

Uniform Building Code Commission Fuel Gas, Mechanical and Plumbing Technical Committee (FGMP) Presentation

Recommendations for modifications to the 2024 Editions of the International Fuel Gas Code®, International Mechanical Code®, and International Plumbing Code®

Presented by: Larry Durham (Chairman of the Committee)

Date: August 20, 2024



OKLAHOMA

Committee Members

Commission Liaisons:

Daniel Favata (Royal House Partners, LLC – Heating and Cooling Contractor)

Wayne Allen (Allen Consulting – Mechanical Engineer)

Zach Tippett (Plumbing Solutions Inc. – Plumbing Contractor)

Committee Volunteers:

Chris Brierly (Roto Rooter – Plumbing Contractor)

Larry Durham (City of Norman – Mechanical Code Official)

Danny Hancock (Platinum Mechanical – Alternate Plumbing Contractor)

Kevin Huddleston (LP Gas Administration – Code Official)

John Melson (Department of Labor – Code Official)

Madison Schultz (ADG Blatt - Engineer)

Christina Selby (City of Duncan – Alternate Code Official)

Darrel Stiver (City of Edmond - Code Official)

John Taylor (City of Yukon – Fire Code Official)

JW Williams (Canadian Valley Tech Center – Mechanical Contractor)



General Commentary:

The FGMP Technical Committee conducted a thorough, formal review of the 2021 and 2024 editions of the International Fuel Gas Code®, International Mechanical Code®, and International Plumbing Code®

Code Change Proposal Summary:

- 53 Code change proposal forms were received
- 53 Code change proposal forms were reviewed
 - 1 Code change proposal form was revised and resubmitted
 - 1 Code change proposal form was withdrawn by the submitter
- 31 Code change proposal forms were approved as submitted
 - 5 Code change proposal forms were approved as amended
- 16 Code change proposal forms were denied



2024 Code Chapter Summary

International Fuel Gas Code® (IFGC®)

Chapters 1, 2, 5, 6, 7 and 8 were approved as written. Chapters 3 & 4 were approved as amended

International Mechanical Code® (IMC®)

Chapters 1, 2, 4, 7, 8, 9, 10, 12, 13, 14, & 15 were approved as written. Chapters 3, 5, 6, & 11 were approved as amended.

International Plumbing Code® (IPC®)

Chapters 1, 5, 8, 12, and 14 were approved as written. Chapters 2, 3, 4, 6, 7, 9, 10 11, 13, & 15 were approved as amended.



2018 Rule Amendments Recommended For Deletion

In the 2018 adoptions, errata corrections published by ICC were included in the agency rules. The FGMP committee recommends the deletion of the following modifications as the errata has been corrected in the 2024 code and the rules are no longer necessary. These items are not shown in the presentation.

INTERNATIONAL FUEL GAS CODE®:

No existing rules for errata that were recommended for deletion by the FGMP committee.

INTERNATIONAL MECHANICAL CODE®:

748:20-14-13 (1) through (6); and 748:20-14-19

INTERNATIONAL PLUMBING CODE®:

748:20-16-9 (3); 748:20-16-11 (2), (3), and (5); 748:20-16-13; 748:20-16-14 (2); 748:20-16-16 (2); and 748:20-16-20 (1) and (9)



Correlating Changes Between Codes

Five (5) of the code change proposals were correlated to provide the same language to applicable sections of more than one code. These changes are combined and listed in the next section of this presentation.



Proposed Code Change:

FGMP-2: IFGC Rule 748:20-12-8 (1); and IMC Rule 748:20-14-8 (7)

IFGC Section 306.5 / IMC Section 306.5 Equipment and appliances on roofs or elevated structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access such equipment or appliances, an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) in height or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

- (1) The side railing shall extend above the parapet or roof edge not less than ~~42~~ 30 inches (~~1067~~ 762 mm).
- (2) Ladders shall have rung spacing ~~not less than 10 inches (254 mm)~~ and not to exceed 14 inches (356 mm) on center. The upper-most rung shall be not more than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
- (3) Ladders shall have a toe spacing not less than ~~7 inches (178 mm)~~ 6 inches (152 mm) and ~~not more than 12 inches (305 mm)~~ deep
- (4) There shall be not less than ~~16 (406 mm)~~ 18 (457 mm) inches between rails.
- (5) Rungs shall have a diameter not less than 0.75-inch (19 mm) and be capable of withstanding a 300-pound (136.1 kg) load.
- (6) Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488.2 kg divided by meters squared). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.
- (7) Climbing clearance. The distance from the centerline of rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs, except where cages or wells are installed.



(8) Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.

(9) Ladders shall be protected against corrosion by approved means.

(10) Access to ladders shall be provided at all times.

(11) Top landing required. The ladders shall be provided with a clear and unobstructed landing on the exit side of the roof hatch having a minimum of 30 inches (752 mm) deep and be of the same width as the hatch.

(B) Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms. **Exceptions:**

(i) This section shall not apply to Group R-3 occupancies.

(ii) This section shall not apply to appliance replacement.

Summary of Change:

The change was originally made during the adoption of the 2015 code. The committee at that time felt Section 102.4 gave the code official the ability to approve reinstallation if it did not create a hazardous condition. They noted it was not cost effective to install permanent ladders on existing buildings that were previously approved.

Committee Commentary:

The committee reviewed the history of the change, different types of ladders and whether a ladder was acceptable; intent on grandfathering in requirements; the possibility of extending the height of the ladder; and the minimum level associated with those structures.

Committee Action Taken:

Unanimous vote to approve FGMP-2 as amended to delete the part of the change in Item 6 which deleted the language “18 inches (457 mm) and not less than” (10/12/2023)



Proposed Code Change:

FGMP-3; IFGC Rules 748:20-12-8 (2), (3), (4), & (5)/IMC Rules 748:20-14-8 (2), (3), (4), & (5)

IFGC [M] 306.6/IMC [BE] 304.11 Guards. Guards shall be provided where various components that require service and roof hatch openings are located ~~within 10 feet (3048 mm) of a on a roof edge or open side of walking surface and such edge or open side is located more then 30 inches (762 mm) above the floor, roof, or grade below~~ or elevated structure and have a condition as set fourth in Sections 306.6.1 through 306.6.3. The top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the International Building Code®. Guards shall be provided at new components when added or replaced on existing roof or elevated structure and have a condition as set forth in Sections 306.6.1 through 306.6.3. Exception: When approved by the authority having jurisdiction, guards are not required where permanent fall arrest-restraint anchorage connector devices that comply with ANSI/ASSE Z 359.1 are affixed for use during the entire roof covering lifetime of the roof covering. The devices shall be reevaluated for possible replacement when the entire roof covering is replaced. The devices shall be placed not more than 10 feet (3048 mm) on center along hip and ridge lines and placed not less than 10 feet (3048 mm) from roof edges and the open sides of walking surfaces.

IFGC 306.6.1/IMC 304.11.1 Roof edge. Guards complying with 306.1 shall be provided when components are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface or elevated structure and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of the component that requires service.

IFGC 306.6.2/IMC 304.11.2 Skylights. Guards complying with Section 306.6 shall be provided when a skylight is within 10 feet (3048 mm) of the component that requires service. The guard shall extend 30 inches (762 mm) beyond the edge of the skylight. Exceptions:

(A) Guards are not required when the skylight is located at least 42 inches (1067 mm) above the highest point of the walking surface adjacent to the skylight or component.



(B) Guards are not required if some other provision for skylight fall-thru protection is provided and approved by the authority having jurisdiction.

IFGC 306.6.3/ IMC 304.11.3 Roof hatch. Guards complying with Section 306.6 shall be provided when a roof hatch is within 10 feet (3048 mm) of the component that requires service. The guard shall extend 30 inches (762 mm) beyond the edge of the roof hatch. If the component is within 10 feet (3048 mm) of the ladder access side of the roof hatch, the guard shall incorporate a self-closing, self-latching gate. The gate shall have a top edge of not less than 42 inches (1067 mm) above the elevated surface adjacent to the gate and shall not allow the passage of a 21-inch (533 mm) sphere. If a roof hatch exists within 10 feet of a roof edge that is located more than 30 inches (762 mm) above the floor, roof or grade below and a new component that requires service on that existing roof or elevated structure, then a guard complying with Section 306.6 shall be added between the existing roof hatch and the roof edge.

Summary of Change:

This change was made during the 2015 adoption and was created by an ad-hoc committee consisting of members of both the FGMP and BEBF committees at the time. The changes clarify the circumstance under which guards are provided and the required approval from the AHJ in the exception for the first section. The same language is in the IBC rules in 748:20-2-15 (7), (8), (9), (10) and (11).

Committee Commentary:

At the October 12, 2023, meeting, the committee reviewed the history of the change and the other codes that included the added language. At the end of the discussion the form was tabled for further review.



Committee Commentary Continued:

At the November 9, 2023, meeting the committee discussed the history of the change. They discussed that the BEBF committee had a change related to the duplicate language in the IBC and if they proposed any change to the language the FGMP committee would need to review it and vice versa. There was further discussion on the exception language in the code; costs associated with the change and examples seen in the field related to Guards. The committee addressed concern expressed that the fall restraint requirements should be in the IBC and not the IFGC and IMC; and that the change was the same in all 3 codes.

Committee Action Taken:

Unanimous vote to approve FGMP-3 (11/09/2023)



Proposed Code Change:

FGMP-48 R1 – addressing IFGC Section 307.2, IMC Section 307.1. and IPC Section 314.1 Fuel-burning appliances

IFGC 307.2 Fuel-burning appliances. Liquid combustion byproducts of condensing appliances shall be collected and discharged to an approved plumbing fixture or disposal area in accordance with the manufacturer's instructions. Condensate piping shall be of approved corrosion-resistant material and shall not be smaller than the drain connection on the appliance. Such piping shall maintain a minimum slope in the direction of discharge of not less than 1/8-unit vertical in 12 units horizontal (1-percent slope). The termination of concealed condensate piping shall be marked to indicate whether the piping is connected to the primary drain or to the secondary drain. An acid neutralizer shall be installed before discharge of liquid combustion byproducts.

IMC 307.1 / IPC 314.1 Fuel-burning appliances. Liquid combustion byproducts of condensing appliances shall be collected and discharged to an approved plumbing fixture or disposal area in accordance with the manufacturer's instructions. Condensate piping shall be of approved corrosion-resistant material and shall not be smaller than the drain connection on the appliance. Such piping shall maintain a minimum slope in the direction of discharge of not less than 1/8-unit vertical in 12 units horizontal (1-percent slope). An acid neutralizer shall be installed before discharge of liquid combustion byproducts.

Summary of Change:

The submitter noted liquid combustion byproducts were acidic with a PH level of 3 and that the acidic byproduct could damage plumbing and could be considered as a prohibited discharge by the clean water act. They further noted a 90% efficient furnace could produce up to 5 gallons of liquid byproducts a day was not a large amount, but in the future all combustion heaters are to be 90% efficient which will increase the overall amount of discharge into the environment.



Committee Commentary:

At the February 8, 2024, meeting the committee reviewed FGMP-48 and discussed that while there was not a lot of 90% efficient fuel-burning appliances in use, that was expected to change. At the end of the discussion the form was tabled for revision.

At the April 11, 2024, meeting the committee discussed a revised version of the form that addressed the updated numbering in the 2024 codes. The discussed research related to fuel-burning appliances that had a 90 percent efficiency rating and the amount of acid those devices could produce each day. They discussed that the devices were not necessarily used all day, all year, how that could affect the runoff to a city's sanitary sewer system, damage to water treatment facilities and lift pumps that may not be rated for that level of ph. They discussed the differences in the language in the three codes pertaining to the sections referenced, manufacturer's installation instructions, how long an acid neutralizer worked and maintenance for it and that the change would only apply to commercial usage.

Committee Action Taken:

Unanimous vote to approve FGMP-48 R1 as written (4/11/2024)



Proposed Code Change:

FGMP-4; IFGC Rule 748:20-12-8 (6), IMC Rule 748:20-14-8 (8); and IPC Rule 748:20-16-8 (8) and form FGMP-49 addressing the same sections

FGMP 4:

IFGC 307.2.1 Condensate drains. Where condensing appliances are in locations subject to freezing conditions, the condensate drain line shall be protected from freezing in an approved manner and in accordance with manufacturer's installation instructions.

IMC 307.2.1 / IPC 314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope). Condensate drains shall be allowed to terminate to an approved pit or French drain consisting of a minimum of 24 inches by 24 inches by 24 inches (610 mm by 610 mm by 610 mm), or equivalent; of 1 inch (25 mm) washed rock. Such pits or French drains shall be located 30 inches (762 mm) minimum from outer edge of foundation to nearest edge of pit or French drain. Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance.

FGMP-49

IFGC 307.2.1 Condensate drains. Where condensing appliances are in locations subject to freezing conditions, the condensate drain line shall be protected from freezing in an approved manner and in accordance with manufacturer's installation instructions. The condensate drain termination should be below ground within 1 inch of fill gravel. Drain should be protected from freezing where exits the building to 12 inches below ground.

IMC 307.2.1 / IPC 314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope). Condensate drains shall be allowed to terminate to an approved pit or French drain consisting of a minimum of 24 inches by 24 inches by 24 inches (610 mm by 610 mm by 610 mm), or equivalent; of 1 inch (25 mm) washed rock. Such pits or French drains shall be located 30 inches (762 mm) minimum from outer edge of foundation to nearest edge of pit or French drain. Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance. The condensate drain termination should be below ground within 1 inch of fill gravel. Drain should be protected from freezing where exits the building to 12 inches below ground.



Summary of Change:

FGMP-4 addressed changes that were originally modified in the 2009 adoption and that have been carried forward. It was made to address condensate furnaces, installed in attics that could be subject to freezing drains. It specifies in the absence of the manufacturer's installation instructions; the drain would be protected from freezing in an approved method.

The submitter of FGMP-49 stated the existing rule did not state the drain must terminate into a pit and did not address freeze protection for the outside drain.

Committee Commentary:

At the October 12, 2023, meeting the committee reviewed the history of the change and the other codes that included the added language. At the end of the discussion the form was tabled for further review. The form was tabled again at the November 9, 2024, meeting as another form had been submitted for the same section and was not on the agenda.

At the February 8, 2024, meeting FGMP-49 was reviewed. The committee discussed that termination could not be below ground, and that the submitter was attempting to address a previously approved change from the last adoption. At the end of the discussion, the committee tabled the form as the submitter was not there and FGMP-4 was not on the agenda.

At the April 11, 2024, meeting the committee reviewed both forms at the same time. The committee did not address any issues with the previously adopted language on FGMP-4 but concerns were expressed regarding FGMP-49 related to another change made in Chapter 3 of the code for condensate disposal but determined there was no need to change that as the current change addressed evaporators and they could used to have a gravel pit requirement that somewhere along the way was removed from the code. There was discussion on freeze protection for cooling appliances; that the change did not address fuel-burning appliances and if freezing was common and what protections would be needed.

Committee Action Taken:

Unanimous vote to approve FGMP-4 and deny FGMP-49 (4/11/2024)



Proposed Code Change:

FGMP-12; IMC Rule 748:20-14-8 (9) and IPC rule 748:20-16-8 (9)

IMC 307.2.3.1/IPC 304.2.3.1 Water-level monitoring devices. On down-flow units and all other coils that do not have a secondary drain or provisions to install a secondary or auxiliary drain pan, a water-level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Devices installed in the drain line shall not be permitted.

Exception: This section shall not apply to appliances installed in areas outside on the ground or elevated structure where condensate overflow will not damage building components or contents.

Summary of Change:

This section was modified to add an exception for when the section would not apply. It was originally made by the 2015 FGMP Committee but was further modified in the 2018 adoption to clarify it referred to units installed outside of a structure.

Committee Commentary:

The committee reviewed the form and felt the change should be carried forward in the agency's rules.

Committee Action Taken:

Unanimous vote to approve FGMP-12 as written (2/8/2024)



Changes to the IFGC®



Proposed Code Change:

FGMP-1: IFGC Rule 748:20-12-7 (1) and (2)

DISPENSING AREA. The appropriate hazardous (classified) locations for the fuel being dispensed in accordance with the National Electrical Code® – NFPA® 70.

MAIN RAILROAD TRACK. That part of the railway, exclusive of switch tracks, branches, yards, and terminals upon which trains are operated by timetable or train order or both.

Summary of Change:

The Alternative Fuels Technical Committee added definition of a “Dispensing Area” was added to clarify multiple references in the IFGC. They added the definition of a “Main Railroad Track” to provide clarity to code enforcement officials to provide more uniform compliance across the state. Neither definition in included in the 2024 edition of the code.

Committee Commentary:

The committee reviewed the definitions and felt they should be included in the agency’s rules.

Committee Action Taken:

Unanimous vote to approve FGMP-1 as written (10/12/2023)



Proposed Code Change:

FGMP-5; IFGC Rule 748:20-12-9 (1)

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of ~~12~~ 18 inches (~~305~~ 457 mm) below grade, except as provided for in Section 404.12.1. **Exception:** Where a minimum depth of cover cannot be provided, the pipe shall be installed in conduit or bridged (shielded).

Summary of Change:

This change was brought about in the 2009 adoption and has been kept in the code since then.

Committee Commentary:

At the October 12, 2024, meeting the committee reviewed the existing agency rule and determined it may need to be revised and tabled the form.

At the August 8, 2024, meeting, the committee discussed the added exception and felt it was not needed and should be removed.

Committee Action Taken:

Unanimous vote to approve FGMP-5 as amended to delete the added exception. (8/8/2024)



Proposed Code Change:

FGMP-6; IFGC Rules 748:20-12-9 (2), (3), and (4)

412.5 Attendants. Motor vehicle fueling operations shall be conducted by qualified attendants or in accordance with Section 412.9 by persons trained in the proper handling of LP-gas. **Exception:** When the dispensing equipment meets the guidelines of NFPA® 58 for "Low emission transfer" an attendant is not required.

412.6.1 Low emission transfer. When the dispensing equipment is installed in accordance with Section 6.30.5 of NFPA® 58 for "Low emission transfer," the transfer distance requirements in Table 6.7.2.1 and Section 6.27.4.3 of NFPA® 58 shall be reduced by one-half.

412.9 Public fueling of motor vehicles.

Self-service LP-gas dispensing systems, including key, code and card lock dispensing systems, shall be limited to the filling of permanently mounted containers providing fuel to the LP-gas-powered vehicle.

The requirements for self-service LP-gas dispensing systems shall be in accordance with the following:

1. The arrangement and operation of the transfer of product into a vehicle shall be in accordance with this section and Chapter 61 of the International Fire Code®.
2. The system shall be provided with an emergency shut-off switch located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from dispensers.
3. The owner of the LP-gas motor fuel-dispensing facility or the owner's designee shall provide for the safe operation of the system and the training of users.
4. The dispenser and hose-end valve shall release not more than 4 cubic centimeters of liquid to the atmosphere upon breaking the connection with the fill valve on the vehicle.
5. Fire extinguishers shall be provided in accordance with Section 2305.5 of the International Fire Code®.
6. Warning signs shall be provided in accordance with Section 2305.6 of the International Fire Code®.
7. The area around the dispenser shall be maintained in accordance with Section 2305.7 of the International Fire Code®.



Summary of Change:

These sections were originally modified by the AFPTC (Alternative Fuels Program Technical Committees) to address new technologies for low- emission transfer equipment that is now available. NFPA 58 has requirements that must be met to allow for the equipment and the changes addressed above. When reviewed during the adoption of the 2018 codes, the FGMP committee felt the changes should be kept in the code.

Committee Commentary:

At the October 12, 2023, meeting, the committee reviewed the history of the change and concern as expressed by the LP Gas Administration regarding some of the language, and the change was tabled.

At the November 9, 2023, meeting the committee discussed LP Gas Administration authority, that not all contractors knew propane required a special permit; and adding language to refer to NFPA-58 and the LP Gas Administration in the agency's rules. There was further discussion on the differences between regular transfer and low-emission transfers and training requirements. At the end of the discussion the form was tabled.

At the February 8, 2024, meeting the committee determined the proposed language was acceptable but determined a need to remove the change related to training.

Committee Action Taken:

Unanimous vote to approve FGMP-6 as amended to delete the exception language added to Section 412.9 in the 2018 adoption related to training (2/8/2024)



Proposed Code Change:

FGMP-7; IFGC Rule 748:20-12-9 (5)

413.3.2 Warning signs. Warning signs complying with Section 310 of the International Fire Code® shall be posted as follows:

Warning sign(s) shall be conspicuously posted within sight of each dispenser in the fuel dispensing area and shall state the following:

1. No smoking
2. Shut off motor
3. Flammable Gas
4. Natural gas vehicle fuel cylinders shall be inspected at intervals not exceeding 3 years or 36,000 miles to ensure safe operation of the vehicle
5. Natural gas fuel cylinders past their end-of-life date shall not be refueled and shall be removed from service.

A warning sign with the words "NO SMOKING, FLAMMABLE GAS" shall be posted in all compressor and storage areas.

The lettering on the sign shall be legible and large enough to be visible from each point of transfer.

The service pressure of each dispenser shall be posted in view of the operator

Summary of Change:

This section was added to require warning signs be posted on Compressed Natural Gas (CNG) dispensing devices. The change was originally made by the AFPTC and was approved by the 2018 BEBF committee to be carried forward.



Committee Commentary:

The committee reviewed the existing language and determined there appeared to be no conflicts between NFPA and the code.

Committee Action Taken:

Unanimous vote to approve FGMP-7 as written (10/12/2023)



Proposed Code Change:

FGMP-8; IFGC Rule 748:20-12-9 (6)

413.5 Private fueling of motor vehicles. Self-service CNG-dispensing systems, including key, code and card lock dispensing systems, shall be limited to the filling of approved, permanently mounted fuel containers ~~on CNG-powered vehicles~~

In addition to the requirements in the International Fire Code, the owner of a self-service CNG-dispensing facility shall ensure the safe operation of the system and the training of users.

Summary of Change:

This section was modified by the Alternative Fuels Technical Committee, as it was common to find CNG trailers utilized in various approved applications throughout the state, the vehicle pulling the trailer was not always a CNG powered vehicle and by removing the requirement it allowed for better use of the trailers. The change also clarifies that it is the responsibility of the owner or user of a vehicle to be properly trained on their vehicle's filling procedures and not the fuel station to provide necessary training.

Committee Commentary:

The committee discussed private fueling of motor vehicles; qualified trainers; training provided by OnCue for CNG vehicles, training requirements, and different variables for CNG self-service dispensing systems. There was further discussion on enforcement of training and liability issues associated with training.

Committee Action Taken:

Unanimous vote to approve FGMP-8 as amended to approve the changes proposed in the first paragraph and delete the change identified in the second paragraph to match the published language which requires the owner or operator of the dispensing facility to train users
(10/12/2023)



Proposed Code Change:

FGMP-9; IFGC Rules 748:20-12-9 (7), (8), and (9)

413.9 Emergency shutdown ~~control~~ devices. ~~An A remote and local emergency manual shutdown control device shall be provided located within 75 feet (22 860 mm) of, but not less than 25 feet (7620 mm) from, dispensers and shall also be provided in the compressor area. Upon activation, the emergency shutdown system shall automatically shut off the power supply to the compressor and close valves between the main gas supply and the compressor and between the storage containers and dispensers and automatically shut off the power supply to the compressor and the following associated devices: dispensing enclosures; remote pumps; power, control, and signal circuits; and electrical equipment in the hazardous (classified) locations surrounding the fuel dispensing enclosures. All labeled emergency shutdown devices shall be interconnected, whether required or not. Resetting from an emergency shutoff condition shall require manual intervention and the manner of resetting shall be approved by the Authority Having Jurisdiction. **Exception:** In time-fill applications, in lieu of a defined remote and local emergency manual shutdown device, an emergency manual shutdown device shall be provided within 50 feet (15 240mm) of each fixed point of dispensing hose attachment and located inside and outside the compressor area within 10 feet (3048 mm) of the main access to the compressor area.~~

413.9.1 Remote emergency shutdown device. A remote emergency manual shutdown device shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from all dispensing enclosures and shall be provided inside and outside the compressor area within 10 feet (3048 mm) of the main access to the compressor area. Exception: A remote emergency manual shutdown device may be located greater than 100 feet (30 480 mm) from one or more dispensing enclosures when within line of sight of the dispensing enclosures and approved by the Authority Having Jurisdiction

413.9.2 Local emergency shutdown device. A local emergency manual shutdown device shall be located within 15 feet (4572 mm) of each dispensing enclosure.



Summary of Change:

The AFPTC modified Section 413.8 and added sections 413.8.1 and 413.8.2 after extensive discussions to address emergency stop devices. The requirements for different fuels under the same canopy and possibly on the same island took some time to work through. After discussions that included the committee members and the Corporation Commission, the language above was approved. Discussions included the different distances required by the emergency stop devices and dispensing devices, assumptions by first responders and what would be stopped by the emergency shutdown devices, lighting requirements, and the differences between public dispensing devices and private slow-fill (time-fill) dispensing devices and the need to address both types of systems.

Committee Commentary:

The committee reviewed the history of the change, conflicts between different fuel dispensing devices that could occur when on an island together, and what agencies would need to be involved in any changes to the section to make sure everything worked together.

Committee Action Taken:

Unanimous vote to approve FGMP-9 as written (4/11/2024)



Changes to the IMC[®]



Proposed Code Change:

FGMP-47; Proposed changes to Chapter 2 and 9 of the 2018 IMC®.

Multiple changes proposed to update the 2018 edition of the IMC® to comply with the A2L Refrigerant Related Code Provisions of the 2024 I-codes.

Summary of Change:

The submitter was requesting the 2018 edition be updated related to A2L Refrigerants.

Committee Commentary:

The committee reviewed the form and felt they should not approve changes to the 2018 code as that was outside of their assigned task and the language was in the 2024 code.

Committee Action Taken:

Unanimous vote to deny FGMP-47 (4/11/2024)



Proposed Code Change:

FGMP-10; IMC Rule 748:20-14-8 (1)

301.15 Wind resistance. Mechanical equipment, appliances and supports that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with the International Building Code[®], SMACNA HVAC Duct Construction Standards - Metal and Flexible, and other approved methods.

Summary of Change:

This change was added by the FGMP-2015 committee to add a new standard to the requirements for mechanical equipment, appliances, and supports exposed to wind to be signed and installed in accordance with the new standard.

Committee Commentary:

The committee discussed the added standard in the proposed change and felt it was still a good option to add to the section.

Committee Action Taken:

Unanimous vote to approve FGMP-10 as written (2/8/2024)



Proposed Code Change:

FGMP-11; IMC Rule 748:20-14-8 (6)

305.5.2 Location and protection of refrigerant piping. Refrigerant piping installed within 1 1/2 inches (38 mm) of the underside of roof decks shall be protected from damage caused by nails and other fasteners.

Summary of Change:

This section was added by the 2015 FGMP committee to add language for the location and protection of refrigerant piping installed on the underside of roof decks. .

Committee Commentary:

The committee discussed the section number had changed from the 2018 edition to the 2024 edition; a change in the parent section 303.5 that went from 1 ½ inches to 1 ¼ inches and debated if the size listed in FGMP-11 should be changed to match the 2024 sizing. They discussed the amendment only addressed the underside of roof decking; if CSST should have the same protection; and if the change should be added to the list of items in Section 305.5 instead of a separate item in the code. There was further discussion on distance requirements and if the protection required made a difference.

Committee Action Taken:

Unanimous vote to approve FGMP-11 as modified to change the section number from 305.5.1 to 305.5.2 (2/8/2024)



Proposed Code Change:

FGMP-13; IMC Rule 748:20-14-10 (1)

502.15 Repair garages. Where Class I liquids or LP-gas are stored or used within a building having a basement or pit wherein flammable vapors could accumulate, the basement or pit shall be provided with ventilation designed in accordance with Section 2311.4.3 of the International Fire Code® to prevent the accumulation of flammable vapors therein.

Summary of Change:

This section was modified by the AFPTC committee to require anyone utilizing the IMC to design ventilation requirements to look at the IFC for requirements for alternative fuels.

Committee Commentary:

The committee reviewed the change and the change to the IFC that was called out in the IMC rules.

Committee Action Taken:

Unanimous vote to approve FGMP-13 as written (2/8/2024)



Proposed Code Change:

FGMP-14; IMC Rule 748:20-14-10 (2)

506.3.1 Grease duct materials. Grease ducts serving Type I hoods shall be constructed of non-galvanized carbon steel having a minimum thickness of 0.0575 inch (1.463 mm) (No. 16 gage) or stainless steel not less than 0.0450 inch (1.14 mm) (No. 18 gage) in thickness. **Exception:** Factory- built commercial kitchen grease ducts listed and labeled in accordance with UL 1978 and installed in accordance with Section 304.1.

Summary of Change:

This section was modified by the 2015 FGMP committee to provide clarity to the section and bring it in line with the terminology used in NFPA 96.

Committee Commentary:

The committee reviewed the form and discussed the differences in the 2018 and 2024 language and determined the change should be brought forward.

Committee Action Taken:

Unanimous vote to approve FGMP-14 (2/8/2024)



Proposed Code Change:

FGMP-15; IMC Rules 748:20-14-10 (3) and 748:20-14-20 (8)

507.2 Type I hoods. Type I hoods shall be installed where cooking appliances produce grease or smoke as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty, and extra-heavy-duty cooking appliances. **Exceptions:**

1. Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg per cubic meter when tested at an exhaust flow rate of 500 cfm (0.236 cubic meters per second) in accordance with UL 710B.
2. Where approved, a Type II hood equipped with a suppression system listed in accordance with UL 300A, or meeting the requirements of ICC-ES LC 1031, shall be permitted in new construction and renovation of adult day care facilities or child day care facilities having an occupant load of 16 or less, with a single domestic Medium Duty Cooking Appliance, utilized for warming food only.

Chapter 15 Referenced Standards

(8) The referenced standard "UL 300A 2006 edition, Outline of Investigation for Extinguishing System Units for Residential Range Top Cooking Surfaces, has been added to the code. This reference has been added to read: 300A-06 Outline of Investigation for Extinguishing System Units for Residential Range Top Cooking Surfaces: 507.2.

Summary of Change:

This section was originally amended in the 2009 adoption and further modified by the 2015 FGMP committee. In the 2018 review, the change was modified again, and a crossover change was made to IFC that is addressed on comment form BEBF-66. A referenced standard was also added to the code to address this change.

Committee Commentary:

The committee discussed the form and State Fire Marshal directives for Type I hoods.

Committee Action Taken:

Unanimous vote to approve FMGP-15 as written (2/8/2023)



Proposed Code Change:

FGMP-16; IMC Rule 748:20-14-11

604.1 General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13, the International Energy Conservation Code® and SMACNA HVAC Duct Construction Standards – Metal and Flexible.

Summary of Change:

This modification was originally made in the 2015 adoption. It adds a standard that all duct installation will conform to, as it provides the proper methods for tabbing and affixing insulation to ductwork.

Committee Commentary:

The committee noted the SMACNA standard addressed the proper methods for tabbing and affixing insulation to duct work and agreed the change should be kept in the agency rules.

Committee Action Taken:

Unanimous vote to approve FGMP-16 as written (4/11/2024)



Proposed Code Change:

FGMP-18; IMC Rule 748:20-14-16

~~**1102.3 Access port protection.** Refrigerant access ports shall be protected in accordance with Section 1101.10 whenever refrigerant is added to or recovered from refrigeration or air-conditioning systems.~~

Summary of Change:

This section was originally modified by the FGMP 2015 committee. In the 2018 adoption the section was stricken from the code due to a lack of ability to enforce and the liability associated with the section.

Committee Commentary:

The committee discussed the change deleted the requirement to provide refrigerant caps, the cost of caps, lack of ability to enforce the code requirement; and extra tools required for the caps that service people may not have. They discussed the history of the change was to prevent huffing of the refrigerant; that they were easily defeated; and it was not about preventing leaks of the refrigerant. They reviewed the section deleted only dealt with existing systems and there was a requirement later in the Chapter to deal with new equipment.

Committee Action Taken:

Unanimous vote to accept FGMP-18 as written (4/11/2024)



Changes to the IPC®



Proposed Code Change:

FGMP-20; IPC Rule 748:20-16-7

BUILDING DRAIN. That part of the lowest piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside and that extends ~~30 inches (752 mm)~~ 5 feet (1524 mm) in developed length of pipe beyond the exterior walls of the building and conveys the drainage to the building sewer.

- (1) Combined. A building drain that conveys both sewage and storm water or other drainage.
- (2) Sanitary. A building drain that conveys sewage only.
- (3) Storm. A building drain that conveys storm water or other drainage, but not sewage.

Summary of Change:

This change was made by the 2015 FGMP committee to better align with the industry convention that the site sewer (civil) picks up at 5 feet outside of the building.

Committee Commentary:

The committee reviewed the change and felt it should be kept in the agency rules.

Committee Action Taken:

Unanimous vote to approve FGMP-20 (4/11/2024)



Proposed Code Change:

FGMP-21; IPC Rule 748:20-16-8 (1)

305.3 Pipes through foundation walls. Any pipe that passes through a foundation wall shall be provided with a relieving arch or pipe sleeve pipe shall be built into the foundation wall. The relieving arch or pipe sleeve shall conform to one of the materials and standards listed in Table 702.2, or as approved. The sleeve shall be two pipe sizes greater than the pipe passing through the wall.

Summary of Change:

This modification was added by the 2015 committee to clear up confusion about the materials to be used in making relieving arches.

Committee Commentary:

The committee reviewed the change and felt it should be kept in the agency rules.

Committee Action Taken:

Unanimous vote to approve FGMP-21 (4/11/2024)



Proposed Code Change:

FGMP-22; IPC Rule 748:20-16-8 (2)

305.4.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be ~~installed not less than [NUMBER] inches (mm)~~ a minimum of 12 inches (305 mm) or as approved by the authority having jurisdiction below finished grade at the point of septic tank connection. Building sewers shall be ~~installed not less than [NUMBER] inches (mm)~~ a minimum of 12 inches (305 mm) below grade.

Summary of Change:

This modification was originally made by the 2009 committee then modified by the 2015 committee. The code requires a number to be inserted, but the committee has added language to address another option if approved by the local authority having jurisdiction.

Committee Commentary:

The committee discussed the history of the modification in the agency's rules; that it gave each jurisdiction the ability to change it as needed; the definition of a building sewer, which could either go to a septic system or a public main; and Oklahoma Department of Environmental Quality requirements for septic systems.

Committee Action Taken:

Unanimous vote to approve FGMP-22 as written (4/11/2024)



Proposed Code Change:

FGMP-23; IPC Rule 748:20-16-8 (3)

305.6 Protection against physical damage. In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than ~~1 ¼ inches (32 millimeter)~~ 1 ½ inches (38 millimeter) from the nearest edge of the member, the pipe shall be protected by steel shield plates. Such shield plates shall have a thickness of not less than 0.0575 inch (1.463 mm) (No. 16 gage). Such plates shall cover the area of the pipe where the member is notched or bored, and shall extend not less than 2 inches (51 mm) above sole plates and below top plates.

Summary of Change:

The submitter of the comment form noted the 2018 IPC was not in line with the other I-codes and the change would keep the requirements the same.

Committee Commentary:

The committee reviewed the change and felt it would help align codes.

Committee Action Taken:

Unanimous vote to approve FGMP-23 as written (4/11/2024)



Proposed Code Change:

FGMP-24; IPC Rule 748:20-16-8 (4), (5), & (6)

312.2 Drainage and vent water test. A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but no section shall be tested with less than a ~~10-foot (3048 mm)~~ 5 foot (1524 mm) head of water. In testing successive sections, ~~not less than the upper 10 feet (3048 mm)~~ at least the upper 5 feet (1524 mm) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost ~~10 feet (3048 mm)~~ 5 feet (1524 mm) of the system, shall have been submitted to a test of less than a ~~10-foot (3048 mm)~~ 5 foot (1524 mm) head of water. This pressure shall be held for ~~not less than~~ at least 15 minutes. The system shall then be tight at all points.

312.3 Drainage and vent air test. Plastic piping shall not be tested using air. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of ~~5psi (34.5 kPa)~~ 2.5 psi (17.25 kPa) or sufficient to balance a ~~10-inch (254mm)~~ 5-inch (127 mm) column of mercury. This test shall be held for a period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made prior to the beginning of the test period.

312.7 Gravity sewer test. Where required, gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, filling the building sewer with water, testing with not less than a ~~10-foot (3048 mm)~~ 5 foot (1024 mm) head of water and maintaining such pressure for 15 minutes.

Summary of Change:

These modifications were originally made by the 2009 Plumbing committee. The original changes allowed the AHJ to specify the testing at less than a 10-foot head of water. In the 2015 review the FGMP committee changed it to a 5-foot head of water to match what was being done by jurisdictions in Oklahoma and changed the equivalent pressure requirements in Section 312.3 to match. They felt the changes would allow the AHJ to require a more stringent test if they felt it was needed.



Committee Commentary:

The committee noted the change provided safety by not requiring the use of a ladder to observe the test.

Committee Action Taken:

Unanimous vote to approve FGMP-24 as written (4/11/2024)



Proposed Code Change:

FGMP-25; IPC Rule 748:20-16-8 (7)

312.11.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether the assemblies are operable ~~and air gaps exist~~, in accordance with Chapter 1, Sections 104.3 and 105.3.2.

Summary of Change:

This modification was made by the 2015 FGMP committee. The change gave the AHJ the ability to allow for a third-party agency to do the annual inspection of the backflow preventer.

Committee Commentary:

The committee reviewed the change would allow for third-party inspections.

Committee Action Taken:

Unanimous vote to approve FGMP-25 as written (4/11/2024)



Proposed Code Change:

FGMP 52 – Modifying Section 403.1

403.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number as shown in Table 403.1, based on the actual use of the building or space. Uses not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the International Building Code. **Exception:** Plumbing fixtures shall not be required for buildings and facilities intended to be unoccupied and as approved by the code official such as, but not limited to, personal self-storage bays, shipping containers used only of on-site storage of materials, and structures housing equipment.

Summary of Change:

The submitter noted the change allowed for exceptions to the requirements for plumbing fixtures for those spaces and uses not being occupied as determined by the Code Official. He noted the IBC requires restrooms fixtures for all uses exception Utility U-use. He added jurisdictions were seeing many scenarios in which a use may not be defined as U-use but did not have any true occupancy. He cited examples such as a data-mining facility utilizing multiple modular buildings housing equipment or small storage structures for an oil-well fracking comping housing explosives and not intended to be occupied. The submitter note the exception would allow the code official greater freedom to determine if the requirement for fixtures was appropriate or not.

Committee Commentary:

The committee discussed a similar change was approved by the BEBF committee and the change required approval of the code official.

Committee Action Taken:

Unanimous vote to approve FGMP-52 (7/11/2024)



Proposed Code Change:

FGMP-27; IPC Rule 748:20-16-9 (1)

403.4.1 Directional Signage. Directional signage indicating the route to the required public toilet facilities in group A, B, I, M, and R-1 occupancies shall be posted in a lobby, corridor, or aisle, or similar space, such that the sign can be readily seen from the main entrance to the building or tenant space. Only one sign at each main entrance that is intended for public use shall be required. Exceptions:

1. Group A occupancies that are part of an overall Group E occupancy need not have directional signage.
2. Private-use Group B occupancies need not have directional signage.

Summary of Change:

This modification was originally made to the 2015 IBC and was not correlated over to the 2015 IPC. The change was made due to concerns that the public could be turned away from usage of public toilet facilities due to discrimination when in certain occupancies. The change was to clarify which occupancy types must have directional signage to prevent discrimination. The 2018 BEBF committee approved keeping the change and at that time recommended the same change be made to the IPC. The 2018 FGMP committee approved the language.

Committee Commentary:

The committee reviewed the comment form and felt the language should be brought forward into the 2024 adoption.

Committee Action Taken:

Unanimous vote to approve FGMP-27 (5/9/2024)



Proposed Code Change:

FGMP-28; IPC Rule 748:20-16-9 (2)

405.9 Slip joint connections. Slip joints shall be made with an approved elastomeric gasket and shall only be installed ~~on the trap outlet, trap inlet and within the trap seal~~ from fixture outlet to within 18 inches (457 mm) downstream of trap outlet seal. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space ~~not less than~~ at least 12 inches (305 mm) in its smallest dimension or other approved arrangement so as to provide access to the slip joint connections for inspection and repair.

Summary of Change:

This modification was originally made during the 2009 adoption to allow the installation of slip joints anywhere between the fixture and trap outlet. The 2015 committee further modified the language during their review. The 2018 committee kept the language created in 2015.

Committee Commentary:

The committee reviewed the comment form and felt the language should be brought forward into the 2024 adoption.

Committee Action Taken:

Unanimous vote to approve FGMP-28 (5/9/2024)



Proposed Code Change:

FGMP-45; Proposing a modification to Section 410.3.1 Minimum number

410.3.1 Minimum number. Not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons. **Exceptions:**

1. A single drinking fountain with two separate spouts that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.
2. Where drinking fountains are primarily for children's use, the 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 (762 mm) above the floor.
3. A single drinking fountain with a spout set 15" minimum out from the wall and 36" above the floor and no further than 5" back from the front edge, that is also a bottle filler design, shall be permitted to be substituted for two separate drinking fountains.

Summary of Change:

The submitter of this proposed change noted generally people find drinking fountains to be unsanitary and many people carry water bottles. A drinking fountain set and designed according to ADA, plus is also a bottle filler servers the people better, is more sanitary, and saves money and space. Further a standing person would have no problem using a drinking spout set at 36" above the floor.



Committee Commentary:

The committee discussed concerns with the form which would require a drinking vessel to access water and that one might not be available. There was further discussion on the need for a correlating change to be proposed to the BEBF committee if the section was modified; issues with replacing all water fountains with bottle fillers and problems with water fountains during and after COVID.

Committee Action Taken:

Unanimous vote to deny comment form FGMP-45



Proposed Code Change:

FGMP-30; IPC Rule 748:20-16-9 (4) and FGMP-50 proposing a new change to the same section of code

FGMP 30:

410.4 Substitution. Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In occupancy Group B, F, M, I-4 and S, with an occupant load less than 50, where drinking fountains are required, a water dispenser connected to the potable water distribution system shall be permitted to be substituted for the required drinking fountain. ~~In other occupancies other than restaurants~~ where 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.

FGMP 50:

410.4 Substitution. Where ~~restaurants~~ Group A Occupancies provide drinking water in a container free of charge, drinking fountains shall not be required in those ~~restaurants occupancies~~. In occupancy Group B, F, M, I-4, and S, with an occupant load less than 50, where drinking fountains are required a water dispenser connected to the potable water distribution system shall be permitted to be substituted for the required drinking fountain. In occupancies other than restaurants where 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.

FGMP 51:

410.4 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. Exceptions:



1. In Group A use with an occupant load of 50 or fewer where facilities are provided for the consumption of food or beverage and a container is provided free of charge, a water dispenser connected to the potable water distribution system and the drainage system shall be permitted to be substituted for the required drinking fountain. Water dispensers shall not be portable.
2. In Group B, F, M, I-4 and S occupancies with an occupant load of 50 or fewer a water dispenser connected to the potable water distribution system and the drainage system shall be permitted to be substituted for the required drinking fountain. Water dispensers shall not be portable.

Summary of Change:

FGMP 30: This change was made to by the 2018 FGMP committee. The submitter of the form noted that Table 403.1 required at least one drinking fountain in every occupancy classification except R-1 hotels, R-2 apartment house, and R-3 one- and two-family dwellings and lodging houses with five or fewer guestrooms. They noted the ratio for the first drinking fountain was anywhere from 1 to 100 occupants to 1 per 1000 occupants depending on the occupancy classification. They added in the IBC section 1109.5 required where a drinking fountain was provided on the exterior site, a floor or within a secured area, not fewer than two drinking fountains shall be provided. One for wheelchair use and one for standing use, with 2 exceptions one for spouts that comply with both the wheelchair and standing requirements and the other modifies the height of fixtures when primarily used by children.

FGMP 50: The submitter noted the change would offer more flexibility

FGMP 51: The submitter stated the proposed change was intended to give an alternate source of drinking water in small occupancies where, providing two drinking fountains consumed valuable floor space and was costly. The submitter cited the requirements for drinking fountains in the



Summary of Change Continued:

IPC and IBC that clarified the need for water fountains in different occupancy uses and the number and types of fountains needed. They noted cost and the space used associated with the fountains as issues in small occupancies and that when jurisdictions allowed for a substitution that was not permanently tied to the water distribution system they could easily be removed, leaving the lavatory in a toilet room or the service sink as the only drinking water source.

Committee Commentary:

At the May 9, 2024, meeting the committee discussed the history of the change in FGMP 30. Ms. Amber Armstrong addressed the committee noting she was the person who originally submitted the change shown in FGMP-30. She explained the change was intended to use a break room sink in small facilities where the size needed for the water fountains would take up a considerable portion of the square footage. She proposed further language that would require someone from the committee to submit as she had missed the deadline for the public to submit comment forms. She reviewed her proposed language. At the end of the discussion both FGMP- 30 & FGMP-50 were tabled and Mr. Favata agreed to work with Ms. Armstrong on her revised language.

At the April 11, 2024, meeting the committee reviewed all three forms. The committee noted FGMP-50 which added language to the existing change shown in FGMP-30, but that FGMP-51 used the existing 2024 language and added two exceptions. They discussed the proposed changes were shown to the BEBF committee for correlation purposes; that a restaurant would be required to provide a container for drinking purposes free of charge; that the change addressed the permanence of any substitution making it be into the potable water dispensing and the



Committee Commentary Continued:

drainage systems and that the substituted item could not be portable. They noted the changes were limited to small occupancies with an occupancy of 50 or fewer; removal of existing fountains after COVID; and if the change was a reasonable compromise. There was further discussion that containers may not always be available where a water fountain was required; that jurisdictions did not go out to check the status of existing water fountains and if they had been removed; costs and square footage related to drinking fountains; that there was no interest at the national level to provide anything other than drinking fountains and that there was a need for both a high and low fountains for people with different disabilities. The committee discussed that a bottle filler or sink would need to be installed at specific heights meeting ADA compliance; small facilities didn't even want to provide a bathroom for the public let alone a water fountain; different ways to modify the proposed language; issues with current language in the OUBCC rules and what could be approved based on that language; and the differences between a Group A occupancy and Group B occupancy with a Group A use.

Committee Action Taken:

Vote of 5 to 2 to accept FGMP-51 and deny FGMP-30 and FGMP-50 and remove the existing language represented on FGMP-30 from the agency's rules (4/11/2024)



Proposed Code Change:

FGMP-31; IPC Rule 748:20-16-11 (1)

604.5 Size of fixture supply. The minimum size of a fixture supply pipe shall be as shown in Table 604.5. The fixture supply pipe shall terminate not more than 30 inches (762 mm) from the point of connection to the fixture. A reduced size flexible water connector installed between the supply pipe and the fixture shall be of an approved type. The supply pipe shall extend to the floor or wall adjacent to the fixture. The minimum size of individual distribution lines utilized in gridded or parallel water distribution systems shall be as shown in Table 604.5. **Exception:** The fixture supply pipe for domestic dishwashers and drinking fountains shall be permitted to be terminated ~~more than 30 inches (762 mm)~~ not to exceed 72 inches (1829 mm) from the point of connection to the fixture.

Summary of Change:

This change was made to by the 2015 FGMP committee. They noted the change was made because most dishwasher valves were turned off under the kitchen sink and the distance from the valve to the dishwasher could be over 30 inches.

Committee Commentary:

The committee discussed the history of the change and current issues with appliances needing more than the 30 inches to reach the fixture connection. Concerns were expressed that the language allowed for a longer length but didn't list a maximum allowed length. At the end of the discussion committee consensus was to limit the length to 6 feet.

Committee Action Taken:

Unanimous vote to approve FGMP 31 as amended to change the language from “more than 30 inches” to “not to exceed 72 inches” (5/9/2024)



Proposed Code Change:

FGMP-34; IPC Rule 748:20-16-11 (4)

608.17.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker assembly, a spill resistant backflow preventer or a reduced pressure principal backflow prevention assembly. ~~Valves~~ A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principal backflow preventer assembly.

Summary of Change:

This change was originally made by the 2009 Plumbing Committee to add a "spill resistant backflow preventer" as an option for protection. In the 2015 FGMP review, they modified the language further. The language was carried forward in the 2018 adoption.

Committee Commentary:

The committee discussed the change, noting spill resistant backflow preventers were a type of pressure vacuum breaker and didn't need to be addressed separately since the section already listed pressure vacuum breakers.

Committee Action Taken:

Unanimous vote to deny FGMP-34 and remove the language from the agency's rules (5/9/2024)



Proposed Code Change:

FGMP-36; IPC Rule 748:20-12 (1)

705.10.2 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Solvent cement not purple in color and conforming to ASTM D2564, CSA B137.3, CSA B181.2 or CSA B182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent-cement joints shall be permitted above or below ground. Exception: A primer is not required where ~~both of~~ the following conditions apply:

1. The solvent cement used is third-party certified as conforming to ASTM D2564.
2. The solvent cement is used only for joining PVC drain, waste and vent pipe and fittings in non-pressure applications in sizes up to and including 4 inches (102 mm) in diameter.
3. The joint is made in accordance with ASTM F3328.

Summary of Change:

This change was originally made by the 2015 FGMP committee due to concerns with the exceptions. They noted both primers and cleaners were important parts of the cementing process.

Committee Commentary:

The committee discussed issues with inspections and trying to determine if the proper adhesive was used; that purple primer helped at least confirm the primer was utilized; if the joints were accessible and the primer was visible, it made sense to use a clear primer; concerns with people spilling primer inside a building; and that in a finished area, clear primer should be acceptable. There was further discussion on the language in the code



Committee Commentary:

The committee discussed issues with inspections and trying to determine if the proper adhesive was used; that purple primer helped at least confirm the primer was utilized; if the joints were accessible and the primer was visible, it made sense to use a clear primer; concerns with people spilling primer inside a building; and that in a finished area, clear primer should be acceptable. clarified the exception required "both conditions exist" but there were three exceptions; they discussed creating a fourth exception for exposed piping only; and tabling action on the form until a comment form was submitted. At the end, committee consensus was to modify the language in the motion.

Committee Action Taken:

Unanimous vote to deny FGMP 36 but correct the language in the section to strike the words "both of" so the language for the section reads: "a primer is not required where the following conditions apply" (5/9/2024)



Proposed Code Change:

FGMP-37; IPC Rule 748:20-16-12 (2)

708.1.3 Building drain and building sewer junction. The junction of the building drain and the building sewer shall be served by a cleanout that is located at the junction or within ~~10 feet (3048 mm)~~ 12 feet (3658 mm) of the developed length of piping upstream of the junction. For the requirements of this section, the removal of the water closet shall not be required to provide cleanout access.

Summary of Change:

This change was originally made by the 2015 FGMP committee. The submitter noted the cleanout should be located at the junction or within 12 feet.

Committee Commentary:

There was some discussion on the history of the change and that a local jurisdiction could allow for a modification from the 10 feet allowed in the code, if needed on a case-by-case basis.

Committee Action Taken:

Unanimous vote to deny FGMP-37 and remove the language from the agency's rules (5/9/2024)



Proposed Code Change:

FGMP-39; IPC Rule 748:20-14 (1)

2018:

903.1 Roof extension. Open vent pipes that extend through a roof shall be terminated not less than 10 inches (254 mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes open vent pipes shall terminate not less than 7 feet (2134 mm) above the ~~roof~~ finished occupiable surface within 10 feet (3048 mm) horizontal distance.

2024:

903.1 Vent terminal required. The vent pipe shall terminate by extending to the outdoors through the roof or the sidewall in accordance with one of the methods identified in Sections 903.1.1 through 903.1.4

903.1.1 Roof extension unprotected. Open vent pipes that extend through a roof shall be terminated not less than ~~[NUMBER]~~ 10 inches (254 mm) above the roof.

903.1.2 Roof used for recreational or assembly purposes. Where a roof is to be used as a promenade, restaurant, bar, or sunbathing deck, as an observation deck, or for similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the ~~roof~~ above the finished occupiable surface within 10 feet horizontal distance.

Summary of Change:

This section was originally modified by the 2009 plumbing committee to indicate the vent pipe opening would not terminate at less than 6 inches above the roof. The 2015 committee further modified the section changing the 6 inches to 10 inches and clarified it was related to the finished occupiable surface.



Committee Commentary:

The committee discussed the extensive changes related to the section between 2018 and 2024. They discussed the 2024 code allowed the vents to be shorter, solar panels, and what the change was trying to clarify along with scenarios of how the change would work. At the end of the discussion, the committee felt with the changes in the 2024 code, they should deny the form then discuss what if any changes were needed in the 2024 edition. They discussed the language in Section 903.1.1 which left a blank area to be set by the adopting authority and if it should be completed by the committee, that previous adoption set the limit at 10 inches and the code required vents to above the snow line. They discussed if the 10-foot requirement from the occupiable surface in the FGMP-39 should be included in Section 903.1.2; if the vents should be limited by zones and if a comment form should be submitted.

Committee Action Taken:

Unanimous vote to deny comment form FGMP-39 and remove the language as written from the agency's rules (5/9/2024)

Unanimous vote to modify section 903.1.1 to add "10 inches" to the blank left in the code.

Unanimous vote to modify Section 903.1.2 to delete the word "roof" at the end of the section and add the following language in its place "above the finished occupiable surface within 10 feet horizontal distance."



Proposed Code Change:

FGMP-40; IPC Rule 748:20-16-15

1003.4 Oil separators required. At repair garages where floor or trench drains are provided, car washing facilities, factories where oily and flammable liquid wastes are produced and hydraulic elevator pits, oil separators shall be installed into which oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying into the building drainage system or other point of disposal. ~~Exception~~ **Exceptions:**

(1) An oil separator is not required in hydraulic elevator pits where an approved alarm system is installed. Such alarm systems shall not terminate the operation of pumps utilized to maintain emergency operation of the elevator by fire fighters.

(2) Oil separators shall not be required in a non-hydraulic elevator pit.

Summary of Change:

This section was modified by the 2015 FGMP committee and added a second exception for not requiring an oil separator in hydraulic elevator pits.

Committee Commentary:

The committee discussed the change addressed elevator pits and that elevators were regulated by the Department of Labor; that there generally wasn't a drain in non-hydraulic elevators; that it was a good change because it clarified that an oil separator was not needed; if jurisdictions could require one in a non-hydraulic elevator; that some code officials used the argument in the event of a fire where the fire sprinklers went off, water would get into the water pit so one could be required. There was further discussion where oil would be coming from in the above scenario, and in that case every drain in the building should require an oil separator; and if there was a requirement in the elevator codes that would address the issue or if their requirements simply said any water had to be pumped out.

Committee Action Taken:

Unanimous vote to approve FGMP-40 (5/9/2024)



Proposed Code Change:

FGMP-41; IPC Rule 748:20-16-16 (1), (3), and (4); and FGMP-53

FGMP-53

1108.3 Sizing of Secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 based on the rainfall rate for which the primary system is sized established by the National Oceanic and Atmospheric Administration Precipitation Frequency Data Server (PFDS). The sizing shall be based on the data for 100-year, 15-minute rainfall rate at the nearest station. A unit conversion is necessary to utilize Equation 11-1 in Section 1106.2.1. Scuppers shall be sized to prevent the depth of ponding water from exceeding that which the roof was designed as determined by Section 1101.7. Scuppers shall have an opening dimension of not less than 4 inches (102 mm) in height and have an opening width equal to the circumference of the roof drain required for the area served. The flow through the primary system shall not be considered when sizing the secondary roof drain system.

Summary of Change:

FGMP-41

The code was initially modified in 2009 to require accommodation of rainfall rates of 10.2 inches per hour for a five-minute duration and require minimum design loads. The 2015 committee received an updated request from the same submitter of the 2009 change to address differences in the language between the 2009 and 2015 codes. A table was also added and include a change to the IBC as well.

FGMP-53

Members of the FGMP committee created this form and noted research showed rainfall rates have increased over the last few decades and appropriately sized overflow drainage was critical for buildings.



Committee Commentary:

At the May 9, 2024, meeting the committee reviewed FGMP-41 and discussed; the history of the change and that at one point the codes required larger secondary drains than the current requirements; type of rainfall in Oklahoma; the size of secondary drains; that the change in the 2009 edition required the drains to be sized for 10.5 inches of rainfall for 5 minutes and the current change required 10.5 inches for one hour. There was further discussion regarding the fact the OUBCC should be adopting the minimum requirements for the state; that larger scuppers on a flat roof was reasonable but the drains seemed excessive; life-safety issues seemed excessive; life-safety issues with roof collapses; and if there was middle ground between the code and the code and the change as adopted in the 2018 code. There was further discussion on the responsibility to provide life safety and protect the public; different secondary drain options; what happened if the drains were vapor-locked; and if the submitter of the form could attend the next meeting to discuss the change. At the end of the discussion, the item was tabled for further review.

At the June 13, 2024, meeting the committee met with Mr. Tom Wallace the engineer who had proposed the 2009 modification and the modifications made in the 2015 adoption. Mr. Wallace provided different options he recommended the committee approve to address the updated language in the 2024 code. The committee and Mr. Wallace discussed the different rainfall rates in Oklahoma; that the current change could be interpreted to only allow the use of scuppers and using the gallon per minute rate to design for secondary rainfall. They discussed the options for updating the language proposed by Mr. Wallace; if the rate of rainfall should be increased, the



Committee Commentary continued:

data sources Mr. Wallace was pulling for his rainfall rates; and the language in Section 1611.1 which required a new data source by location based on the risk category of the structure. The committee and Mr. Wallace discussed ways to modify the language; how often roofs collapsed when designed to the current code; and aligning the IBC and IPC requirements. At the end of the discussion, the committee tabled the item for further review.

At the July 11, 2024, meeting the members responsible for the submission were not available and the committee tabled the discussion to the next meeting.

At the August 8, 2024, meeting the committee discussed costs associated with the changes; enforcement of the code and the history of the change to secondary drainage systems. They discussed the code had not kept up with the rainfall rates for the last 20 years and in some areas of the state the 10.2- inch size of the secondary drains was too small and in others too large. They discussed that FGMP-53 pointed to atmospheric data at a granular level; that some of the language proposed could be confusing or interpreted incorrectly; revising the language; microbursts and how much rain could fall in a specific moment in time; and the assumption was that the primary drains were blocked, but not the secondary drains. Committee consensus was to utilize FGMP-53 as modified.

Committee Action Taken:

Unanimous vote to deny FGMP-41 and remove the language from the agency's rules (8/8/2024)

Unanimous vote to approve FGMP-53 as modified to remove the "example" language and replace it with the following: "A unit conversion is necessary to utilize equation 11-1 in Section 1106.2.1" (8/8/2024)



Proposed Code Change:

FGMP-43; IPC Rule 748:20-16-17

1301.9.5 Overflow. The storage tank shall be equipped with an overflow pipe having a diameter not less than that shown in Table 606.5.4. The overflow pipe shall be protected from insects or vermin and shall discharge in a manner consistent with storm water runoff requirements of the jurisdiction. The overflow pipe shall discharge at a sufficient distance from the tank to avoid damaging the tank foundation or the adjacent property. Drainage from overflow pipes shall be directed to prevent freezing on ~~roof~~ walkways. The overflow drain shall not be equipped with a shutoff valve. A cleanout shall be provided on each overflow pipe in accordance with Section 708.

Summary of Change:

This section was during the 2015 adoption. The committee felt that the section should apply to any walkway, not just those on roofs.

Committee Commentary:

The committee reviewed the change and felt it was still appropriate.

Committee Action Taken:

Unanimous vote to approve FGMP-43 as written (6/13/2024)

