UPC-2018	UPC-2021
CHAPTER 2 DEFINITIONS	
	Dead Leg. A section of potable water pipe which contains water that has no flow or does not circulate.
	~~**Critical Care Area.** A room or space in which failure of equipment or a system is likely to cause major injury or death to patients or caregivers (Category 1). [NFPA 99:3.3.28]~~
	Commercial Modular System. A drinking water treatment unit system consisting of multiple components attached to a manifold, produced specifically for food service applications, and not intended for use in residential applications.

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	Expansion Tank. A vessel used to protect potable water systems from excessive pressure.
	209.0 210.0 - G H- Health Care Facility's Governing Body. The person or persons who have the overall legal responsibility for the operation of a health care facility. [NFPA 99: 3.3.62 3.3.72]
	214.0 209.0 - L G- **General Anesthesia and Levels of Sedation/Analgesia.** **Deep Sedation/Analgesia.** A drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained. [NFPA 99: 3.3.61.23.3.66.2]
	Low-Pressure Water Dispenser. A terminal fitting located downstream of a pressure reducing valve that dispenses drinking hot water above 71°C (160°F) or cold water or both at a pressure of 105 kPa (15 psi) or less.

UPC-2018	Medical Gas. A patient medical gas or medical support gas. (See also Patient Medical Gas and Medical Support Gas.) [NFPA 99: 3.3.93 3.3.99]
	Point-of-Entry, Water Treatment Unit. A device serving the water distribution system of a building for the purposes of altering, modifying, adding, or removing minerals, chemicals, contaminants, and suspended solids in the water.
	Point-of-Use, Water Treatment Unit. A device serving a single atmospheric outlet such as a faucet for the purposes of altering, modifying, adding, or removing any minerals, chemicals, contaminants, and suspended solids in water.
218.0 Patient Care Space. Revised.	

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CHAPTER 3 GENERAL REGULATIONS
301.2.1 Marking. Each length of pipe and each pipe fitting, trap, fixture, material, and device used in a plumbing system shall have cast, stamped, or indelibly marked on it <u>any markings required by the applicable referenced standards and listing agency, and</u> the manufacturer's mark or name, which shall readily identify the manufacturer to the end user of the product. Where required by the approved standard that applies, the product shall be marked with the weight and quality of the product. Materials and devices used or entering into the construction of plumbing and drainage systems, or parts

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thereof, shall be marked and identified in a manner satisfactory to the Authority Having Jurisdiction. Such markings shall be done by the manufacturer. Field markings shall not be acceptable. **Exception:** Marking shall not be required on nipples created from cutting and threading of approved pipe.	
	309.6 Dead Legs. Dead legs shall have a method of flushing.

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402.4 Wall-Hung Fixtures. Wall-hung fixtures shall be rigidly supported by metal supporting members so that no strain is transmitted to the connections. Floor-affixed supports for off the-floor plumbing fixtures for public use shall comply with ASME A112.6.1M. Framing-affixed supports for off-the-floor water closets with concealed tanks shall comply with ASME A112.6.2. Flush tanks and similar appurtenances shall be secured by approved non-corrosive screws or bolts.	
	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. (2) A Water Heater conforming to ASSE 1084.
403.3 Exposed Pipes and Surfaces. Add-ASTM C1822.	
404.0 Waste Fittings and Overflows	
404.1 Waste Fittings. New section.	
~~**404.1**~~ **404.2 General Overflows.** Renumbered.	

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	408.3 Individual Shower and Tub-Shower Combination Control Valves. Showers and tub-shower combinations shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection for the rated flow rate of the installed showerhead. These valves shall be installed at the point of use and comply with ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1. Handle position, stop or temperature limiting control shall be provided on 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.
407.6 Overflow. Where overflows are provided, they shall be installed in accordance with Section ~~404.1~~ 404.2.	**408.3.1 Gang Showers.** Where gang showers are sup-plied with a single temperature-controlled water supply pipe, it shall be controlled by a mixing valve that com-plies with ASSE 1069.
	408.3.2 Temperature Limiting. The maximum water temperature discharging from an individual showerhead shall be limited to 120°F (49°C) by one of the following methods: A shower or tub/shower combination valve conforming to ASSE 1016/ASME A112.1016/CSA B125.16 where either: The valve is field-adjusted to the required maximum temperature, or The handle position, stop, or temperature limiting control is set in accordance with the manufacturer's instructions to the required maximum temperature; For gang showers supplied by a single water supply pipe, a mixing valve that conforms to ASSE 1069 that is field-adjusted to the required maximum temperature; A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3; (4) A water heater conforming to ASSE 1084; A temperature actuated flow reduction device conforming to ASSE 1062.
409.3 Overflow. Where overflows are provided, they shall be installed in accordance with Section ~~404.1~~ 404.2.	

UPC-2018	UPC-2021
	408.3.2 *The maximum water temperature discharging from an individual showerhead shall be limited to 1200F (490C) by one of the following methods:* *•(1) A shower or tub/shower combination valve conforming to ASSE 1016/ASME A112.1016/CSA B125.16 where either:* *•(a) The valve is field adjusted to the required maximum temperature, or* *•(b) The handle position, stop, or temperature limiting control is set in accordance with the manufacturer's instructions to the required maximum temperature.* *•(2) For gang showers supplied by a single water supply pipe, a mixing valve that conforms to ASSE 1069 that is field-adjusted to the required maximum temperature.* *•(3) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B 125.70 or CSA B125.3.* *•(4) A water heater conforming to ASSE 1084.* *•(5) A temperature actuated flow reduction device conforming to ASSE 1062.*
	408.5 ~~The immediate adjoining space to showers without thresholds~~ *Where there is a shower without a threshold, the floor space within the same room* shall be considered a wet location and shall comply with the requirements of the building, residential, and electrical codes.

	409.4 •The maximum hot water temperature discharging from the bathtub and whirlpool bathtub filler shall be limited to 1200F (490C). ~~The water heater thermostat shall not be considered a control for meeting this provision.~~ *The maximum temperature shall be regulated by one of the following means:* *•(1) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.* *•(2) A water heater conforming to ASSE 1084.*
	410.3 •The maximum hot water temperature discharging from a bidet shall be limited to 1100F (430C) 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 the following means:* *•(1) A limiting device conforming to either ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.* *•(2) A water heater conforming to ASSE 1084.*
	412.1.2 (new sub-section) *Nonwater urinals with drain cleansing action shall comply with ASME A112.19.19 and shall be cleaned, maintained and installed in accordance with the manufacturer's installation instructions.*
	<u>416.2 Water Supply.</u> <u>Emergency eyewash and shower equipment shall not be limited in the water supply flow rates. Where hot and cold water is supplied to an emergency shower or eyewash station, the temperature of the water supply shall be controlled by a temperature actuated mixing valve complying with ASSE 1071. Where water is supplied directly to an emergency shower or eyewash station from a water heater, the water heater shall comply with ASSE 1085. The flow rate, discharge pattern, and temperature of flushing fluids shall be provided in accordance with ISEA Z358.1.</u>

UPC-2018	UPC-2021
	417.6 Low-Pressure Water Dispenser. Beverage faucets shall comply with ASME A112.18.1/CSA B125.1. Low-pressure water dispensers that dispense electrically heated or chilled water and have a reservoir vented to the atmosphere shall comply with ASSE 1023 and UL 399.
CHAPTER 5 WATER HEATERS	
	507.2 ~~In seismic design categories C, D, E, and F~~. Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a distance of not less than 4 inches (102mm) shall be maintained from the controls with the strapping.

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	508.2.1 Edge of Roof Clearance. Appliances shall be installed on a well-drained surface of the roof. At least 6 feet (1829 mm) of clearance shall be available between any part of the appliance, and the edge of a roof or similar hazard, or rigidly fixed rails, guards, parapets, or other building structures at least 42 inches (1067 mm) in height shall be provided on the exposed side. [NFPA 54:9.4.2.2]
	508.2.1.1 Guards and Rails. Guards or rails shall be required where the following exist: (1) The clearance between the appliance and a roof edge or open end of an equipment platform is less than 6 feet (3048 mm). (2) The open end of the equipment platform is located more than 30 inches (762 mm) above the roof, floor, or grade below. Where guards or rails are installed, they shall be constructed so as to prevent the passage of a 21-inch (533 mm) diameter ball, resist the imposed loading conditions, and shall extend not less than 30 inches (7625 mm) beyond each side of the equipment or appliance. Exception: Guards shall not be required where a permanent fall arrest anchorage connector system in accordance with ASSE Z359.1 is installed.
	508.3.1 Buildings more than 15 feet (4572 mm) in height shall have an inside means of access to the roof, unless other means acceptable to the AHJ are used. [NFPA 54:9.4.3.2] (NMAC 14.8.2.13 C. except those designated as R-3 occupancies.)

UPC-2018	UPC-2021
509.3.6 Above ceiling or Non-ducted Air Handling System. New section.	**509.4.1** Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. *The plastic pipe venting shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be listed and labeled in accordance with UL 1738.* [NFPA 54:12.5.2]
509.4.1 Plastic Piping. ~~Plastic piping used for venting appliances listed for use with such venting materials shall be approved.~~ Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instruction shall identify the specific plastic piping material. [NFPA 54:12.5.2]	
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<table>
<tr><th>UPC-2018</th><th>UPC-2021</th></tr>
<tr><td>CHAPTER 6 WATER SUPPLY AND DISTRIBUTION</td><td>611.1 Application. Drinking water treatment units shall comply with the applicable referenced standards in Table 611.1. NSF 42. or 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.
611.1.1 Alkaline Water treatment. Alkaline water treatment devices shall comply with IAPMO IGC 322.
611.1.2 Scale Reduction Devices. Scale reduction devices shall comply with IAPMO Z601.
TABLE 611.1 DRINKING WATER TREATMENT UNITS
<table>
<tr><th rowspan="2">APPLICATION</th><th colspan="2">RESIDENTIAL</th><th rowspan="2">COMMERCIAL</th></tr>
<tr><th>POINT-OF-USE</th><th>POINT OF ENTRY</th></tr>
<tr><td></td><td>Commercial and Food Service Water Treatment Equipment Utilizing Drinking Water</td><td>Water Conditioning, Water Treatment</td><td></td></tr>
<tr><td>Aesthetic Contaminant Reduction (Filters)</td><td>NSF 42</td><td>NSF 42</td><td>ASSE 1087
And
NSF 42*</td></tr>
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<tr><th>UPC-2018</th><th>UPC-2021</th></tr>
<tr><td>603.4.3 Access and Clearance. Access and clearance shall be provided for the required testing, maintenance, and repair. Access and clearance shall be in accordance with the manufacturer’s instructions, and not less than 12 inches (305 mm) between the lowest portion of the assembly and grade, floor, or platform. Installations elevated that exceed 5 feet (1524 mm) above the floor or grade shall be provided with a platform capable of supporting a tester or maintenance person.</td><td>
<table>
<tr><td>Health Related Contaminant Reduction (Filters)</td><td>NSF 53</td><td>NSF 53</td><td>ASSE 1087 and NSF 53*</td></tr>
<tr><td>Water Softener</td><td></td><td>NSF 44</td><td>ASSE 1087</td></tr>
<tr><td>Ultraviolet Water Treatment</td><td>NSF 55</td><td>NSF 55</td><td>ASSE 1087</td></tr>
<tr><td>Reverse Osmosis</td><td>NSF 58</td><td>NSF 61</td><td>ASSE 1087</td></tr>
<tr><td>Distillation</td><td>NSF 62</td><td>NSF 62</td><td>ASSE 1087</td></tr>
</table>
*Required for commercial modular Systems only
</td></tr>
<tr><td></td><td></td></tr>
<tr><td>604.10.1 Tracer Wire. Plastic materials for building supply piping outside underground shall have a blue insulated copper trace wire an electrically continuous corrosion-resistant blue insulated copper tracer wire, or other approved conductor installed adjacent to the piping. Access shall be provided to the tracer wire, or the tracer wire shall terminate aboveground at each end of the nonmetallic piping. The tracer wire size shall be not less than 18 AWG, and the insulation type shall be suitable for direct burial.</td><td></td></tr>
<tr><td></td><td></td></tr>
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</table>

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609.4 Testing. **Exception:** PEX, PP or PE-RT tube shall be permitted to be tested with air, where permitted by the manufacturer's instructions	
CHAPTER 7 SANITARY DRAINAGE	
701.2 Drainage Piping. Revise- (2) ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Table 701.2 and Chapter 14 “Firestop Protection.” Except for individual single-family dwelling units, materials exposed within ducts or	**Table 703.2 Maximum Unit loading and Maximum length of drainage and vent piping.** 3” horizontal drainage piping, not exceed 5 water closets or 5 – 6unit traps

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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.
CHAPTER 9 VENTS
903.1 Applicable Standards. Revise- (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.

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CHAPTER 11 STORM DRAINAGE
1101.4 Material Uses. Add- <u>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</u>.
NMAC 14.8.2.21 CHAPTER 11 STORM DRAINAGE: See this chapter of the UPC except as follows: 1101.6 Subsoil drains. See this section of the UPC except after the words “Subsoil drains shall be provided” in the first sentence add the following text: “**as required by the NMCBC, 14.7.2 NMAC**”. [14.8.2.21 NMAC - Rp, 14.8.2.21 NMAC, 05/15/2018; A, 3/10/2022]
<u>1106.0 Engineered Storm Drainage System.</u> <u>New section and subsections.</u>

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1208.4.1 Maximum Gas Demand. The volumetric flow rate of gas to be provided (in cubic feet per hour) shall be the sum of the maximum inputs of the appliances served. The volumetric flow rate of gas to be provided shall be adjusted for altitude where the installation is above 2000 feet (610 m). [NFPA 54: 5.4.2.1-5.4.2.2] ~~calculated using the manufacturer's input ratings of the appliance served, adjusted for altitude~~. Where the input rating is not indicated, the gas supplier, appliance manufacturer, or a qualified agency shall be contacted, or the rating from Table 1208.4.1 shall be used for estimating the volumetric flow rate of gas to be supplied. The total connected hourly load shall be used as the basis for piping sizing, assuming all the appliances are operating at full capacity simultaneously. **Exception:** Sizing shall be permitted to be based upon established load diversity factors. [NFPA 54:5.4.2.3]

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1215.6 Variable Gas Pressure. Where the supply gas pressure exceeds ~~139 inches~~ 5 psi (34.6 kPa) ~~of water column~~ for natural gas and ~~277 inches~~ 10 psi (69 kPa) ~~of water column~~ for undiluted propane or is less than 6 inches (1.5 kPa) of water column, or where diversity demand factors are used, the design, pipe, sizing, materials, location, and use of such systems first shall be approved by the Authority Having Jurisdiction. Piping systems designed for pressures exceeding the serving gas supplier's standard delivery pressure shall have prior verification from the gas supplier of the availability of the design pressure.

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CHAPTER 13 HEALTH CARE FACILITIES AND MEDICAL GAS AND VACUUM SYSTEMS
1302.1 Building System <u>Risk</u> Categories.
<u>1302.1.1 Risk Assessment.</u> <u>New section.</u>
<u>1302.1.2 Document Risk Assessment.</u> <u>New section.</u>
1312.1 General. New or replacement valves shall be permitted to be of any type as long as they meet the following conditions: Revise- (3) They are constructed of materials ~~approved~~ <u>suitable</u> for the service. Add- <u>(6) They permit in-line serviceability.</u> <u>(7) They are cleaned for oxygen service by the manufacturer if</u> <u>used for any positive pressure service. [NFPA 99:5.1.4.1.6]</u>

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1312.9.3 Main Line Valves. Main line valves shall be labeled in substance as follows: **MAIN LINE VALVE FOR THE (GAS/VACUUM NAME) SERVING (NAME OF BUILDING)** [NFPA 99:5.1.11.2.4]
1315.2.1 Category 2 Medical-Surgical Vacuum. Category 2 systems shall comply with Section 1315.0, except as follows: (1) Medical-surgical vacuum systems shall be permitted to be simplex. (2) The facility shall develop their emergency plan to deal with the loss of medical-surgical vacuum. [NFPA 99:5.2.3.6]
1315.2.2 Category 3 Medical-Surgical Vacuum. Category 3 medical-surgical vacuum systems if used, shall comply with Section 1315.2. [NFPA 99:5.3.3.9]

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1319.7.2.1 Category 3 Gas Powered Device Distribution Piping. The source valve shall be closed unless the source gas is being used for the test. [NFPA 99:5.3.12.2.9(2)]
1319.7.3.1 Category 3 Gas Powered Device Distribution Piping. The piping systems shall be subjected to a 24hour standing pressure testing using oil-free, dry nitrogen NF or the system gas. [NFPA 99:5.3.12.2.9(3)]
1319.7.5.1 Category 3 Gas Powered Device Distribution Piping. At the conclusion of the tests, there shall be no change in the test pressure greater than a gauge pressure of 5 psi (35 kPa). [NFPA 99:5.1.12.2.6.4, 5.3.12.2.9(5)]

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TABLE 1701.1 REFERENCED STANDARDS

STANDARD NUMBER	STANDARD TITLE	APPLICATION	REFERENCED SECTIONS
ASSE 1087-2018	Commercial and Food Service Water Treatment Equipment Utilizing Drinking Water	Water Conditioning, Water Treatment	Table 611.1
NSF 42-2017	Drinking Water Treatment Units – Aesthetic Effects	Appliances	~~611.1~~ Table 611.1
NSF 44-2017	Residential Cation Exchange Water Softeners	Appliances	~~611.1~~ Table 611.1
NSF 53-2016	Drinking Water Treatment	Appliances	~~611.1~~ Table 611.1

UPC-2018	NSF 55-2017	Ultraviolet Microbiological Water Treatment Systems	Appliances	~~611.1~~ TABLE 611.1
	NSF 58-2017	Reverse Osmosis Drinking Water Treatment Systems	Appliances	~~611.1~~ 611.2 Table 611.1
	NSF 61-2017	Drinking Water System Components – Health Effects	Miscellaneous	415.1, 417.1, 604.1, 604.9, 606.1, 607.2, 608.2, 608.3, Table 611.1
	NSF 62-2017	Drinking Water Distillation Systems	Appliances	

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APPENDIX L SUSTAINABLE PRACTICES
L 407.2 Approval. New section.
L 408.1.1 Condensate Drainage Recovery. New section.
L 413.2 Self-Service. New section.
L 413.3 Reverse Osmosis. New section.
L 413.4 Towel Ringers. New section.
L ~~603.3.3~~ 503.3.3 Insulation. Add- (3) The first 8 feet (2438 mm) of branch piping connecting to recirculated, heat-traced, or impedance heated piping.

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(4) The inlet piping between the storage tank and a heat trap in a nonrecirculating storage system. (5) Piping that is externally heated (such as heat trace or impedance heating). [ASHRAE 90.1:7.4.3]
TABLE L 503.3.2 PERFORMANCE REQUIREMENTS FOR WATER-HEATING EQUIPMENT MINIMUM EFFICIENCY REQUIREMENTS. Table revised.
L 503.4.2.1 Buildings with High-Capacity Service Water Heating Systems. Revise- (3) Individual gas water heaters with input capacity, not more than ~~1 000 000~~ 100 000 Btu/h (29.3 kW). [ASHRAE 90.1:7.5.3]
APPENDIX M PEAK WATER DEMAND CALCULATOR. New appendix.