CHANGES TO THE 2021 IPC

1. **Definitions, Addition adding a new definition for copper alloy**.

COPPER ALLOY. A metal alloy where the principle component is copper.

2. **Definitions, Modification of definitions for public or private**.

PUBLIC OR PUBLIC UTILIZATION. In the classifications of plumbing fixtures, "public" applies to fixtures with unrestricted exposure to walk-in traffic.

3. **Definitions, Modification of definitions for public or private**.

PRIVATE. In the classification of plumbing fixtures, "private" applies to fixtures that are not public.

4. **Definitions, Modification stating that bottled water unit is no longer defined by the code as a water dispenser.**

WATER DISPENSER. A plumbing fixture that is manually controlled by the user for the purpose of dispensing potable drinking water into a receptacle, such as a cup, glass or bottle. Suh fixture is connected to the potable water distribution system of the premises.

5. **Section 308.9, Modification stating that where hot water piping for a manifold system is in a bundle with cold water piping, the hot water piping is required to be insulated but not necessarily individually insulated.**

PARALLEL WATER DISTIBUTION SYSTEMS. Piping bundles for manifold systems shall be supported in accordance with Table 308.5. Support at changes in direction shall be in accordance with the manufacturer's instructions. Where hot water piping is bundled with cold water piping, hot water piping shall be insulated in accordance with section 607.5.

6. **Section 403.1.1, Modification stating that the minimum fixture quantities for multiple-user toilet facilities designed to serve all genders must be calculated 100 based on total occupant load.**

FIXTURE CALCULATIONS. Exceptions:

1. Remains the same.

2. Where multiple-user facilities are deigned to serve all genders, the minimum fixture count shall be calculated 100 percent, based on total occupant load. In such multiple-user facilities, each future type shall be in accordance with ICC A117.1 and each urinal that is provided shall be located in a stall.

3. Distribution of the sexes is not required where single-user water closets and bathing room fixtures are provided in accordance with Section 403.1.2.

7. **Section 403.1.2, Clarification stating that the numbers of plumbing fixtures in all single-user toilet rooms and bathing rooms count toward the total number for a building.**

SINGLE-USER TOILET AND BATHING ROOM FIXUTRES. The plumbing fixtures located in single-user toilet and bathing rooms, including family or assisted-use toilet and bathing rooms that are required by Section 1109.2.1 of the International building Code, shall contribute toward the total number of required plumbing fixtures for a building or tenant space. Single-user toilet and bathing rooms, and family or assisted-use toilet rooms and bathing rooms shall be identified as being available for use by all persons regardless of their sex. The total *number of fixtures shall be permitted to be based on the required number of separate facilities or based on the aggregate of any combination of single-user or separate facilities.*

8. **Section 403.2, Modification for designs for multiple-user facilities serving both sexes are possible.**

SEPARATE FACILITES. Where plumbing fixtures are required, separate facilities shall be provided for each sex. Exceptions:

1. through 4. Remain the same.

5. Separate facilities shall not be required to be designated by sex where single-user toilet rooms are provided in accordance with Section 403.1.2.

6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets is provide in accordance with Section 405.3.4. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

9. **Sections 403.3.1, Clarification stating that because accessibility is covered by the requirements of Section 404 and those requirements include specifics concerning accessible routes, there is no need to repeat the accessible route requirement in those sections**.

ACCESS. The route to the public toilet facilities required by Section 403.3 shall pass through kitchens, storage rooms or closets. Access to the required facilities shall be from within the building or from the exterior of the building. The public shall have access to the required toilet facilities at all times that the building is occupied.

10. **Section 403.5, Clarification stating that because accessibility is covered by the requirements of Section 404 and those requirements include specifics concerning accessible routes, there is no need to repeat the accessible route requirement in those sections**.

DRINKING FOUNTAIN LOCATION. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a distance of travel of 500 feet (152m) of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet (91m).

11. **Section 403.3.3, Modification stating that the location of toilet facilities in Group S occupancies can exceed the location and maximum distance limitations (500 feet) provided that the arrangement is approved**.

LOCATION OF TOILET FACILITIES IN OCUPANCIES OTHER THAN MALLS.

Exceptions:

1. Remains the same.

2. The location and maximum distances of travel to required public and employee facilities in Group S occupancies shall be permitted to exceed that required by this section, provided that the location and maximum distances of travel are approved.

12. **Section 403.6, Addition of new section stating that where a service sink is not located within a tenant space in a covered all, the travel distance to a service sink is limited**. *SERVICE SINK LOCATION. Service sinks shall not be required to be located in individual tenant spaces in a covered mall provided that service sinks are*

located within a distance of travel of 300 feet (91m) of the most remote location in the tenant space and not more than one story above or below the tenant space. Service sinks shall be located on an accessible route.

13. **Section 405.4.3, Modification stating that there is a new standard for water closet carriers**.

SECURING WALL-HUNG WATER CLOET BOWLS. Wall-hung water closet bowls shall be supported by a concealed metal carrier that is attached to the building structural members so that the strain is not transmitted to the fixture connector or any other part of the plumbing system. The carrier shall conform to ASME A112.6.1M or ASME A112.6.2.

14. **Section 407.2, Modification stating that a bathtub does not require an overflow outlet**.

BATHTUB WASTE OUTLETS AND OVERFLOWS. Bathtubs shall be equipped with a waste outlet that is not less than 1 ½ inches (38mm) in diameter. The waste outlet shall be equipped with a watertight stopper. Where an overflow is installed, the overflow shall be not less than 1 ½ inches (38mm) in diameter.

15. **Section 410.3.2, Addition stating that fifty percent of the required number of drinking fountains must be for standing persons and the other 50 percent for person who use wheelchairs.**

MORE THAN THE MINIMUM NUMBER. Where more than the minimum number of drinking fountains specified in Section 410.3.1 is provided, 50 percent of the total number of drinking fountains provided shall comply with the requirements for person who use a wheelchair and 50 percent for the total number of drinking fountains provided shall comply with the requirements for standing persons. Exceptions:

> *1. Where 50 percent of the drinking fountains yields a fraction, 50 percent shall be permitted to be rounded up or down, provided that the total number of drinking fountains complying with this section equals 100 percent of the drinking fountains.*
>
> *2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762mm) minimum above the floor.*

16. **410.4, Clarification stating that at least three required drinking fountains must be installed before 50 percent of the additional required drinking fountains can be substituted with water dispensers**.

SUBSTITUTION. Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies where three or more drinking fountains are required, water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

17. **411.3, Modification stating that a new type of water heater is available for emergency showers and eyewash stations that does not require a temperature-actuated mixing valve**.

WATER SUPPLY. Where hot and cold water is supplied to an emergency shower or eyewash station, the temperature of the water supply shall only 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.

18. **412.3, Modification stating that lower flow shower head need to be compatible with the shower control (mixing valve)**.

INDIVIDUAL SHOWER VALVES. Individual shower and tub-shower combination valves shall be balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valves that conform to the requirements of ASSE 1016/ASME A112.1016/CSA B 125.16 or ASME A112.8.1/CSA B125.1. Such valves shall be installed at the point of use. Shower control valves shall be rated for the flow rate of the installed shower head. Shower and tub-shower combination valves required by this section shall be equipped with a means to limit the maximum setting of the al veto 120 F (49 C), which shall be field adjusted in accordance with the manufacturer's instructions to provide water at a temperature not to exceed 120 F (49 C). In-line thermostatic valves shall not be utilized for compliance with this section.

19. **412.4, Modification stating that lower flow shower head need to be compatible with the shower control (mixing valve)**.

MULTIPLE GANG SHOWERS. Multiple (gang) showers supplied with a single, tempered water supply pipe shall have the water supply for such showers controlled by an approved automatic temperature control mixing valve that conforms to ASSE 1069 or CSA B125.3, or each shower head shall be individually controlled by a balances-pressure, thermostatic or combination balanced-pressure/thermostatic valve that conforms to ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B 125.1 and is installed at the point of use. Where a showerhead is individually controlled, shower control valves shall be rated for the flow rate of the installed shower head. Such valves shall be equipped with a means to limit the maximum setting of the valve to 120 F (49 C), which shall be field adjusted in accordance with the manufacturer's instructions to provide water a t a temperature not exceed 120 F (49 C). Access shall be provided to an ASSE 1069 or CSA B125.3 valve.

20. **412.5, Modification stating that new types of water heaters and new design for tub faucets are additional methods that can be used to control water temperature for bathtubs**.

BATHTUB AND WHIRLPOOL BATHTUB VALVES. Bathtubs and whirlpool bathtub valves shall have or b supplied by a water-temperature-limiting device that conforms to ASSE 1070/ASME A112.1070/CSA B125.70 or by a water heater complying with (ASSE 1082) or (ASSE 1084), except where such valves are combination tub/shower valves in accordance with Section 412.3. The water-temperature-limiting device required by this section shall be equipped with a means to limit the maximum setting of the device to 120 F (49 C), and, where adjustable, shall be field adjusted in accordance with the manufacturer's instructions to provide hot water at a temperature not to exceed 120 F (49 C). Access shall be provided to water-temperature-limiting devices that conform to ASSE 1070/ASME A112.1070/CSA B125.70.

> *Exception: Access shall not be required for nonadjustable water-temperature-limiting devices that conform to ASSE 1070/ASME A112.1070/CSA B125.70 and are integral with a fixture fitting, provided that the fixture fitting itself can be accessed for replacement.*

21. **412.10, Modification stating that two additional methods can be used to limit the water temperature discharged from a head shampoo sink**.

HEAD SHAMPOO SINKS FAUCETS. Head shampoo sink faucets shall be supplied with hot water that is limited to not more than 120 F (49 C). Each faucet shall have integral check valves to prevent crossover flow between the hot and cold water supply connections. The means for regulating the maximum temperature shall be one of the following:

1. *A limiting device conforming to ASSE 1070/ASME A112.1070/CSA B125.70.*
2. *A water heater conforming to ASSE 1082.*

3. A temperature-actuated, flow-reduction device conforming to ASSE 1062.

22**. 419.5, Modification stating that a valve conforming to CSA B125.3 is no longer acceptable as a water-temperature limiting device for public hand-washing lavatories**.

TEMPERED WATER FOR PUBLIC HAND-WASHING FACILITES. Tempered water shall be delivered from lavatories and group wash fixtures located in public toilet facilities provided for customers patrons and visitors. Tempered water shall be delivered through an approved water-temperature limiting device that conforms to ASSE 1070/ASME A112.1070/CSA B125.70.

23. **421.3.1, Addition stating that shower drains, including linear shower drains, are required to comply with the referenced standards**.

WASTE FITTINGS. Waste fittings shall conform to ASME A112.18.2/CSA B125.2.

24. **501.2, Clarification stating that the title of Standard ASSE 1017 is temperature-actuated mixing valve. Therefore, the code language is changed to align with the title of the standard**.

WATER HEATER AS SPACE HEATER. Where a combination potable water heating system an space heating system requires water for space heating at temperatures greater than 140 F (60 C), a temperature-actuated mixing valve complying with ASSE 1017 shall be provided to limit the water supplied to potable hot water distribution system to a temperature of 140 F (60 C) or less. The potability of the water shall be maintained throughout the system. Requirements for combination potable water heating and space heating systems shall be in accordance with the International Mechanical Code.

25. **602.3.5, Modification stating that pumps used to supply drinking water must conform to NSF 61**.

PUMPS. Pumps shall be rated for the transport of potable water. Pumps in an individual water supply system shall be constructed and installed so as to prevent contamination from entering a potable water supply through the pump units. Pumps intended to supply drinking water shall conform to NSF 61. Pumps shall be sealed to the well casing or covered with a water-tight seal. Pumps shall be designed to maintain a prime and installed such that ready access is provided to pump parts of the entire assembly for repairs.

26. **605.12.3 and 605.13.6, Modification stating that solder and flux used in making joints in pipe and tubing for drinking water systems must conform to NSF 61**.

SOLDER JOINTS. Solder joints shall be made in accordance with ASTM B828. Cut tube ends shall be reamed to the full inside diameter of the tube end. Joint surfaces shall be cleaned. A flux conforming to ASTM B813 shall be applied. The joint shall be soldered with a solder conforming to ASTM 32. The joining of water supply piping shall be made with lead-free solder and fluxes. "Lead-free" shall mean a chemical composition equal to or less than 0.2-percent lead. Solder and flux joining pipe for fitting intend to supply drinking water shall conform to NSF 61.

27. **606.1, Modification stating that multiple tenant buildings must have a main water shutoff valve for each tenant space**.

LOCATION OF FULL-OPEN VALVES. Full-open valves shall be installed in the following locations:

1. On the building water service pipe from the public water supply near the curb.

2. On the water distribution supply pipe at the entrance into the structure.

2.1. In multiple-tenant buildings, where a common water supply piping system is installed to supply other than one and two family dwellings, a main shutoff valve shall be provided for each tenant.

28. **607.1.1 and 607.1.2, Modification stating that new designs of water heaters are available where the temperature control of the water heater can provide reliable**.

TEMPERATURE LIMITING MEANS. A thermostat control for a water heater shall not only serve as the temperature limiting means for the purposes of complying with the requirements of this code for maximum allowable hot or tempered water delivery temperature at fixtures where the water heater complies with ASSE 1082 or ASSE 1085.

29. **608.15.2.1, Modification stating that where backflow preventers can relieve indoors, the relief discharge must be directed to an adequately sized waste receptor**.

RELEIF PORT PIPING. The termination of the piping from the relief port or air gap fitting of a backflow preventer shall discharge to an approved indirect waste receptor or the outdoors where it will not cause damage or create a nuisance. The indirect waste receptor and drainage piing shall be sized to drain the maximum discharge flow rate from the relief port as published by the backflow preventer manufacturer.

30**. 608.17.2, Modification stating that the code adds a recognized standard, ASSE 1081, for combination pressure regulator/backflow preventer product for boilers**.

CONNECTIONS TO BOILERS. The potable water supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012, ASSE 1081, or CSA B64.3. Where condition chemicals are introduced into the system, the potable water connection shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or AWWA C511.

31. **609.2, Modification stating that buildings classified as Group I-2, Condition 2 facilities require two water service pipes. The previous requirement for hospitals to have two water service pipes was vague, resulting in enforcement difficulties**.

WATER SERVICE FOR GROUP I-2, CONDITION 2 FACILITIES. Group I-2, Condition 2 facilities shall have not fewer than two water service pipes sized such that with the loss of the largest service pipe, the remaining service pipes will meet the water demand for the entire facility. Each water service shall have a shutoff valve in the building and a shutoff valve at the utility-provided point of connection to the water main or other source of potable water.

32. **609.2.1, Addition stating that the addition of tracer wire on buried hospital water service piping allows for easier locating to avoid piping damage that would disrupt water service**.

TRACER WIRE FOR NONMETALLIC PIPING. An insulated tracer wire listed for the purpose or other approved conductor shall be installed adjacent to underground nonmetallic piing serving as a water service for a hospital. Access shall be provided to the tracer wire or the tracer wire shall terminate above ground at each end of the nonmetallic piping. The tracer wire size shall be not less than 18 AWG and the wire insulation type shall be suitable for direct burial.

33. **702.3, Modification stating that a standard is added to the building sewer pipe table for a composite wall ABS pipe**.

A standard is added to the building sewer pipe table for a composite wall ABS pipe.

34. **705.2.4, Addition stating that push-fit fittings are a new type of DWV fitting for ABS and PVC piping that, when used, will reduce installation time**.

PUSH-FIT JOINTS. Push-fit DWV fittings shall be listed and labeled to ASME A112.4.4 and shall be installed in accordance with the manufacturer's instructions.

35. **705.10.4, Addition stating that push-fit fittings are a new type of DWV fitting for ABS and PVC piping that, when used, will reduce installation time**.

PUSH-FIT JOINTS. Push-fit joints shall conform to ASME A112.4.4 and shall be installed in accordance with the manufacturer's instructions.

36. **708.1.6, Addition stating that removable traps and removable fixtures with integral traps are acceptable as equivalent to cleanouts**.

CLEANOUT EQUIVALENT. A fixture trap or fixture with integral tarp, removable without altering concealed piping shall be acceptable as a cleanout.

37. **717 and 718, Addition stating that the code recognizes two methods for restoring building sewer and building drain piping**.

RELINING BUILDING SEWERS AND BUILDING DRAINS.

> *717.1 GENERAL. This section shall govern the relining of existing building sewers and building drainage piping.*
>
> *717.2 APPLICIBILITY. The relining o existing building sewers and building drainage piping shall be limited to gravity drainage piping 4 inches (102 mm) in diameter and larger. The relined piping shall be of the same nominal size as the existing piping.*
>
> *717.3 PRE-INSTALLATION REQUIREMENTS. Prior to the commencement of the relining installation, the existing piping sections to be relined shall be descaled and cleaned. After the cleaning process has occurred and water has been flushed through the system, the piping shall be inspected internally by a recorded video camera survey.*
>
> *717.3.1 PRE-INSTALLTION RECORDED VIDEO CAMERA SURVEY. The video survey shall include verification of the project address location. The video shall include notations of the cleanout and fitting locations, and the approximate depth of the existing piping. The video shall also include notations of the length of piping at intervals not greater than 25 feet (7620 mm).*
>
> *717.4 PERMITTING. Prior to the issuance, the code official shall review and evaluate the preinstallation recorded video camera survey to determine if the piing system is able to be relined in accordance with the proposed lining system manufacturers installation requirements and applicable referenced standards.*
>
> *717.5 PROHIBITED APPLICATIONS. Where review of the preinstallation recorded video camera survey reveals that piping systems are not installed correctly or defects exist, relining shall not be permitted. The defective portions of piping shall be exposed and repaired with pipe and fittings in accordance with this code. Defects shall include, but are not limited to, backgrade or insufficient slope, complete pipe wall deterioration or complete separations such as from tree root invasion or improper support.*

717.6 RELINING MATERIALS. The relining materials shall be manufactured in compliance with applicable standards and certified as required in Section 303. Fold-and-form pipe reline materials shall be manufactured in compliance with ASTM F1504 or ASTM F1871.

717.7 INSTALLATION. The installation of relining materials shall be performed in accordance with the manufacturer's installation instructions, applicable referenced standards and this code.

717.7.1 MATERIAL DATE REPORT. The installer shall record the data as required by the relining material manufacturer and applicable standards. The recorded date shall include but is not limited to the location of the project, relining material type, amount of product installed and conditions of the installation. A copy of the date report shall be provided to the code official prior to final approval.

717.8 POST-INSTALLATION RECORDED VIDEO CAMERA SURVEY. The completed relined piping system shall be inspected internally by a recorded video camera survey after the system has been flushed and flow-tested with water. The video survey shall be submitted to the code official prior to finalization of the permit. The video survey shall be reviewed and evaluated to provide verification that no defects exist. Any defects identified shall be repaired and replaced in accordance with this code.

717.9 CERTIFICIATION. A certification shall be provided in writing to the code official, from the permit holder, that the relining materials have been installed in accordance with the manufacture's installation instructions, the applicable standards and this code.

717.10 APPROVAL. Upon verification of compliance with the requirements of sections 717.1 through 717.9, the code official shall approve the installation.

38. **718, Addition**.

REHABILITATION OF BUILDING SEWERS AND BUILDING DRAINS.

718.1 CURE-IN-PLACE. Sectional cure-in-place rehabilitation of building sewer piping and sewer service lateral piping shall be in accordance with ASTM F2599. Main and lateral cure-in-place rehabilitation of building sewer and service lateral pipe and their connections to the main sewer pipe shall be in accordance with ASTM F2561. Hydrophilic rings or gaskets in cure-in-place rehabilitation of building sewer piping and sewer service laterals shall be in accordance with ASTM F3240 to ensure water tightness and elimination of ground water penetration.

39. **903.1.3, Addition stating that new requirements for protected outdoor roof vent terminals accommodate solar panel and architectural roof feature installations**.

PROTECTED VENT TERMINAL. Where an open vent pipe terminates above a sloped roof and is covered by either a roof-mounted panel (such as a solar collector or photovoltaic panel mounted over the vent opening) or a roof element (such as an architectural feature or decorative shroud), the vent pipe shall terminate not less than 2 inches (51 mm) above the roof surface. Such roof elements shall be designed to prevent the adverse effects of snow accumulation and wind on the function of the vent. The placement of a panel over a vent pipe and the design of a roof element covering the vent pipe shall provide for an open area for the vent pipe to the outdoors that is not less than the area of the pipe, as calculated from the inside diameter of the pipe. Such vent terminals shall be protected by a method that prevents birds and rodents from entering or blocking the vent.

40. **915.1, Modification stating that the prohibition of a food waste disposer discharging to a combination waste and vent system is removed**.

TYPE OF FIXTURES. A combination waste and vent system shall not serve fixtures other than floor drains, sinks, lavatories and drinking fountains. Combination waste and vent systems shall not receive the discharge from a clinical sink.

41. **1002.1, Modification stating that a one, two or three-compartment pots and pans sink without a trap can be directly connected to a hydromechanical grease interceptor provided that the grease interceptor is in close proximity and connects to a drainage branch that has an emergency floor drain connected immediately downstream of the interceptor**.

FIXTURE TRAPS.

> *Exceptions:*
>
> > *1. and 2. Remain unchanged.*
> >
> > *3. This exception has been entirely eliminated.*
> >
> > *4. Becomes number 3.*
> >
> > *4. Where hydromechanical grease interceptor serves a food utensil, dishes, pots-and-pans sink, in accordance with the manufacture's installation instructions. The branch drain serving the interceptor shall be provided with an emergency floor drain downstream of the interceptor connection, and the branch shall serve only the emergency floor drain and the interceptor. Where the interceptor serves a combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm) and the developed length of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm) the food utensil dishes, pots and pans sink shall be required to connect directly with the interceptor.*

42. **1002.4.1.5, Addition stating that waste from lavatories and hand sinks can be directed to floor drains, trench drains or floor sinks where such floor fixtures require a trap primer**.

FIXTURE DRAIN CONNECTION FOR TRAP PRIMING. A fixture drain from a lavatory or hand sink shall serve as a method of providing trap seal protection for and emergency floor drain, a trench drain, or a floor sink where such fixtures are located in the same room. A fixture drain from a drinking fountain shall serve as a method of provided trap seal protection for an emergency floor drain, trench drain, or a floor sink where such fixtures are in the same room or in a room adjacent to the room having the drinking fountain. The fixture drain shall no be routed on or above the surface of the floor and shall connect to the floor drain, trench drain, or floor sink at a point that is below the flood level rim and above the inlet to the trap of the receiving fixture.

43. **1102.6, Modification stating that flow testing and rating of roof drains is required to be in accordance with the referenced standards**.

ROOF DRAINS. Roof drains shall conform to ASME A112.3.1 or ASME A112.6.4. Roof drains, other than siphonic roof drains, shall be tested and rated in accordance with ASME A112.6.4 or ASPE/IAPMO Z1034.

44. **1106.2.1, Addition stating that although the conversion from inches-per-hour of rainfall to gallons per minute (gpm) is not complicated, including the conversion information in the code is helpful**.

RAINFALL RATE CONVERSION METHOD. The rainfall rate falling on a roof surface shall be converted to a gallon per minute (L/m) flow rate in accordance with Equation 11-1.

GPM = R X A X 0.0104

WHERE: R = Rainfall intensity in inches (mm) per hour.

A = Roof area in square feet (m2).

45. **1202.1, Modification stating that NFPA 99 covers the installation, testing and labels for nonflammable medical gas**.

NONFLAMMABLE MEDICAL GASES. Nonflammable medical gas systems, inhalation anesthetic systems and vacuum piping systems shall be installed, tested and labeled in accordance with NFPA 99.

Exceptions:

1. *This section shall not apply to portable systems or cylinder storage.*
2. *Vacuum system exhaust terminations shall comply with the International mechanical Code.*

46. **1301.1, Modification stating that standard CSA B805/ICC 805 is added to the code to serve as an alternative method for providing a nonpotable water source**.

GENERAL. The provisions of Chapter 13 shall govern the materials, design, construction and installation of systems for the collection, storage, treatment and distribution of nonpotable water. For nonpotable rainwater systems, the provisions of CSA B805/ICC 805 shall be an alternative for regulating the materials, design, construction and installation of systems for rainwater collection, storage, treatment and distribution of nonpotable water. The use and application of nonpotable water shall comply with laws, rules and ordinances applicable in the jurisdiction.