed where a multipurpose fire suppression system is installed.	Concern that language is proprietary, some devices do not measure flow; to restrictive	N	R
092	608.0 Water Pressure, Pressure Regulators, Pressure Relief Valves, and Vacuum Relief Valves. 608.5 Discharge Piping (1) Equal to Not less than the size of the valve.... (8) The discharge termination point shall be readily observable.			AS
093	609.0 Installation, Testing, Unions, and Location. 609.9 Disinfection of Potable Water System. Healthcare facilities shall have the potable water systems tested according to their water management program and ASHRAE 188.	Unenforceable	R	R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
094	609.0 Installation, Testing, Unions, and Location. 609.10 Water Hammer. Add IAPMO IGC 168, Supply Stops with Integral Water Hammer Arresters	There is no need to add another standard since ASSE 1010 is already required.		R
095	Update Table 610.3 – Water Supply Fixture Units (WSFU) and Minimum Fixture Branch Pipe Sizes to change minimum Fixture Branch Pipe Size from ½ in. to 3/8 in. for Laboratory, Bar, Kitchen domestic with or without dishwasher, and Shower Per Head.	No technical data to support the number; does not account for friction loss; most shower mixing valves are sized for ½ in.	R	R
096	Change “Urinal, Hybrid” to “Urinal with Drain Cleansing Action” in Revise Table 610.3 WATER SUPPLY FIXTURE UNITS (WSFU) AND MINIMUM FIXTURE BRANCH PIPE SIZES		AS	AS
097	223.0 – U – Urinal, Hybrid. A urinal that conveys waste into the drainage system without the use of water for flushing, and automatically performs a drain-cleansing action after a predetermined amount of time. <u>Urinal with Drain Cleansing Action. A non-water urinal that performs a drain cleansing action automatically after a preset unit of time or predetermined amount of usage and is able to extract waste without the drain-cleansing action.</u>	Modify to keep the current definition but use the defined term “Urinal with Drain Cleansing Action”	AS	AM
098	611.0 Drinking Water Treatment Units. 611.1 Application. Alkaline water treatment devices shall comply with IAPMO IGC 322.	Did not receive the final copy for review		R
099	611.0 Drinking Water-Conditioning or Treatment Units Devices. 611.1 Application. Point-of-use and point-of-entry water-conditioning or -treatment devices shall comply with the appropriate standards per this section. Drinking Aesthetic water treatment units devices shall comply with NSF 42. Water treatment devices reducing potential health hazards shall comply with NSF 53. Water softeners shall comply with NSF 44. Ultraviolet water treatment systems shall comply with NSF 55. Reverse osmosis drinking water treatment systems shall comply with NSF 58. Drinking water distillation systems shall comply with NSF 62. Scale reduction devices shall comply with IAPMO/ANSI Z601.	Standard is not complete	R	R
100	611.0 Drinking Water Treatment Units. 611.5 Service. Drinking water treatment units shall be installed, maintained, or repaired by a technician certified to ASSE 22000 or as otherwise required by the Authority Having Jurisdiction	Standard is in draft form; Unenforceable and outside the UPC; often times installed by the homeowner in a residential application; some states require licensed plumber	R	R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
101	612.1 Where Required. Where residential sprinkler systems are required ... the systems shall be installed by personnel, installer, or both, certified in accordance with ASSE Series 7000 <u>or who possess documented manufacturer training</u> in accordance with this section or NFPA 13D.	Concern is addition is too broad and no over site of manufacture training		R
102	Update “hot water” to “hot-water” and “cold water” to “cold-water” throughout the code.		N	R
103	701.2 Drainage Piping. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL 723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.			AS
104	701.2 Drainage Piping. (2) ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Table 701.2 Chapter 17 and Chapter 14 “Firestop Protection.” Except for individual single-family dwelling units, DWV combustible piping materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water.	Conflicts with approved item 103		R
105	Add IAPMO IGC 342 ABS and PVC Snap-Lock DWV Fittings	Concern that it is a proprietary product		R
106	Add ASME A112-4.4 Plastic Push-Fit Drain Waste and Vent (DWV) Fittings			AS
107	Add ASTM F2764 – 6 to 60 in. PP Corrugated Double and Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications	Concern that no information provided related to joining process		R
108	Add footnote in Table 702.1 for Drainage Fixture Unit Values <u>⁹ For a bathtub to shower retrofit, a 1 1/2 (40 mm) trap and trap arm shall be permitted with a maximum shower size of 36 inches (914 mm) in width and 60 inches (1524 mm) in length. See Section 408.5 and Section 408.6.</u>	Modify proposal to have the footnote only apply to a single head trap		AM
109	Update TABLE 702.1, Drainage Fixture Unit Values to show “Urinal with Drain Cleaning Action” in place of “Urinal-Hybrid”		AS	AS
110	Revise footnote 4 to Table 703.2 Maximum Unit Loading and Maximum Length of Drainage and Vent Piping related to 3 in. Max Units	Modified current proposal to “ <u>five</u> water closets or <u>five</u> six-unit trap s”		AM

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
	4 Only Not to exceed four water closets or six-unit traps allowed on a vertical pipe or stack, and not to exceed three water closets or six-unit traps on a horizontal branch or drain.			
111	Revise footnote 4 to Table 703.2 Maximum Unit Loading and Maximum Length of Drainage and Vent Piping related to 3 in. Max Units 4 Only Not to exceed four water closets or six-unit traps allowed on a vertical pipe or stack, and not to exceed three water closets or six-unit traps on a horizontal branch or drain.	Based on approval of 110		R
112	Add footnote to Table 703.2 Maximum Unit Loading and Maximum Length of Drainage and Vent Piping for 1 ½ in. Vertical Max Unit. 7 Up to 8 public lavatories are permitted to be installed on a 1-1/2 inch (40 mm) horizontal sanitary branch sloped at ¼ inch per foot (20.8 mm/m).	Incomplete submittal and not clear of footnote is correctly placed		R
113	704.3 Commercial Sinks. Pot sinks, scullery sinks, dishwashing sinks, silverware sinks, and other similar fixtures shall be connected directly to the drainage system. A floor drain shall be provided adjacent to the fixture, and the fixture shall be connected on the sewer side of the floor drain trap sink, provided that no other drainage line is shall be connected between the floor drain waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented in accordance with this code.			AS
114	704.3 Commercial Sinks. Pot sinks, scullery sinks, dishwashing sinks, silverware sinks, and other similar fixtures, shall be connected directly to the drainage system. A floor drain shall be provided adjacent to the fixture, the floor drain waste connection shall be located upstream of any horizontal waste line connected to the directly-connected fixture, and the fixture shall be connected on the sewer side of the floor drain trap, provided that No other drainage line is shall be connected between the floor drain waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented in accordance with this code.	Based on acceptance of 113		R
115	705.2.2 Mechanical Joints and Compression Joints. - Hubless joints shall be restrained in accordance with CISPI 310 to withstand a thrust force associated with 40 feet (12 192 mm) of water head pressure (119.3 kPa). Restraint systems shall be third party certified to this requirement and shall be installed in accordance with the manufacturer's installation instructions.	Proponent withdrew the proposal		R
116	Add ASME A112.4.4 for Nonremovable push fit fittings.	Based on approval on 106		R
117	Add ASTM D 2855 Two Step (Primer and Solvent Cement) Method for Joining PVC or CPVC Pipe and Piping Components with Tapered Sockets	Standard is not written in mandatory language		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
118	706.0 Changes in Direction of Drainage Flow. <u>706.3.1 Horizontal Branch Drains. Horizontal branch drains, the lowest level connecting to the building drain, shall be rolled up to enter the building drain above the centerline of the building drain to minimize loss of hydraulic depth-of-flow in the building drain and sewer. (see Figure 706.3.1(1) and Figure 706.3.1(2))</u>	Concern that configuration proposed would not be workable in some applications.		R
119	706.0 Changes in Direction of Drainage Flow. 706.4 Vertical to Horizontal. Vertical drainage lines connecting with horizontal drainage lines shall enter through 45 degree (0.79 rad) wye branches, combination wye and one eighth bend branches, or other approved fittings of equivalent sweep. Branches or offsets of 60 degrees (1.05 rad) shall be permitted to be used where installed in a true vertical position. <u>Double sanitary tees shall be permitted to be used where the barrel of the fitting is not less than two pipe sizes larger than the largest inlet.</u> <u>Exception: Fixture drains from up to two lavatories.</u>	Current code language does not prohibit use of the fitting	N	R
120	707.0 Cleanouts - Add ASME A112.36.2, CISPI 301, CSA B79, IAPMO IGC 78, IAPMO IGC 224 or IAPMO PS 90 to	Current language is preferred		R
121	707.0 Cleanouts. 707.3 Watertight and Gastight. Cleanouts shall be designed to be watertight and gastight. <u>Threaded plugs and caps shall be installed or reinstalled with antiseizing compound applied to threads to assure plug removal for upper sewer lateral emergency access. Sewer backup overflow devices shall be required by the Authority Having Jurisdiction in lieu of a threaded clean out plug on the upper sewer lateral cleanout riser, and shall be approved by the Authority Having Jurisdiction in writing to building and home owners on a case by case basis for mitigation issues.</u>	Unclear, restrictive, no standard for antiseizing compounds		R
122	707.0 Cleanouts. 707.4 Location. Each horizontal drainage pipe shall be provided with a cleanout Exceptions: (3) Excepting the building drain, its horizontal branches, kitchen sinks, and urinals, a cleanout shall not be required on a pipe or piping that is above the floor level of the lowest floor of the building.		R	AS
123	Add ASTM 3097, Installation of an Outside Sewer Service Cleanout through a Minimally Invasive Small Bore Vacuum Excavation to 707.5 and 719.4 for Cleanouts	It was noted it is a proprietary item and the current code would not prevent the method		R
124	Add IAPMO IGC 290 for Bedpan Liner Macerators to section 710.13			R
125	715.0 Building Sewer Materials.	CISPI opposes the deletion		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
	715.3 Existing Sewers. Replacement of existing building sewer and building storm sewers using trenchless methodology and materials shall be installed in accordance with ASTM F1216. Cast iron soil pipes and fittings shall not be repaired or replaced by using this method aboveground or belowground.			
126	715.0 Building Sewer Materials. Add requirements for Sewer Service Lateral Rehabilitation and reference to ASTM F2529 and ASTM F2561	Proposal favors one patented product		R
127	804.0 Indirect Waste Receptors. 804.1 Standpipe Receptors. No standpipe receptor for a clothes washer shall extend more than 30 inches (762 mm), or not less than 18 inches (457 mm) above its trap weir			AS
128	811.0 Chemical Wastes. 811.1 Pretreatment. (remaining text unchanged) 811.1.2 Chemical waste having an NFPA health, flammability or reactivity rating of 3 or 4 shall have a receptor as required in the Mechanical Code.	Noted that the proposal is already covered in 811.1.1.		R
129	814.0 Condensate Waste and Control. 814.2 Condensate Control. Where any equipment or appliance is installed in a space where damage is capable of resulting from condensate overflow, other than damage to replaceable lay-in ceiling tiles, a drain line shall be provided.....			AS
130	Adding "roof drains" to 814.5 point of discharge for condensate waste and control			AS
131	903.0 Materials. 903.1 Applicable Standards. (2) ABS and PVC DWV piping installations shall be in accordance with Chapter 14 "Firestop Protection." Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50 where tested in accordance with ASTM E84 or UL 723. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.			AS
132	Delete the term "exemption" from 904.2 Lengths under 904.0 Sizing of Vents. (editorial)			AS

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133	<p>907.0 Vent Stacks and Relief Vents. 907.1 Drainage Stack. <u>Exception: For sanitary stacks that serve only emergency fixtures, parallel vent stacks may be omitted, provided that a stack vent of equal diameter is located above the highest fixture connection.</u></p>	Concern is how it will be prevented from tying into at a later time.		R
134	<p>911.0 Circuit Venting. 911.2 Dry Vent Size and Connection. The <u>dry vent connection to the</u> circuit vent shall be not less than 2 inches (50 mm) in diameter, and <u>the connection</u> shall be located between the two most upstream fixture drains. The <u>dry</u> vent shall connect <u>vertically into to</u> the horizontal <u>drain acting as the circuit vent branch on the vertical</u>. The <u>dry vent circuit vent pipe</u> shall not receive the discharge of soil or waste.</p>	Based on acceptance of 135		R
135	<p>911.0 Circuit Venting. 911.1 Circuit Vent Permit Significant changes intended to rectify confusion by adding significant clarity to the provisions of the code, correcting improper terminology, removing uncertain phrases, and by arranging the provisions more suitable to the components of the system.</p>	Modify after “back outlet <u>and wall hung</u> ”		AM
136	<p>912.0 Engineered Vent System. 912.2 Minimum Requirements. An engineered vent system shall provide protection of the trap seal in accordance with Section 901.3. <u>The engineered vent system shall be tested in accordance with Section 712.1 and tested with water in accordance with Section 712.2 or tested with air in accordance with Section 712.3.</u></p>	Code already states the system needs to be tested. In accordance with 301.6		R
137	<p>912.0 Engineered Vent System. <u>912.3 Minimum Maintenance. The premise owner or responsible person shall have the engineered vent system tested at the time of installation, repair, or relocation and not less than on an annual schedule thereafter, or as required by the Authority Having Jurisdiction. The periodic testing shall be performed in accordance with Section 712.1 and tested with water in accordance with Section 712.2 or tested with air in accordance with Section 712.3.</u></p>	Not enforceable; it is not clear how the system would be tested; who is responsible for doing the test		R
138	<p>912.0 Engineered Vent System. <u>912.4 Maintenance Documentation. A brief and legible handwritten record of any and all specific work and testing done to an engineered vent system (e.g., the date, time, and result(s)/observation(s) of the operational functionality after</u></p>	Not enforceable; it is not clear how the system would be tested; who is responsible for doing the test		R

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	<u>application of tests) shall be affixed and visible (within a clear plastic envelope) onto each engineered vent system for any future reference or inspection. Records shall be maintained and updated not less than on an annual schedule.</u>			
139	<p>1001.0 General. 1001.2 Where Required The vertical distance between a fixture outlet and the trap weir shall be as short as practicable, but in no case shall the tailpiece from a fixture exceed 24 inches (610 mm) in length.....</p>	Concern is it is not clear what deleted the phrase achieves; it was noted that the deletion clarifies confusion on the length		AS
140	<p>1002.0 Traps Protected by Vent Pipes. 1002.2 Fixture Traps. Each fixture trap shall have a protecting vent so located that the developed length of the trap arm from the trap weir to the inner edge of the vent shall be within the distance given in Table 1002.2, but in no case less than two times the diameter of the trap arm. <i>Note- horizontal max. length of trap arms in table 1002.2 significantly increased.</i> Notes: 1 Maintain ¼ inch per foot slope (20.8 mm/m). <u>For slopes other than ¼ inches per foot (20.8 mm/m), divide the pipe diameter by the slope, to determine the maximum allowable length</u></p>	Concern is the striking out of “two times” is a factor of safety that is important		R
141	<p>1014.0 Grease Interceptors. 1014.1 General. Where it is determined by the Authority Having Jurisdiction that waste pretreatment is required, an approved type of grease interceptor(s) complies shall comply with ASME A112.14.3, ASME A112.14.4, CSA B481, PDI G-101, or PDI G-102, and sized in accordance with Section 1014.2.1 or Section 1014.3.6, shall be installed in accordance with the manufacturer’s installation instructions to receive the drainage from fixtures or equipment that produce grease-laden waste. located in areas of establishments where food is prepared, Grease-laden waste fixtures shall include but not be limited to sinks and drains, such as floor drains, floor sinks, and other fixtures or equipment in serving establishments such as restaurants, cafes, lunch counters, cafeterias, bars and clubs, hotels, hospitals, sanitariums, factory or school kitchens, or other establishments where grease is introduced into the drainage or sewage system</p>		AS	AS
142	<p>1014.0 Grease Interceptors. 1014.2 Hydromechanical Grease Interceptors. Exception: Listed grease interceptors with integral flow controls or restricting devices shall be installed in an accessible location in accordance with the instructions. <u>The integral flow controls or restricting devices shall be accessible from finished grade.</u></p>	Concern is the proposal is not operable		R

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143	<p>1101.0 General. 1101.4 Material Uses. 723. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.</p>			AS
144	<p>1101.0 General. 1101.4 Material Uses. changes in direction shall be in accordance with the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Table 1701.1 Chapter 17 and Chapter 14 "Firestop Protection." Except for individual single-family dwelling units, <u>DWV combustible pipe</u> materials exposed within ducts or plenums shall have a flamespread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL723. These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water.</p>	Rejected based on action taken on 143		R
145	Incorporation of ASTM F2306/F2306M (PE), ASTM F2881 (PP); ASTM C76 (Reinforced Concrete Pipe)	Overly restrictive and no joining methods provided; apparently no definition of building storm sewer; general overall confusion in proposal.		R
146	Addition of UL 2215 Outline of Investigative for Oil/Water Separators	Not a consensus standard and over restrictive		R
147	<p>1102.0 Roof Drains. <u>1102.3 Combined Primary and Secondary Roof Drains. Roof drains having a combined primary and secondary roof drain shall have separate and independent strainers for the primary inlet and for the secondary inlet.</u></p>	Proponent noted a mistake was made and wording needs to be revised.		R
148	Incorporation of a roof drain sizing method for engineered design systems based on research conducted by ASPE Research Foundation.	Some concern about putting an engineered system design method in the code and a non-engineer deciding they can use the method.		R

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
149	1202.0 Coverage of Piping System. 1202.3 Applications. This code shall not apply to the following items (reference standards for some of which appear in Chapter 17):			R
150	1210.0 Gas Piping Installation. 1210.1.3.2 Underground Piping. (4) The piping shall be installed within an encasement system listed for underground use or a non-metallic, watertight conduit.			R
151	1210.0 Gas Piping Installation. 1210.1.6 Piping Underground Beneath Building (3) Polyethylene sleeved-corrugated stainless steel tubing in accordance with IAPMO IGC 201.	Would allow for burial of gas pipe under a building which would be in conflict with other sections of the code		R
152	1210.3 Concealed Piping in Buildings. 1210.3.1 Connections. (3) Fittings listed for use in concealed spaces or that have been demonstrated to sustain, without leakage, forces due to temperature expansion or contraction, vibration, or fatigue based on their geographic location, application, or operation to ANSI LC 1/CSA 6.26, or ANSI LC 4/CSA 6.32.	Modify to add standards and leave in the deleted text.		AM
153	1212.0 Appliance and Equipment Connections to Building Piping. 1212.6 Appliance Shutoff Valves and Connections. Shutoff valves serving decorative appliances shall be permitted to be installed in fireplaces if listed for such use. [NFPA 54:9.6.5, 9.6.5.1(A)(B)] Exceptions: (1) Shutoff valves serving decorative appliances in a fireplace shall not be permitted to be accessibly located inside or under an appliance within the fireplace firebox except where such appliance is removed without removal of the shutoff the valve is listed for such use.			AS
154	1212.0 Appliance and Equipment Connections to Building Piping. 1212.6 Appliance Shutoff Valves and Connection (3) Where installed at a manifold, the appliance shutoff valve shall be located within 50 feet (15 240 mm) of the appliance served and shall be readily accessible and permanently identified. The piping from the manifold to within 6 feet (1829 mm) of the appliance shall be designed, sized, installed, and tested in accordance with this Chapter. [NFPA 54:9.6.5.3]	There is a safety concern with having a shut off valve so far from the appliance.		R

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155	1213.0 Pressure Testing, Inspection, and Purging. - proposal would permit the use of the pressure test criteria contain in the 2018 National Fuel Gas Code while continuing to allow the current UPC pressure test criteria when it is determined by the AHJ that an elevated pressure test is need for a particular piping installation.	Concern is test pressure is being reduced to a max. of 3 psi.		R
156	FIGURE 1215.1.1 - EXAMPLE ILLUSTRATING USE OF TABLE 12 08.4.1 AND TABLE 1215.2(1) (4) Using the column marked 60 feet (18 28 8 mm) in Table 1215.2(1) {no column for actual length of 55 feet (16 764 mm)} :			AS
157	Significant changes throughout Chapter 12 in order to be consistent with NFPA 54	Modified to eliminate the part of the proposal that would include the use of Sch 10 stainless steel		AM
158	1303.0 Health Care Facilities. 1303.3 Locations for Ice Storage. Ice makers or ice storage containers shall be located in nursing stations or similarly supervised areas to minimize potential contamination. <u>The heat load from the ice machines shall not cause room temperature to rise above 77°F (25°C) or incoming cold water temperature, whichever is higher.</u>	Concern with too many variable in trying to enforce and not sure how inspector would calculate heat load; it is a mechanical issue and belongs in UMC		R
159	1303.0 Health Care Facilities. <u>1303.9 Temperature for Hand washing. For the purposes of this section it is permissible to deliver water for hand washing purposes at a temperature that does not exceed 77°F (25°C).</u>	How will 77°F be enforced; conflicts with the requirements of Section 601.2.	R	R
160	1303.0 Health Care Facilities. <u>1303.9 Work Performed in Occupied Healthcare Facilities. In existing, occupied healthcare facilities, all plumbing systems installation, remodel, maintenance, or service work shall be performed by personnel certified in accordance with ASSE 12000.</u>	Concern with overly restrictive; appears the biggest issue is the wording and it possibly could be approved.	R	AS

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ITEM #	PROPOSALS	COMMENTS	ASA	TC
161	<p>1303.0 Health Care Facilities. 1303.9 Patient Bathrooms. Patient bathrooms shall be in accordance with the following: <u>(1) Fixture count for water demand calculations in patient rest rooms the sink and shower shall be considered as one fixture for pipe size / water demand calculations.</u> <u>(2) Sink and shower layout fixtures shall be located to minimize the number of branches and branch line lengths.</u> <u>(3) Patient showers patient showers shall have a either a shower head or a shower hose but not both unless required by patient criteria.</u> <u>(4) Configuration for flushing shower branch line to the shower mixing valve. The shower shall be located as close as practical to the sink. The sink and shower shall share common hot and cold branch lines such that the sink is downstream of the fixture branch to the shower. The fixture branch to the shower shall be as short as practical. The take-off from the shower branch line to the sink shall be located within 2 feet (610 mm) of the shower mixing valve.</u></p>	Concern it is a design issue and not a code issue; language is unenforceable	R	R
162	Add UL 1331, <i>Station Inlets and Outlets</i> under the Medical Gas section			R
163	Chapter 13 significantly revised to correlate with NFPA 99-2018 (latest version)	Modify to strike all references to corrugated metal tubing due to there being no listing program for this type of pipe. (ASTM B103)		AM
164	1501.2 System Design. Alternate water source systems shall be designed in accordance with this chapter by a licensed plumbing contractor , registered design professional, or licensed person	Modified to put a period after professional and delete " or a licensed person who demonstrates competency to design the alternate water source system as required by the Authority Having Jurisdiction "		AM
165	Addition of exemption under 1501.3 Permit for requiring a permit for single family dwellings to install a Clothes Washer System	Unenforceable		R
166	1501.5 Maintenance and Inspection. Alternate water source systems and components shall be inspected and maintained in accordance with Section 1501.5.1 through Section 1501.5.3, <u>the manufacturer's recommendations, or as required by the Authority Having Jurisdiction.</u>	Recommendations are not requirements; no uniformity among the AHJs		R
167	1501.6 Operation and Maintenance Manual. The operating and maintenance manual shall include the following: (1) Detailed d Diagram of the entire system and the location of system components.	Unenforceable and not written in mandatory language		R

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	(3) Details on maintaining the required water quality as determined by the Authority Having Jurisdiction for on-site nonpotable water systems. (7) Directions to the owner or occupant that the manual shall remain with the building throughout the life of the structure.			
168	1501.7 Minimum Water Quality Requirements. In the absence of water quality requirements, <u>for on-site treated non-potable systems, the water quality requirements of NSF 350 shall apply</u>		AS	AS
169	1502.1 General. Alternate water source systems shall be inspected and tested in accordance with Section 1502.2 through Section 1502.3.4. <u>Exception: Non-pressurized graywater or on-site non-potable water systems without any connection to a potable water system.</u>	Systems need to be inspected	N	R
170	Complete new set of requirements for 1503.2 Gray Water Collection Piping.	Unenforceable; no justification for requiring a diverter valve		R
171	Add IAPMO PS 59, Wastewater Diverter Valves and Diversion Systems to Chapter 15			AS
172	Add requirement for Rainwater Diversion Valves in rainwater diversion systems.	Rejection based on action taken in 171		R
173	Delete 1504.6.1 Single Family and Multi Family Dwellings. The gray water discharge to a mulch basin is limited to single family and multi-family dwellings. Under 1504.6 Mulch Basis Design and Construction			R
174	Addition of IAPMO IGC 324 Alternate Water Source Systems for Single Family Dwellings under section 1506 On-Site Treated Nonpotable Water Systems		R	R
175	1506.0 On-Site Treated Nonpotable Water Systems. 1506.7 On-Site Treated Nonpotable Water Devices and Systems. Devices or equipment used to treat on-site treated nonpotable water shall be listed or labeled (third-party certified) by a listing agency (accredited conformity assessment body) or approved for the intended application. Devices or equipment used to treat on-site treated nonpotable water for use in the water closet and urinal flushing, shall comply with NSF 350 or be approved by the Authority Having Jurisdiction.		R	R

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176	<p>1601.2 System Design. Rainwater catchment systems shall be designed in accordance with this chapter by a person registered or licensed to perform plumbing design work licensed plumbing contractor, registered design professional, or who demonstrates competency to design the rainwater catchment system</p> <p>Exceptions:</p> <p>(1) A person registered or licensed to perform plumbing design work is not required to design Rainwater catchment systems used for irrigation with a maximum storage capacity of 360 5 000 gallons (1363 18 927 L) <u>where the tank is supported directly upon grade and the ratio of height to width (or diameter) does not exceed 2 to 1.</u></p> <p>(2) A person registered or licensed to perform plumbing design work is not required to design Rainwater catchment systems for single family dwellings where outlets, piping, and system components are located on the exterior of the building.</p>	Concern something as large as 5,000 gallons is not a designed system; modification made to eliminate changes in the Exceptions statement but leave remaining changes and delete “or who demonstrates competency”		AM
177	<p>1601.3 Permit</p> <p>(1) A permit is not required for exterior rainwater catchment systems used for outdoor drip and subsurface irrigation with a maximum storage capacity of 360 5 000 gallons (1363 18 927 L) <u>where the tank is supported directly upon grade and the ratio of height to width (or diameter) does not exceed 2 to 1 and it does not require electrical power or a make-up water supply connection.</u></p>	Based on approval of 176		R
178	<p>1601.7 Minimum Water Quality Requirements.</p> <p>Exceptions - (2) Water treatment is not required for rainwater catchment systems used for nonspray subsurface or drip irrigation.</p>			R
179	Add ARCSA/ASPE 63 – Rainwater Catchment Systems to Table 1701.2 – Standards, Publications, Practices and Guides	Modified editorially to Table 1701.1		AS
180	<p>1602.8 Rainwater Catchment Water System Color and Marking Information. Rainwater catchment systems shall have a colored background in accordance with Section 601.3. Rainwater catchment systems shall be marked or field-marked, in lettering in accordance with Section 601.3.3, with the words: “CAUTION: NONPOTABLE RAINWATER WATER, DO NOT DRINK.”</p>	Modified to strike “ or field-marked ”.		AM
181	<p>1603.0 Design and Installation.</p> <p>1602.9.1 1603.1 Outside Hose Bibbs. Outside hose bibbs shall be allowed on rainwater piping systems. Hose bibbs supplying rainwater shall be marked with the words: “CAUTION: NONPOTABLE <u>RAIN</u>WATER, DO NOT DRINK” and in Figure 1602.9.1 1603.1.</p>			AS
182	<p>Rainwater Catchment Systems</p> <p><u>Exception: No treatment is required for rainwater used for subsurface or nonsprinkled surface irrigation where the maximum storage volume is less than 360 gallons (1 363 L).</u></p>			AS

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	<u>1603.4.1 Treatment. If the quality of the tested water cannot consistently be maintained at the minimum levels specified in Table 1603.4, then the system shall be equipped with an appropriate treatment device meeting applicable NSF Standard referenced in Table 1701.1.</u>			
183	Revise Appendix E to be consistent with the latest edition of NFPA 501A			AS
184	Revise Appendix G to be consistent with latest edition of NFPA 54			AS
185	K 101.7 Minimum Water Quality Requirements. The minimum water quality for all potable rainwater catchment systems shall comply with the applicable water quality requirements as determined by the public health Authority Having Jurisdiction. <u>In the absence of water quality requirements, the guidelines EPA/625/R-04/108 contains recommended water reuse guidelines to assist regulatory agencies develop, revise, or expand alternate water source water quality standards.</u>			AS
186	K 103.2 Rainwater Catchment System Drainage Materials. <u>Materials used in rainwater catchment drainage systems, including gutters, downspouts, conductors, and leaders shall be in accordance with the requirements of this code for storm drainage. Gutters and downspouts used in rainwater catchment drainage systems shall comply with NSF Protocol P151, and leaders and conductors shall be listed to NSF 61.</u>	Overly restrictive		R
187	Appendix K proposed revisions created to distinguish private potable water systems from public use occupancies that would fall under the EPA requirements			AS
188	Moving sections from K 106.0 and K 106.2 to K 104.4 and K 104.4.3 to combine all the provisions.			AS
189	K 105.11 Pumps. Pumps serving rainwater catchment systems shall be listed for potable water use. Pumps supplying water to water closets, urinals, and trap primers shall be capable of delivering not less than 15 pounds-force per square inch (psi) (103 kPa) the minimum residual pressure required by at the highest and most remote outlet served.			AS
190	Adding definitions in Appendix L for various Landscaping Terms			AS
191	L 201.0 Definitions Gang Showers (Non-Residential). Shower compartments designed and intended for use by multiple persons simultaneously in non-residential occupancies.		N	AS

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192	L 201.0 Definitions <u>WaterSense. A voluntary program of the U.S. Environmental Protection Agency designed to identify and promote water-efficient products and practices.</u>	Definition already exists in Appendix L		R
193	L 301.0 General Regulations. L 301.3 System Design Considerations. The design of the water distribution systems shall be in accordance with ASHRAE 188. Exception: Single-family residential buildings.		N	R
194	Put an exception for Composting Toilets to the disposal guidelines noted in Appendix L 302.1		N	R
195	L 402.2 Water Closets. No water closet shall have an <u>effective</u> flush volume exceeding 4.6 <u>1.28</u> gallons per flush (gpf) (6.0 <u>4.8</u> Lpf). L 402.2.2 Flushometer-Valve Activated Water Closets. Flushometer-valve activated water closets shall have a maximum flush volume of not more than 4.6 <u>1.28</u> gallons (6.0 <u>4.8</u> L) of water per flush in accordance with ASME A112.19.2/CSA B45.1 <u>and shall be listed to the EPA WaterSense Specification for Flushometer-Valve Water Closets.</u>	Wording does not include “effective flush” as noted in WeStand; also, see 197 which was accepted	N	R
196	Add exemption to the requirements of that Nonwater urinals comply with shall comply with ASME A112.19.3/CSA B45.4, ASME A112.19.19 or CSA B45.5/IAPMO Z124 for Nonwater urinals used as part of a composting toilet system	Composting Toilet Systems not covered in UPC		R
197	L 402.6 Showerheads. Showerheads shall comply with the requirements of the Energy Policy Act of 1992, except that the flow rate shall not exceed <u>a flow rate of 2.0 gpm (7.6 L/m) at 80 psi (552 kPa), where</u> and shall be <u>listed to ASME A112.18.1/CSA B125.1 and the EPA WaterSense Specification for Showerheads.</u>		N	AS
198	L 402.6.1 Multiple Showerheads Serving One Shower Compartment. Exceptions: (2) Where provided, <u>accessible</u> shower compartments <u>required for persons with disabilities in accordance with Table 1701.1</u> shall not be permitted to have more than 4.0 gpm (15 L/m) total flow, where one outlet is the hand shower. The hand shower shall have control with a nonpositive shutoff feature.		N	AS
199	L 402.6.2 Bath and Shower Diverters. The rate of leakage out of the tub spout of bath and shower diverters while operating in the shower mode shall not exceed 0.1 gpm (0.4 L/m) in accordance with ASME A112.18.1/CSA B125.1. Tub spout bath and shower diverters, while operating in the shower mode, shall perform with zero leakage.	The proposed zero leakage requirement is a potential safety hazard due to thermal shock risk; the rate of leakage for a tub spout bath	R	R

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		and shower diverter is determined in a laboratory based on the requirements of Section 5.3.6.1 of ASME A112.18.1/CSA B125.1, and not in the field.; as written, this code section does nothing to prevent unnecessary leakages of a diverter		
200	<p>L 402.6.3 Shower Valves. Shower valves shall comply with the temperature control performance requirements of ASSE 1016 or ASSE 1016/ASME A112.18.1/CSA B125.1 where when tested <u>for the rated flow rate of the installed showerhead at 2.0 gpm (7.6 L/m).</u></p> <p>L 402.6.3.1 Marking. <u>Control valves for showers and tub-shower combinations shall be tagged, labeled, or marked with the manufacturer's minimum rated flow and such marking shall be visible after installation.</u></p>	Marking requirements are already addressed in the applicable product standards (ex: ASSE 1016/ASME A112.1016/CSA B125.16 - Section V); proponent failed to provide any data or evidence that any such markings would improve upon the safety provisions; Markings on escutcheons or other trim components are not possible in all applications; What does "shall be visible after installation" mean?	R	R
201	L 402.7 Commercial Pre-Rinse Spray Valves. Pre-rinse spray valves shall be listed to the EPA WaterSense Specification for Commercial Pre-Rinse Spray Valves Specification.		N	AS
202	L 402.9 Drinking Fountains and Bottle Filling Stations. <u>Bottle filling stations shall be included on or used as a substitute to meet the requirements of drinking fountains in at least 50 percent of the requirements for drinking fountains. Bottle filling stations and drinking fountains shall be self-closing.</u>	Concern that it is requiring bottle stations	AS	R
203	Addition of requirements for Composting Toilet and Urine Diversion Systems into Appendix L	Rejections based on 194 and 196; belief that it goes against the code; it does not collect to water or waste so it does not belong in UPC; needs to be an engineer system		R
204	L 404.2 Ice Makers. Ice makers shall be air cooled and shall be in accordance with Energy Star for commercial ice machines. <u>Ice makers producing cubed-type ice shall not exceed 20 gallons of water per 100 pounds of ice produced. Ice makers producing nugget and flake ice shall not exceed 14 gallons of water per 100 pound of ice produced.</u>			AS

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205	<p>L 404.3 Food Steamers. Boilerless type Ssteamers shall consume not more than 5.0 2.0 gallons (19 7.6 L) per compartment hour per steamer pan in the fully operational mode. Boiler type steamers shall not consume more than 1.5 gallons (5.7 L) per pan per hour.</p> <p>L 404.4 Combination Ovens. Combination ovens shall not use water in the convection mode except when utilizing a moisture nozzle for food products in the oven. The total amount of water used by the moisture nozzle in the convection mode shall not exceed a half a gallon per hour per oven cavity. When operating in the steamer mode, combination ovens shall not consume more than 3.5 1.5 gallons per hour (gph) (13.2 5.7 L) per pan in the fully operational mode.</p>			AS
206	<p>L 404.6 Dipper Well Faucets. Where dipper wells with a permanent water supply are installed, the water supply to a dipper well shall have a shutoff valve and flow control. The flow of water into a dipper well shall be limited by not less than one of the following methods: Section L 404.6.1 or Section L 404.6.2.</p> <p>(1) L 404.6.1 Maximum Continuous Flow. Water flow shall not exceed the water capacity of the dipper well in one minute at supply pressure of 60 psi (414 kPa), and the maximum flow shall not exceed 2.2 0.2 gpm (8.3 0.8 L/m) at a supply pressure of 60 psi (414 kPa). The water capacity of a dipper well shall be the maximum amount of water that the fixture can hold before water flows into the drain.</p> <p>(2) L 404.6.2 Metered or Sensor Activated Flow. The volume of water dispensed into a dipper well in each activation cycle of a self-closing fixture fitting shall not exceed the water capacity of the dipper well, and the maximum flow shall not exceed 2.2 0.2 gpm (8.3 0.8 L/m) at a supply pressure of 60 psi (414 kPa).</p>	Concerns with potential health concerns on having too low of a flow.		R
207	<p>L 404.7 Food Waste Devices. Where installed food waste devices shall be in accordance with Section L 404.7.1 through Section L 404.7.5.</p> <p>L 404.7.1 Pulpers and Mechanical Strainers. The water use for the pulpers or mechanical strainers shall not exceed 2 gpm. A flow restrictor shall be installed on the water supply to limit the water flow.</p> <p>L 404.7.2 Food Waste Disposers. The water use for the food waste grinder shall not exceed the 8 gpm under full load condition and 1 gpm under no-load condition. Flow restrictors shall be installed on the water supply to limit the water flow rate to a maximum of 8 gpm. A load sensing device shall be installed to monitor current demand and regulate water flow.</p> <p>L 404.7.3 Time Out and Shut Off. Pulpers, mechanical strainers, and food waste disposers shall have a time out system with push button to reactivate. The maximum allowable run time cycle shall be 10 minutes.</p> <p>L 404.7.4 Sink Drain Outlets. Where a strainer or basket is installed they shall be readily removable.</p> <p>L 404.7.5 Strainer Baskets. Strainer (scraper) baskets shall either fit over a sink compartment or be attached to a drain system. The strainer baskets shall be readily removable for emptying.</p>	No justification behind the numbers		R

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208	L 405.0 Leak Detection and Control. Add IAPMO IGC 115		N	R
209	Appendix L 407.0 Meter - Meter requirements were expanded into a Table format and aligns with ASHRAE 191			R
210	L 410.0 Water Softeners and Treatment Devices <u>Water softeners for non-residential potable use applications shall be sized as small as possible for the application and to regenerate every 72 hours or less. When using fixture count to determine peak water demand the softener sizing shall be based on softener rated peak flow. Softeners used for water intended for cold potable water use shall be approved by the Authority Having Jurisdiction.</u>			R
211	L 410.1 Water Softeners. Actuation of regeneration of water softeners shall be by demand initiation. Water softeners shall be listed to NSF 44., and shall not generate more than 5 4 gallons (19-15.1 L) of water per 1000 grains (0.0647 kg) of hardness removed during the service cycle.			AS
212	<u>L 410.4 Drinking Water Treatment Systems. Drinking water treatment systems shall be listed to WQA/ASPE S-803.</u>	Concern that the standard does not cover all DWTU systems; a copy of WQA/ASPE S-801 was not included with the submittal	R	R
213	L 411.0 Landscape Irrigation Systems. L 411.1 General. Where landscape irrigation systems are installed, they shall use low application irrigation methods and shall be in accordance with Section L 411.2			AS
214	Revisions to L411.0 covering irrigation Design and Installation	Concern with velocities and reference to purple pipe		R
215	Revisions to L 411.5 Irrigation Control Systems would assure that sensor-based controllers that are not WaterSense labeled meet these water-saving requirements	Does not fall into scope of UPC; unclear language		R
216	L 411.57 Low Flow Irrigation. Irrigation zones using low flow irrigation emitters shall comply with ASABE/ICC 802 Landscape Irrigation Sprinkler and Emitter Standard and shall be equipped with filters sized for the irrigation emission devices according to manufacturer's recommendation for the specific low flow emitter, and with a pressure regulator installed upstream of the irrigation emission devices as necessary to reduce the operating water pressure in accordance with the manufacturers' equipment requirements. L 411.68 Mulched Planting Areas. Only low volume-flow emitters are allowed to be installed			AS
217	<u>L 411.6 Irrigation Flow Sensing System. On commercial landscape irrigation systems, an irrigation flow sensing system shall be installed that shall interface with the control system to suspend irrigation for abnormal flow conditions. If equipped with totalizer capabilities, the irrigation flow sensing system shall also function as a meter for irrigation water.</u>	Unclear language such as "abnormal flow" and "totalizer capabilities"		R

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218	The landscape irrigation system, System Performance Requirements. <u>Exception: Landscape features outside of the public right of way such as paved walkways, jogging paths, and golf cart paths, are exempted from this requirement where run off drains into the same hydrozone without puddling.</u>	Does not appear to be relevant to the UPC		R
219	Editorial numbering change to Narrow or Irregularly Shaped Landscape Areas			AS
220	Revisions to L411.11 Irrigation System Inspection and Performance Check	Unenforceable		R
221	Revisions to Irrigation System, Sprinkler Head Installation	Modify to keep deletions and only keep the ASABE/ICC 802 addition		AM
222	Irrigation Systems, Hose Bibbs <u>L 411.13 Outside Hose Bibbs. Outside hose bibbs shall be allowed on irrigation pipe downstream of the backflow preventer. Hose bibbs supplying water from the irrigation system shall be indicated by posted signs marked with the words: "CAUTION: NONPOTABLE WATER. DO NOT DRINK." and the symbol in Figure 503.9.</u>			R
223	Irrigation Systems, Depth of Irrigation Pipe. New requirements for pipe depth under different applications.			AS
224	L 501.2 Insulation..... Building cavities shall be large enough to accommodate the combined diameter of the pipe, the insulation, and other objects in the cavity that the piping shall cross. Pipe supports shall be installed on the outside of the pipe insulation.			AS
225	L 502.7 Maximum Volume and Length of Hot Water. The maximum volume of water contained in a hot water distribution pipes branch shall be in accordance with Section L 502.7.1 or Section L 502.7.2. The water volume shall be calculated using Table L 502.7. The maximum length per volume of piping shall comply with Section L 502.7.2. L 502.7.1 Maximum Volume of Hot Water Without Recirculation or Heat Trace in a Branch. The maximum volume of water contained in hot water distribution pipe between the water heater and any fixture fitting shall not exceed 32 ounces (oz) (946 mL). Where a fixture fitting shutoff valve (supply stop) is installed ahead of the fixture fitting, the maximum volume of water is permitted to be calculated between the water heater and the fitting shutoff valve (supply stop). <u>The water volume per foot of piping shall be calculated using Table L 502.7.1. The maximum volume of water in a fixture branch between any source of hot water (water heaters, recirculation loops and electrically heat traced pipe shall be considered sources of hot water) and the fixture fitting shall be:</u> <u>(1) 24 oz. where a single branch serves a single fixture.</u> <u>(2) 40 oz. where a series branch incorporating one or more Flow-Through Design configurations that serves two or more fixtures.</u>		AS	R

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	<p><u>(3) 60 oz. where a ring branch incorporating two or more Flow-Through Design configurations that serves two or more fixtures.</u> Exceptions: 1. The maximum volume of a single branch or series branch between any source of hot water and a kitchen sink and dishwasher located on an island or a peninsula where the floor is a concrete slab shall not contain more than 40 oz. 2. The maximum volume of a single branch to a standalone tub shall not contain more than 80 oz. L 502.7.2 Maximum Volume of Hot Water with Recirculation or Heat Trace. The maximum volume of water contained in the branches between the recirculation loop or electrically heat traced pipe, and the fixture fitting shall not exceed 16 oz (473 mL). Where a fixture fitting shutoff valve (supply stop) is installed ahead of the fixture fitting, the maximum volume of water is permitted to be calculated between the recirculation loop or electrically, heat traced pipe and the fixture fitting shutoff valve (supply stop). Exception: Whirlpool bathtubs or bathtubs that are not equipped with a shower are exempted from the requirements of Section L 502.7. L 502.7.2 Maximum Length per Volume of Water in a Branch. For fixture branches in accordance with Section L 502.7.1, the maximum length of piping shall be calculated using Table L502.7.2(1) through Table L 502.7.2(4). Where a fixture fitting shut off valve (supply stop) is installed ahead of the fixture fitting, the maximum length is measured between the source of hot water and the fixture fitting shut off valve (supply stop).</p> <p>L 201.0 Definitions Flow-Through Design. A fitting or a fitting configuration with two primary inlet connections and one, or more outlet connections with the purpose to supply water to a fixture fitting.</p>			
226	<p>Pools - (2) Heated pools and inground permanently installed spas, and portable spas, shall be provided with a vapor retardant cover. Portable spa covers shall meet the requirements of APSP-14. shall be equipped with a vapor retardant pool cover on or at the water surface. Pools heated to more than 90°F (32°C) shall have a pool cover with a minimum insulation value of R-12. Exception: Where more than 70 percent of the energy for heating, computed over an operating season, is from site-recovered energy such as from a heat pump or solar energy source Pools that are deriving over 60 percent of the energy for heating from site-recovered energy or solar energy. [ASHRAE 90.1:7.4.5.2]</p>			R

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227	<u>L 507.0 Heat Recovery from Steam Boiler Blowdown.</u> <u>L 507.1 General. Where heat recovery can be used beneficially to heat boiler makeup water or for other purposes, boiler blowdown from steam boilers exceeding 15 psi and 3.4 million BTU's per hour (100 HP) shall be directed to a heat recovery system that reduces the temperature of the blowdown discharge to below 140°F without using tempering water.</u>			?
228	Add new Appendix N – Health and Safety Impact of Water Temperature on Legionella and Scald Risks		R	R
229 - 247	Revisions to Standard Tables 1701.1 and 1701.2 to update revision dates			AS