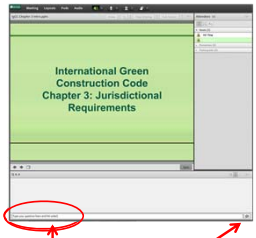
2015 IPC, IMC and IFGC Update webinar

Description

- This webinar is based on: Significant Changes to the 2015 International Plumbing Code®, 2015 International Mechanical Code®, 2015 International Fuel Gas Code®.

Questions and Answers

- At the end of the presentation, please type your questions into the Q & A portion of Adobe Connect Box.
- The facilitator\speaker will respond to your questions at the end of the webinar.



Type your questions into here.

Then hit enter or the send button.

Welcome

- Shawn Martin
- Director of PMG Activities

Polling Questions

About the Significant Changes

- Underlined Text has been added.
  - "Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 706."
- Lined-out text has been deleted.
  - *"Elevator lobbies shall have at least one means of egress complying with Chapter ~~10 and other provisions within this code.~~"*

Part 1

International Plumbing Code, Chapters 1-15

7

202, 410.4 Drinking Fountain, Water Cooler and Water Dispenser Definitions; Substitution for Drinking Fountains

- **CHANGE TYPE:** Modification
- Revised definitions for a *drinking fountains*, *water dispensers* and *water coolers*
  - Clarifies Section 410 on drinking fountain substitutions.
  - Expands the devices allowable for up to 50% reduction in number of drinking fountains.

Courtesy Elkay Mfg

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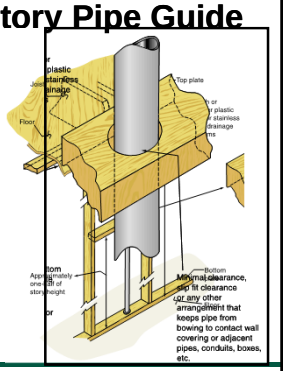
Table 308.5 Mid-Story Pipe Guide

- **CHANGE TYPE:** Modification
- Revises the footnote in Table 308.5 for Mid-story guides.
  - Provides clarification on the intent and compliance.



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403.1 Determining Minimum Number of Plumbing Fixtures

- **CHANGE TYPE:** Modification
- The IBC occupancy classifications (A, B, M, etc.) are no longer used to determine which row in Table 403.1, Minimum Number of Required Plumbing Fixtures, to use for fixture quantities. The actual use of the building or space determines which row in the table to use.

403.3 Required Public Toilet Facilities Exception

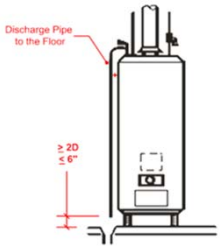
- **CHANGE TYPE:** Modification
- Creates exemption for public toilet access for areas:
  - 300 ft^2 and under AND
  - Used for "quick transactions"
- Examples: dry cleaners, take-out restaurants and ATM lobbies

423.3 Specialty Plumbing Fixtures

- **CHANGE TYPE:** Addition
- Water-temperature-limiting devices are required for supplies to specialty plumbing fixtures.
  - 120°F (49°C) temperature limit
  - Water temperature limiting device must conform to ASSE 1070 or CSA B125.3.
- Includes footbaths, pedicure baths and shampoo sinks.

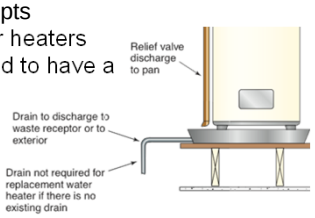
504.6 Temperature and Pressure Relief Discharge Piping

- **CHANGE TYPE:** Modification
- Relief valve discharge pipe termination must have a suitable air gap
  - Previously only limited the maximum height to 6”
  - Now also limits the minimum height to > 2XD off the floor or waste receptor flood level rim



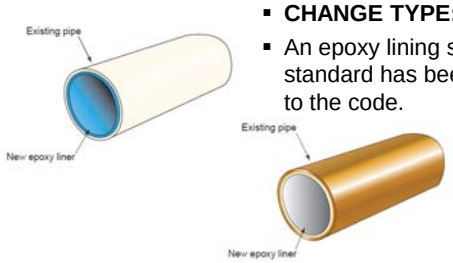
504.7.2 Water Heater Pan Drain Line

- **CHANGE TYPE:** Modification
- Modification exempts replacement water heaters from being required to have a pan drain



601.5 Rehabilitation of Piping Systems by Internal Lining

- **CHANGE TYPE:** Addition
- An epoxy lining system standard has been added to the code.



605.2.1 Lead Content of Components Conveying Drinking Water

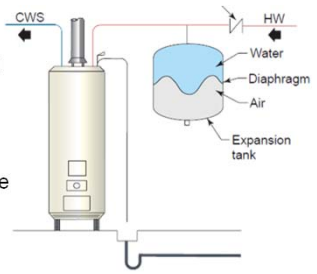
- **CHANGE TYPE:** Addition
- New section added for compliance with the updated Safe Drinking Water Act

605.2.1 Lead Content of drinking Water Pipe and Fittings. Pipe, pipe fittings, joints, valves, faucets and fixture fittings utilized to supply water for drinking or cooking purposes shall comply with NSF 372 and shall have a weighted average lead content of 0.25% or less.

ICC ES PMG LOW LEAD

607.3 Hot Water Thermal Expansion Pressure Control

- **CHANGE TYPE:** Modification
- The available method to control closed-system pressure increases caused by the heating of water has been limited to the use of thermal expansion tanks only.

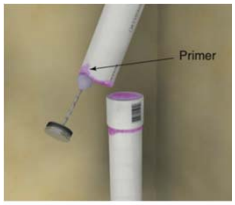


608.8, 608.8.1, 608.8.2 Identification of Nonpotable Water

- **CHANGE TYPE:** Modification
- Fixtures such as water closets and urinals that utilize nonpotable water must be identified with words and a symbol indicating that nonpotable water is being used. The color purple is established for identifying distribution piping conveying nonpotable water.

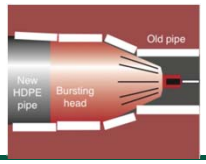
705.11.2 Exception for Solvent Cementing PVC Piping 4 Inches and Smaller

- **CHANGE TYPE:** Modification
- The application of a primer to DWV PVC pipe and fittings prior to solvent cementing is not required for 4-inch pipe size and smaller.



717 Replacement of Sewers by Pipe-Bursting Method

- **CHANGE TYPE:** Addition
- Used for many decades to replace building sewers
- Especially useful where excavation of the existing sewer is difficult and costly because of surface disturbance.



Chapter 13 – Nonpotable Water Systems

- **CHANGE TYPE:** Addition
- New chapter adds rainwater harvesting, reclaimed water systems and significantly updates graywater systems.
  - Moves Subsurface Irrigation provisions to new Chapter 14
  - Based on mature IgCC language

Other Areas of Significant Changes

- **708 -** Cleanouts for Drainage and Waste Systems
- **715.1** - Exception for Backwater Valve Installations
- **716** - Vacuum Drainage Systems (NEW)
- **903** – Vent terminations outdoors
- **1002.4** – Trap seal protection against evaporation
- **1003.3.6** – Gravity Grease Interceptors (NEW)
- **1005.2** – Roof drain flowrate sizing methodology

Part 2

International Mechanical Code, Chapters 1-15

304.11 Fall-Arresting Restraint Systems

403.3 Outdoor Air and Local Exhaust Airflow Rates

- **CHANGE TYPE:** Addition
- The new text introduces the basic requirements of ASHRAE 62.2 related to mechanical ventilation for Group R-2, R-3 and R-4 buildings three stories or less in height.

404.1 Intermittent Operation of Mechanical Ventilation Systems for Enclosed Parking Garages

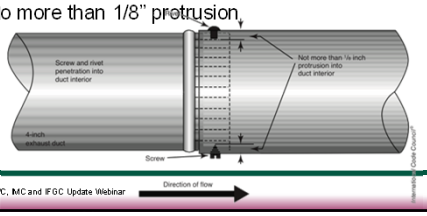
- **CHANGE TYPE:** Modification
- For enclosed parking garages, the ventilation system must:
  - Operate continuously or
  - Be automatically controlled for intermittent operation utilizing both carbon monoxide and nitrogen dioxide detectors.
- The option to detect vehicle operation or occupant presence has been deleted.

504.5, 504.8.4.3 Dryer Exhaust Duct Power Ventilators

- **CHANGE TYPE:** Addition
- New text recognizes the use of dryer exhaust duct power ventilators (DEDPVs) for installations that exceed the allowable exhaust duct length for clothes dryers.

504.8.2 Dryer Exhaust Duct Installation

- **CHANGE TYPE:** Modification
- Instead of prohibiting all duct fasteners such as screws and rivets, the code now limits the penetration of fasteners where installed.
  - No more than 1/8" protrusion

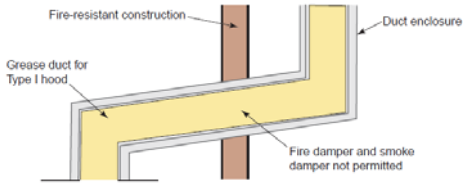


505.3 Domestic Kitchen Exhaust Systems in Multistory Buildings

- **CHANGE TYPE:** Addition
- New text regulates the design and construction of exhaust shafts that serve domestic kitchen exhaust systems in multistory buildings.
- Similar to designs permitted previously for domestic clothes dryer exhaust.
- List of 12 different requirements addressing the many design considerations for the shaft and equipment.

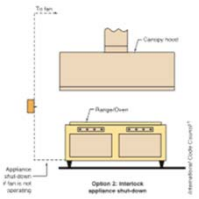
506.3.11 Grease Duct Enclosures

- **CHANGE TYPE:** Modification
- The code specifically prohibits the installation of fire and smoke dampers in grease ducts.



507.1.1 Commercial Kitchen Exhaust Hood System Operation

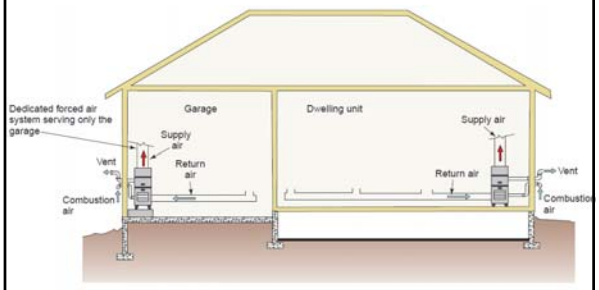
- **CHANGE TYPE:** Modification
- The requirement for automatic activation of the exhaust system has been revised to provide the intended performance requirements.
  - Clarifies that an interlock arrangement is an alternative to automatic hood operation.



508.1.2 Air Balance for Commercial Kitchen Ventilation Systems

- **CHANGE TYPE:** Addition
- This new section requires that an air balance schedule be submitted with the design plans for commercial kitchen ventilation systems.

601.5 Return Air Openings



602.1 Plenums Limited to One Fire Area

- **CHANGE TYPE:** Clarification
- The revision clarifies that a plenum in a fire area cannot be connected to a plenum in an adjoining fire area by means of transfer ducts or openings,
- This is regardless of the presence of fire dampers.

603.9 Duct Joints, Seams and Connections

- **CHANGE TYPE:** Modification
- Duct sealant tapes used on sheet-metal ducts must be listed to UL 181B as is required for sealing tapes and mastics for flexible ducts.
- Snap-lock and button-lock seams are no longer exempt from the sealing requirements.

701.2 Dampered Openings

- **CHANGE TYPE:** Addition
- Where dampers are installed on combustion air openings, the code now requires an interlock with the appliance to prevent operation of the appliance when the damper is closed.
- Manual dampers are prohibited on combustion air openings.

Part 3

International Fuel Gas Code, Chapters 1-8

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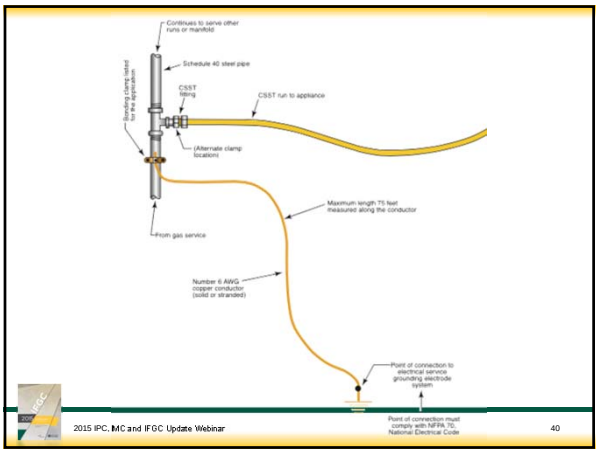
307.6 Condensate Pumps

- **CHANGE TYPE:** Addition
- Condensate pumps located in uninhabitable spaces and used with condensing fuel-fired appliances and cooling equipment must be connected to the appliance or equipment served by the pump to prevent water damage in the event of pump failure.

310.1.1 Electrical Bonding of Corrugated Stainless Steel Tubing

- **CHANGE TYPE:** Addition
- Text has been added to address the allowable length of the bonding jumper wire and the methods of making the bonding connections.

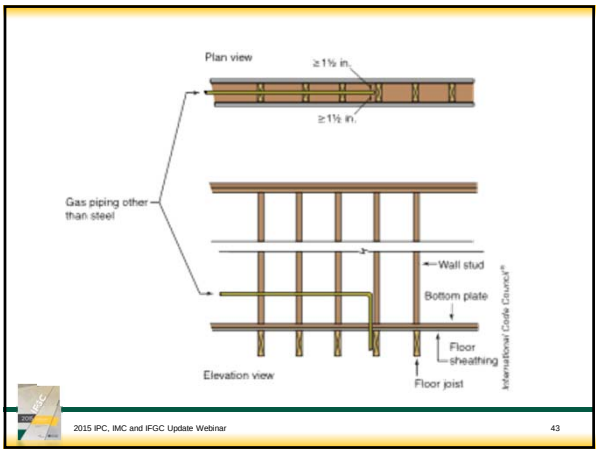


404.5 Fittings in Concealed Locations

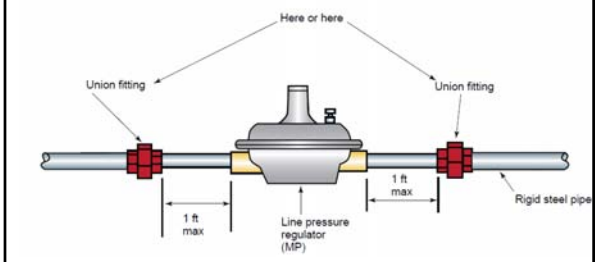
- **CHANGE TYPE:** Clarification
- This section retains its basic intent, while being completely reorganized to clarify the correct application.
- Threaded elbows, tees and couplings are now specifically approved for concealed locations (as the code always intended).
- Now provides the referenced standards for fittings listed for concealed locations.

404.7 Protection of Concealed Piping against Physical Damage

- **CHANGE TYPE:** Modification
- Completely rewritten to address more than just bored holes and notches in structural members.
- Now addresses piping parallel to framing members and piping within framing members.
- Requires that the protection extend well beyond the edge of members that are bored or notched.



410.2 Medium-Pressure Regulators

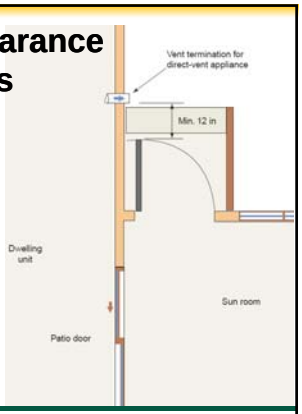


411.1.1 Connectors for Commercial Cooking Appliances

- **CHANGE TYPE:** Modification
- Specific installation requirements have been added for the safe installation of ANSI Z21.69 connectors for commercial cooking appliances. The options to connect the cooking appliance with semirigid tubing or rigid pipe have been removed.

502.7.1 Door Clearance to Vent Terminals

- **CHANGE TYPE:** Addition
- Coverage has been added to address the condition where a door could impact or come too close to an appliance vent terminal.



503.8 Venting System Termination Location

- **CHANGE TYPE:** Modification
- Text has been added to address the location of sidewall vent terminals with respect to adjoining buildings.
- Previous editions of the code were silent on this subject, and the appliance manufacturer's instructions are typically silent as well.

Questions and Answers

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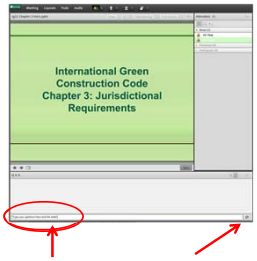

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2015 IPC, IMC and IFGC Update webinar

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2015 International Plumbing, Mechanical and Fuel Gas Code Update

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2015 IPC, IMC and IFGC Update Webinar 49

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The 2015 *International Plumbing Code*® (IPC®) continues to emphasize both prescriptive and performance-related provisions. The 2015 IPC encompass the initial design of the plumbing system, the installation and construction of plumbing systems and the maintenance of operating systems. All plumbing systems that are provided for utilization by and for the general safety and wellbeing of the occupants of a building are intended to be governed by the code. The code change cycle has made many improvements to the 2015 IPC that provide clarity of content and resolve common interpretation issues.

Goal

Participants will be able to use this document to identify changes between the 2012 and 2015 IPC, allowing them to apply theses code requirements to design, plan submittals and/or inspection.

Objectives

Upon completion, participants will be better able to:

- Identify the most significant differences between the 2012 IPC and the 2015 IPC.
- Explain the differences between the current and previous edition.
- Identify changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

Content

Chapters are divided for code development purposes as follows:

2 Definitions	*8 Indirect/Special Wastes*
3 General Regulations	*9 Vents*
4 Fixtures, Faucets and Fixture Fittings	*10 Traps, Interceptors and Separators*
5 Water Heaters	11 Storm Drainage
6 Water Supply and Distribution	13 Gray Water Recycling Systems
7 Sanitary Drainage	

** Italicized items are covered in this handout; not all chapters have significant changes covered in this handout.*

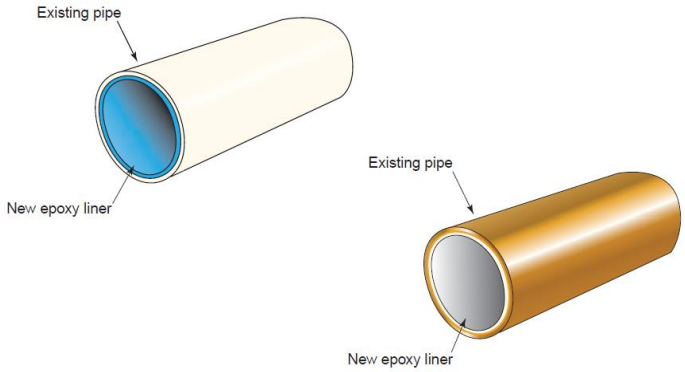
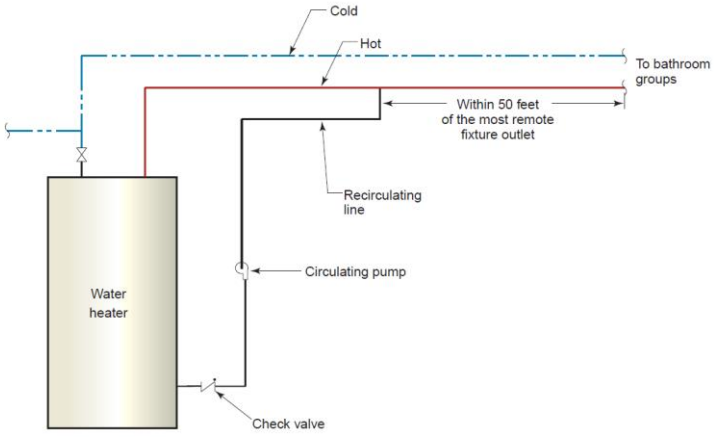
Chapter 2: Definitions			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
202	202	Definitions *(Several definitions have been added to this edition of the OMC, as well as deleting and revising existing definitions.)*	These definitions for a drinking fountain, a water dispenser and a water cooler clarify Section 410 on drinking fountain requirements. The water dispenser definition expands the group of devices and apparatus that can be used as substitutions for 50 percent of the required number of drinking fountains. **Drinking Fountain.** A plumbing fixture that is connected to the potable water distribution system and the drainage system. The fixture allows the user to obtain a drink directly from a stream of flowing water without the use of any accessories.  **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. Such fixture is connected to the potable water distribution system of the premises. This definition also includes a freestanding apparatus for the same purpose that is not connected to the potable water distribution system and that is supplied with potable water from a container, bottle or reservoir. **Water Cooler.** A drinking fountain that incorporates a means of reducing the temperature of the water supplied to it from the potable water distribution system. **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 drinking fountains are required, water water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

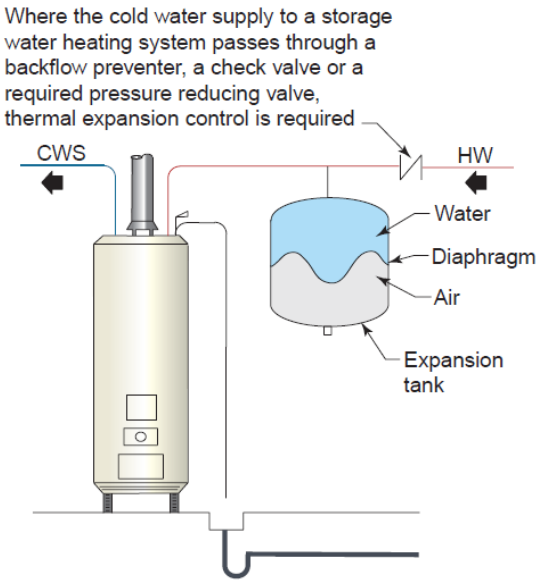
<table>
<tr><th colspan="4">Chapter 3: General Regulations</th></tr>
<tr><th colspan="2">Code Section</th><th rowspan="2">Section Title</th><th rowspan="2">Description of Change</th></tr>
<tr><th>2015</th><th>2012</th></tr>
<tr><td>Table 308.5</td><td>Modified</td><td>Mid-Story Pipe Guide</td><td>Footnote “b” of Table 308.5 in previous editions of the code required a mid-story guide for pipe sizes 2 inches and smaller for some types of pipes. Because the code did not define what a mid-story guide was, there was uncertainty about what was necessary to be installed. The revised language provides the clarification.

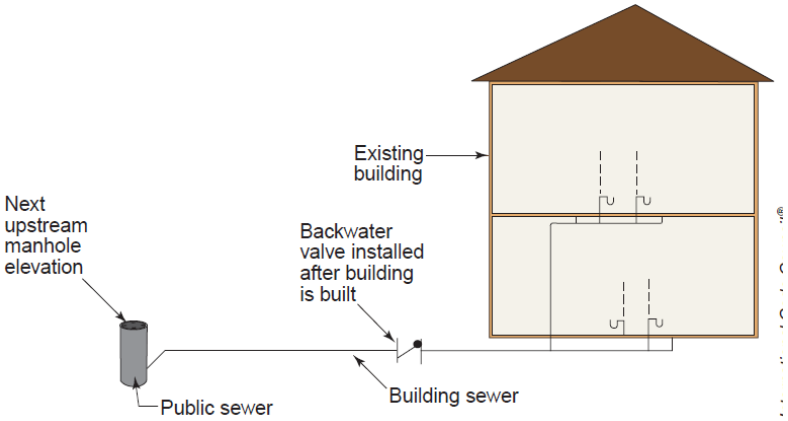
TABLE 308.5
HANGER SPACING
<table><tr><th>PIPING MATERIAL</th><th>MAXIMUM HORIZONTAL SPACING (feet)</th><th>MAXIMUM VERTICAL SPACING (feet)</th></tr><tr><td>Acrylonitrile butadiene styrene (ABS) pipe</td><td>4</td><td>10[b]</td></tr><tr><td>Aluminum tubing</td><td>10</td><td>15</td></tr><tr><td>Brass pipe</td><td>10</td><td>10</td></tr><tr><td>Cast-iron pipe</td><td>5[a]</td><td>15</td></tr><tr><td>Chlorinated polyvinyl chloride (CPVC) pipe and tubing, 1 inch and smaller</td><td>3</td><td>10[b]</td></tr><tr><td>Chlorinated polyvinyl chloride (CPVC) pipe and tubing, 1 1/4 inches and larger</td><td>4</td><td>10[b]</td></tr><tr><td>Copper or copper-alloy pipe</td><td>12</td><td>10</td></tr><tr><td>Copper or copper-alloy tubing, 1 1/4-inch diameter and smaller</td><td>6</td><td>10</td></tr><tr><td>Cross-linked polyethylene (PEX) pipe</td><td>2.67 (32 inches)</td><td>10[b]</td></tr><tr><td>Cross-linked polyethylene/ aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe</td><td>2.67 (32 inches)</td><td>4</td></tr><tr><td>Lead pipe</td><td>Continuous</td><td>4</td></tr><tr><td>Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe</td><td>2.67 (32 inches)</td><td>4</td></tr><tr><td>Polyethylene of raised temperature (PE-RT) pipe</td><td>2.67 (32 inches)</td><td>10[b]</td></tr><tr><td>Polypropylene (PP) pipe or tubing 1 inch and smaller</td><td>2.67 (32 inches)</td><td>10[b]</td></tr><tr><td>Polypropylene (PP) pipe or tubing, 1 1/4 inches and larger</td><td>4</td><td>10[b]</td></tr><tr><td>Polyvinyl chloride (PVC) pipe</td><td>4</td><td>10[b]</td></tr><tr><td>Stainless steel drainage systems</td><td>10</td><td>10[b]</td></tr><tr><td>Steel pipe</td><td>12</td><td>15</td></tr></table>For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.
a. The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10-foot lengths of pipe are installed.
b. For sizes 2 inches and smaller, a guide shall be installed midway between required vertical supports. Such guides shall prevent pipe movement in a direction perpendicular to the axis of the pipe.</td></tr>
</table>

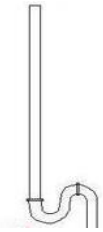
Chapter 4: Fixtures, Faucets and Fixture Fittings			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
403.1	**Modified**	Determining Minimum Number of Plumbing Fixtures	The IBC occupancy classifications (A, B, M, etc.) are no longer used to determine which row in Table 403.1, Minimum Number of Required Plumbing Fixtures, to use for fixture quantities. The actual use of the building or space determines which row in the table to use. 
403.3	**Modified**	Required Public Toilet Facilities Exception	Occupancies that have limited areas for public access, such as dry cleaners, take-out only restaurants and automated teller machine lobbies, do not require public toilet facilities for those limited areas (300 ft^2 or less). 
423.3	**Addition**	Footbaths, Pedicure Baths and Head Shampoo Sinks	 Water-temperature-limiting devices are required for footbaths (integral or not integral to pedicure chairs) and head shampoo sinks.

Chapter 5: Water Heaters			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
501.2.1	**Modified**	Temperature and Pressure Relief Discharge Piping	The temperature and pressure relief valve discharge pipe termination must have an air gap suitable to protect the potable water supply distribution system of the building.
504.7.2	**Modified**	Water Heater Pan Drain Line	In a replacement water heater installation situation, there might not be a nearby drain point for a required pan for the water heater. This code modification allows a pan to not have a drain line if one is not present.

Chapter 6: Water Supply and Distribution			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
603.4.1	**Addition**	Rehabilitation of Piping Systems by Internal Lining	An epoxy lining system standard has been added to the code 
605.2.1	**Addison**	Lead Content of Components Conveying Drinking Water	The code now has a more stringent limitation for lead content in pipe, pipe fittings, joints, valves, faucets and fixture fittings that convey water used for drinking and cooking.
607.2.1	**Modified**	Hot Water Temperature maintenance System Controls	Changes in the commercial portion of the *International Energy Conservation Code* (IECC) caused changes in this IECC-controlled section of the IPC. This section requires temperature maintenance systems (for maintaining hot water temperature near plumbing fixtures) to be automatically turned off when there is not a demand for hot water. The code change also makes it clear that the Section 607.2.1 and its subsection 607.2.1.1 do not apply to Group R2, R3 and R4 occupancies that are 3 stories or less in height above grade plane, because those occupancies are covered by the residential portion of the IECC. 

607.3	**Modified**	Hot water Thermal Expansion Pressure Control	The available method to control closed-system pressure increases caused by the heating of water has been limited to the use of thermal expansion tanks only. 
608.8 608.8.1 608.8.2	**Modified**	Identification of Nonpotable Water	Fixtures such as water closets and urinals that utilize nonpotable water must be identified with words and a symbol indicating that nonpotable water is being used. The color purple is established for identifying distribution piping conveying nonpotable water. 

Chapter 7: Sanitary Drainage			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
705.11.2	**Modified**	Exception for Solvent Cementing PVC Piping 4 inches and smaller	The application of a primer to drain, waste and vent PVC pipe and fittings prior to solvent cementing is not required for 4-inch pipe size and smaller.
708	**Modified**	Cleanouts for Drainage and Waster Systems	 The section on cleanouts has been completely reorganized and reworded for clarity. Brass cleanout plugs are permitted for metallic piping only. Where located at a finished wall, the cleanout must be within 1½ inches of the finished surface. A cleanout is no longer required at the base of each waste or soil stack.
715.1	**Modified**	Exception fro Backwater Valve Installations	Retrofit of a backwater valve in accordance with the code in an existing building is nearly impossible without the new exception. 
717	**Addition**	Replacement of Sewers by Pipe-Bursting Method	Replacement of building sewers by the pipe-bursting method has been used for many decades and is useful especially where excavation of the existing sewer is difficult and costly because of parking lots and other items on the ground surface that would need to be removed and replaced.

Chapter 8: Indirect/Special Waste			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
802.1 802.1.1 802.1.8	**Modified**	Food- Handling Indirect Connection	The section has been clarified to indicate that Section 802.1 and its subsections do not apply to fixtures and equipment in dwelling units. The section was modified to indicate the types of food-handling equipment that Sections 802.1 through 802.1.8 cover.
802.3	**Modified**	Waste Receptors, Hub Drains and Standpipes	 The code has clarified that standpipes are waste receptors. Some limitations for where waste receptors could not be located have been removed. Hub drains now require a strainer.

Chapter 9: Vents			
Code Section		**Section Title**	**Description of Change**
2011	**2007**		
903.1 903.2	**Modified**	Vent Terminations to Outdoors	This change clarifies vent terminations to outdoors where roofs are used for purposes other than weather protection and where very cold weather conditions occur. 

Chapter 10: Traps, Interceptors and Separators			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
102.4 10204.1	**Modified**	Trap Seal Protection against Evaporation	 Trap seal protection against evaporation can now be accomplished in a variety of ways.

2015 IMC Update

The 2012 *International Mechanical Code*® (IMC®) code changes help resolve common interpretation problems and provide clarity of the content. This code has also undergone many technical changes to reflect current design, construction and inspection methods.

The scope of the IMC continues to include the initial design of mechanical systems through the installation and construction phases, and into the maintenance of operating systems. The learner will receive an overview of the most important code changes.

Goal

Participants will be able to use this document to identify key changes from the 2012 IMC to the 2015 IMC, allowing them to apply these code requirements to design, plan review and/or inspection.

Objectives

Upon completion, participants will be better able to:

- Identify the most significant differences between the 2012 IMC and the 2015 IMC.
- Explain the differences between the current and previous edition.
- Identify changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

Content

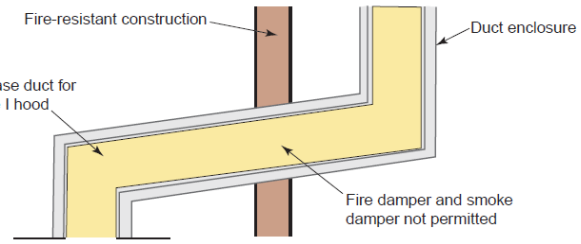
Chapters are divided for code development purposes as follows:

Chapter 2: Definitions	*Chapter 7: Combustion Air*
Chapter 3: General Regulations	Chapter 8: Chimneys and Vents
Chapter 4: Ventilation	Chapter 9: Special Appliances, Fireplaces and Solid Fuel Burning Equipment
Chapter 5: Exhaust Systems	Chapter 11: Refrigeration
Chapter 6: Duct Systems	

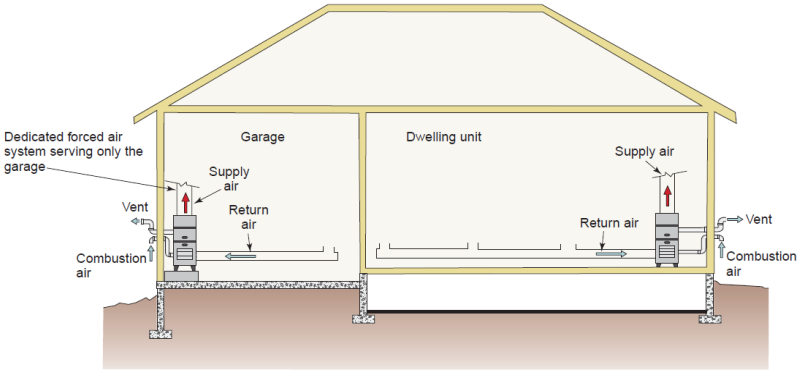
** Italicized items are covered in this handout; not all chapters have significant changes covered in this handout.*

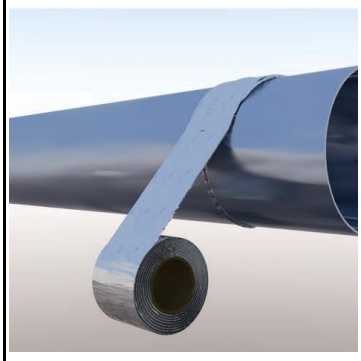
Chapter 3: General Regulations			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
304.11	**Modified**	Fall-Arresting Restraint Systems	The exception allows for fall-arresting restraint systems to be employed instead of guards on roofs.  .

Chapter 4: Ventilation			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
403.3	**Addition**	Outdoor Air Rates	The new text introduces the basic requirements of ASHRAE 62.2 related to mechanical ventilation for Group R-2, R-3 and R-4 buildings three stories or less in height.
Table 403.1.1	**Modified**	Manicure and Pedicure Station Exhaust Rate	The revised note h to Table 403.3.1.1 recognizes new Section 502.20 for the design of manicure and pedicure station exhaust systems and also specifies the applicability to both. Note h addresses the relationship between the source capture system exhaust-flow rate and the exhaust-flow rate specified within the table for nail salons.
404.1	**Modified**	Intermittent Operation of Mechanical Systems for Enclosed Parking Systems	 For enclosed parking garages, the ventilation system must operate continuously or must be automatically controlled for intermittent operation utilizing both carbon monoxide and nitrogen dioxide detectors. The option to detect vehicle operation or occupant presence has been deleted.

Chapter 5: Exhaust Systems			
Code Section		**Section Title**	**Description of Change**
2011	**2007**		
504.5 504.8.4.3	**Addition**	Dryer Exhaust Duct Power Ventilators	New text recognizes the use of dryer exhaust duct power ventilators (DEDPVs) for installations that exceed the allowable exhaust duct length for clothes dryers.
504.8.2	**Modified**	Dryer Exhaust Duct Installation	 Instead of prohibiting all duct fasteners such as screws and rivets, the code now limits the penetration of fasteners where installed.
505.3	**Addition**	Domestic Kitchen Exhaust Systems in Multistory Buildings	New text regulates the design and construction of exhaust shafts that serve domestic kitchen exhaust systems in multistory buildings.
506.3.11	**Modified**	Grease Duct Enclosure	The code specifically prohibits the installation of fire and smoke dampers in grease ducts.  grease ducts.
507.1.1	**Modified**	Commercial Kitchen Exhaust Hood System Operation	The requirement for automatic activation of the exhaust system has been revised to provide the intended performance requirements and to clarify that an interlock arrangement is an alternative to automatic hood operation.
507.1.1.1	**Addition**	Heat Sensors for Multiple Commercial Kitchen Hoods	New text prohibits the use of a single sensor mounted in the common ductwork for commercial kitchen hood systems having multiple hoods manifolded together.

508.1.2	**Addition**	Balance for Commercial Kitchen Ventilation Systems	This new section requires that an air balance schedule be submitted with the design plans for commercial kitchen ventilation systems. 

Chapter 6: Duct Systems			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
601.5	**Addition**	Return Air Openings	The often misunderstood provisions in previous editions of the code for return air have been relocated from a section specific to forced-air/warm-air furnaces in Chapter 9 to a more generic section in Chapter 6. The provisions have been clarified and streamlined to capture the desired intent 
602.1	**Clarified**	Plenums Limited to One Fire Area	The revision clarifies that a plenum in a fire area cannot be connected to a plenum in an adjoining fire area by means of transfer ducts or openings, regardless of the presence of fire dampers. 

603.9	**Modified**	Ducts Joints, Seams and Connections	Duct sealant tapes used on sheet-metal ducts must be listed to UL 181B as is required for sealing tapes and mastics for flexible ducts. Snap-lock and button-lock seams are no longer exempt from the sealing requirements.  

Chapter 7: Combustion Air			
Code Section		**Section Title**	**Description of Change**
2011	**2007**		
701.2	**Addition**	Dampered Openings	Where dampers are installed on combustion air openings, the code now requires an interlock with the appliance to prevent operation of the appliance when the damper is closed. Manual dampers are prohibited on combustion air openings. 

The 2015 *International Fuel Gas Code*® (IFGC®) contains all code coverage for fuel-gas-related installations in one convenient document. The IFGC is designed to coordinate with the family of International Codes® (I-Codes), including the *International Mechanical Code*® (IMC®), *International Plumbing Code*® (IPC®), *International Fire Code*® (IFC®) and *International Building Code*® (IBC®). The content of the IFGC is affected by both the International Code Council's (ICC) code development process and the code development process of ANSI Z223.1 (NFGC). The IFGC is produced in cooperation with the American Gas Association (AGA).

Goal

Participants will be able to use this document to identify changes between the 2012 and 2015 IFGC, allowing them to apply theses code requirements to design, plan submittals and/or inspection.

Objectives

Upon completion, participants will be better able to:

- Identify the most significant differences between the 2012 IFGC and the 2015 IFGC.
- Explain the differences between the current and previous edition.
- Identify changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

Content

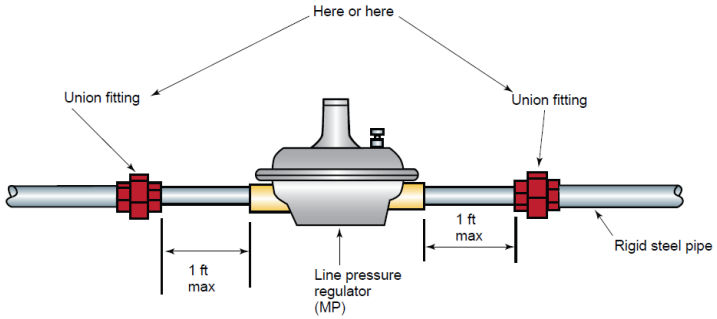
Chapters are divided for code development purposes as follows:

- *Chapter 2: Definitions*
- *Chapter 3: General Regulations*
- *Chapter 4: Gas Piping Installations*
- *Chapter 5: Chimneys and Vents*
- *Chapter 6: Specific Appliances*

** Italicized items are covered in this handout; not all chapters have significant changes covered in this handout.*

Chapter 3: General Regulations			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
307.6	**Addition**	Condensate Pumps	 Condensate pumps located in uninhabitable spaces and used with condensing fuel-fired appliances and cooling equipment must be connected to the appliance or equipment served by the pump to prevent water damage in the event of pump failure.
310.1.1	**Addition**	Electrical Bonding of Corrugated Stainless Steel Tubing	Text has been added to address the allowable length of the bonding jumper wire and the methods of making the bonding connections.

Chapter 4: Gas Piping Insulation			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
404.5	**Clarified**	Fittings in Concealed Locations	This section retains its basic intent, while being completely reorganized to clarify the correct application. Threaded elbows, tees and couplings are now specifically approved for concealed locations as the code always intended. The code now provides the applicable referenced standards for fittings that are listed for concealed locations. 
404.7	**Modified**	Protection of Concealed Piping against Physical Damage	The section on protection of piping has been completely rewritten to address more than just bored holes and notches in structural members. It now addresses piping parallel to framing members and piping within framing members. The new text requires that the protection extend well beyond the edge of members that are bored or notched.

410.2	**Modified**	Medium-Pressure Regulators	Line regulators installed in rigid piping must have a union installed to allow removal of the regulator. 
411.1.1	**Modified**	Connectors for Commercial Cooking Apliances	Specific installation requirements have been added for the safe installation of ANSI Z21.69 connectors for commercial cooking appliances. The options to connect the cooking appliance with semirigid tubing or rigid pipe have been removed. 

Chapter 5: Chimney and Vents			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
502.7.1	**Addition**	Door Clearance to Vent Terminals	Coverage has been added to address the condition where a door could impact or come too close to an appliance vent terminal.
503.8	**Modified**	Venting System Termination Location	Text has been added to address the location of sidewall vent terminals with respect to adjoining buildings. Previous editions of the code were silent on this subject, and the appliance manufacturer's instructions are typically silent as well.

Chapter 6: Specific Appliances			
Code Section		**Section Title**	**Description of Change**
2015	**2012**		
614.5	**Addition**	Dryer Exhaust Duct Power Ventilators	 New text recognizes the use of dryer exhaust duct power ventilators (DEDPVs) for installations that exceed the allowable exhaust duct length for clothes dryers.