

TITLE 748. UNIFORM BUILDING CODE COMMISSION
CHAPTER 20. ADOPTED CODES
SUBCHAPTER 9. NEC® 2011

748:20-9-1. Adoption of National Electrical Code®, 2011 Edition (NEC® 2011)

The Oklahoma Uniform Building Code Commission (the Commission) hereby adopts the National Electrical Code®, 2011 Edition - NFPA 70®, as amended and modified in this subchapter as the minimum code for commercial electrical construction in the State of Oklahoma pursuant to 59 O.S. § 1000.23.

748:20-9-2. Effect of Adoption

The National Electrical Code®, 2011 Edition - NFPA 70® (NEC® 2011), as amended and revised by these rules, is hereby established and adopted as the statewide minimum standard for commercial electrical construction in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

748:20-9-3. NEC® 2011 Informative Annexes

- (a) None of the informative annexes of the NEC® 2011 have been adopted by the Commission for inclusion in the minimum standards for commercial electrical construction in the State of Oklahoma.
- (b) Informative Annexes A through I are not adopted as the minimum standards for commercial electrical construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said annexes in accordance with 59 O.S. § 1000.29.

748:20-9-4. NEC® 2011 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the NEC® 2011 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for commercial electrical construction within the State of Oklahoma pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

748:20-9-5. Participation in Federal Programs and/or Federally Funded or Financed Projects

In order to maximize federal financial aid, assistance, participation, financing and/or funding in any public project(s) and/or federal financial aid, participation, funding for and participation in any federal program(s) by the State of Oklahoma, its agencies, public trusts and instrumentalities, or by any Oklahoma municipalities and other political subdivisions, that receive financial aid, assistance, participation, financing and/or funding for and participate in any federal program(s), the State of Oklahoma, its agencies and instrumentalities, and any Oklahoma municipalities and other political subdivisions, may cooperate with the United States Government and any agency or instrumentality thereof, in the manner authorized and provided by federal law and regulation and in doing so may perform all necessary functions and take all necessary actions for accomplishing such federal purposes and programs, including but not limited to, following and/or complying with federal laws, regulations and/or requirements arising from or related to federal financial aid, assistance, participation, financing and/or funding, in the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, improvement, expansion, operation, maintenance, removal, and demolition of buildings and structures or any appurtenances attached to such buildings or structures, notwithstanding any provisions of any and all uniform building codes and standards adopted by the Oklahoma Uniform Building Code Commission to the contrary.

748:20-9-6. NEC® 2011 Article 90 Introduction

Article 90 the Oklahoma adopted NEC® 2011, includes the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the National Electrical Code®, 2011 Edition (NEC® 2011) as amended and revised by the Commission, as the minimum standards to be used by all entities for commercial electrical construction in jurisdictions throughout the State of Oklahoma. However, the Commission's adoption of Article 90 "Introduction" of the NEC® 2011 is for continuity purposes and the Commission's adoption of Article 90 recognizes the methods of best practice in fully implementing the minimum standards for commercial electrical construction.

(2) All provisions of the adopted NEC® 2011, including Article 90, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for commercial electrical construction in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Article 90 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission's adoption of Article 90 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions. Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with "Introduction" provisions similar to Article 90 of the adopted NEC® 2011.

(4) This limited adoption of Article 90 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Article 90 must be supported by Oklahoma law. Code administration and enforcement jurisdictions shall not use the Commission's limited adoption of Article 90 to circumvent the remainder of the requirements established by the Oklahoma adopted NEC® 2011 and the Commission will strongly oppose any such practice.

748:20-9-7. NEC® 2011 Chapter 5 Special Occupancies

Chapter 5 is adopted with modifications as follows:

(1) Section 505.7 (A) Implementation of zone classification system. This section has been modified to require a registered professional engineer to engineer and design, and select the equipment and wiring methods for classification areas. It allows for the installation of the equipment, wiring methods and inspections to be performed by qualified persons. This section has been modified to read: Classification of areas, engineering and design, selection of equipment and wiring methods shall be performed by a Registered Professional Engineer with expertise in Hazardous (Classified) Locations and Zone Systems. The installation of equipment and wiring methods, and inspections shall be performed by qualified persons.

(2) Section 506.6 (A) Implementation of zone classification system. This section has been modified to require a registered professional engineer to engineer and design, and select the equipment and wiring methods for classification areas. It allows for the installation of the equipment, wiring methods and inspections to be performed by qualified persons. This section has been modified to read: Classification of areas, engineering and design, selection of equipment and wiring methods, shall be performed by a Registered Professional Engineer with expertise in Hazardous (Classified) Locations and Zone Systems. The installation of equipment and wiring methods and inspection shall be performed by qualified persons.

SUBCHAPTER 11. IFGC® 2009

748:20-11-1. Adoption of International Fuel Gas Code®, 2009 Edition (IFGC® 2009)

The Oklahoma Uniform Building Code Commission (the Commission) hereby adopts the International Fuel Gas Code®, 2009 Edition as amended and modified in this subchapter as the minimum code for commercial fuel gas construction in the State of Oklahoma pursuant to 59 O.S. 1000.23.

748:20-11-2. Effect of Adoption

The International Fuel Gas Code®, 2009 Edition (IFGC® 2009), as amended and revised by these rules, are hereby established and adopted as the statewide minimum standards for commercial fuel gas construction in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

748:20-11-3. IFGC® 2009 Appendices

- (a) None of the appendices of the IFGC® 2009 have been adopted by the Commission for inclusion in the minimum standards for commercial fuel gas commercial construction in the State of Oklahoma.
- (b) Appendices A through D are not adopted as the minimum standards for commercial fuel gas construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said appendices in accordance with 59 O.S. § 1000.29.

748:20-11-4. IFGC® 2009 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the IFGC® 2009 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for commercial fuel gas construction within the State of Oklahoma pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

748:20-11-5. Participation in Federal Programs and/or Federally Funded or Financed Projects

In order to maximize federal financial aid, assistance, participation, financing and/or funding in any public project(s) and/or federal financial aid, participation, funding for and participation in any federal program(s) by the State of Oklahoma, its agencies, public trusts and instrumentalities, or by any Oklahoma municipalities and other political subdivisions, that receive financial aid, assistance, participation, financing and/or funding for and participate in any federal program(s), the State of Oklahoma, its agencies and instrumentalities, and any Oklahoma municipalities and other political subdivisions, may cooperate with the United States Government and any agency or instrumentality thereof, in the manner authorized and provided by federal law and regulation and in doing so may perform all necessary functions and take all necessary actions for accomplishing such federal purposes and programs, including but not limited to, following and/or complying with federal laws, regulations and/or requirements arising from or related to federal financial aid, assistance, participation, financing and/or funding, in the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, improvement, expansion, operation, maintenance, removal, and demolition of buildings and structures or any appurtenances attached to such buildings or structures, notwithstanding any provisions of any and all uniform building codes and standards adopted by the Oklahoma Uniform Building Code Commission to the contrary.

748:20-11-6. IFGC® 2009 Chapter 1 Scope and Administration

Chapter 1 the Oklahoma adopted IFGC® 2009, includes the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the International Fuel Gas Code®, 2009 Edition (IFGC® 2009) as amended and revised by the Commission, as the minimum standards to be used by all entities for commercial fuel gas construction in jurisdictions throughout the State of Oklahoma. However, the Commission's adoption of Chapter 1 "Scope and Administration" of the IFGC® 2009 is for continuity purposes and the Commission's adoption of Chapter 1 recognizes the methods of best practice in fully implementing the minimum standards for commercial fuel gas construction.

(2) All provisions of the adopted IFGC® 2009, including Chapter 1, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for commercial fuel gas construction in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Chapter 1 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission's adoption of Chapter 1 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions. Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with "Scope and Administration" provisions similar to Chapter 1 of the adopted IFGC® 2009

(4) This limited adoption of Chapter 1 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Chapter 1 must be supported by Oklahoma law. Code administration and enforcement jurisdictions shall not use the Commission's limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IFGC® 2009 and the Commission will strongly oppose any such practice.

748:20-11-7. IFGC® Chapter 3 General Regulations

Chapter 3 of the IFGC® 2009 is adopted with the following modifications:

(1) Section 307.2.1 Condensate drains. This section has been added to the code to require condensate drains to be protected from freezing. This section shall read: Where condensing appliances are in locations subject to freezing conditions, the condensate drain line must be protected from freezing in an approved manner and in accordance with manufacturer installation instructions.

(2) Section 308.1 Scope. This section has been modified to include gypsum board as a combustibile material. This section has been modified to read: This section shall govern the reduction in required clearances to combustibile materials, including gypsum board, and combustibile assemblies for chimneys, vents, appliances, devices and equipment. Clearance requirements for air-conditioning equipment and central heating boilers and furnaces shall comply with Section 308.3 and 308.4.

(3) Section 310.1.1 CSST. This section has been modified to add an exception to allow for installation when using new special CSST. This exception shall read: Exception: Special corrugated stainless steel gas products or systems that have been designed, manufactured and listed for installation without direct bonding shall be permitted to be installed in accordance with the manufacturer's installation instructions.

748:20-11-8 IFGC® Chapter 4 Gas Piping Installations

Chapter 4 of the IFGC® 2009 is adopted with the following modifications:

(1) Tables 402.4(6), 402.4(7), 402.4(8), 402.4(9), 402.4(10), 402.4(11), and 402.4(12). These tables have been stricken from the code.

(2) Section 404.8.1 Insulated union on building riser. This section has been added to the code as a means to isolate the gas piping from the grounding. It shall read: All underground gas piping systems shall have an insulated union installed above ground level before the service enters the building.

(3) Section 404.10. Minimum burial depth. This section has been modified to change the minimum burial depth from 12 inches (305 mm) to 18 inches (457 mm) and to allow for an exception when there is no ability to meet that minimum depth. This section has been modified to read: Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade, except as provided for in Section 404.10.1. Exception: Where a minimum depth of 18 inches (457 mm) of cover cannot be provided, the pipe shall be installed in conduit or bridged (shielded).

(4) Section 404.10.2. Separation of gas piping from other piping systems. This section has been added to the code as a means to prevent damage to other systems that may have been buried in the same ditch. This section shall read: Gas pipe and any other piping systems shall be separated by 18 inches (457 mm) of undisturbed or compacted earth.

(5) Section 404.16 Prohibited devices. This section was modified to add a second exception to allow for new technology to be utilized. The second exception shall read: An approved fitting or device where the gas piping system has been sized to accommodate the pressure drop of the fitting or device.

(6) The International Code Council Emergency Amendment dated September 27, 2010 has been adopted. This amendment replaces in its entirety Sections 406.7 through Section 406.7.3 of the IFGC®. These sections shall now read:

(i) Section 406.7 Purging: The purging of piping shall be in accordance with Sections 406.7.1 through 406.7.3

(ii) Section 406.7.1 Piping systems required to be purged outdoors. The purging of piping systems shall be in accordance with the provisions of Sections 406.7.1.1 through 406.7.1.4 where the piping system meets either of the following:

(I) The design operating gas pressure is greater than 2 psig (13.79 kPa).

(II) The piping being purged contains one or more sections of pipe or tubing meeting the size and length criteria of Table 406.7.1.1

(iii) Section 406.7.1.1 Removal from service. Where existing gas piping is opened, the section that is opened shall be isolated from the gas supply and the line pressure vented in accordance with Section 406.7.1.3. Where gas piping meeting the criteria of Table 406.7.1.1 is removed from service, the residual fuel gas in the piping shall be displaced with an inert gas.

(iv) Table 406.7.1.1 Size and length of piping. The following measurements for table 406.7.1.1 were added. Footnote "a" in relation to Nominal Pipe Size (inches) states CSST EHD size of 62 is equivalent to nominal 2-inch pipe or tubing size.

(I) When nominal pipe size (inches) is greater than or equal to 2 ½ but less than 3, the length of piping (feet) is greater than 50.

(II) When nominal pipe size (inches) is greater than or equal to 3 but less than 4, the length of piping (feet) is greater than 30.

(III) When nominal pipe size (inches) is greater than or equal to 4 but less than 6, the length of piping (feet) is greater than 15.

(IV) When nominal pipe size (inches) is greater than or equal to 6 but less than 8, the length of piping (feet) is greater than 10.

(V) When nominal pipe size (inches) is greater than 8, the length of piping (feet) is any length. For SI: 1 inch is equal to 25.4 mm; 1 foot is equal to 304.8 mm.

(v) Section 406.7.1.2 Placing in operation. Where gas piping contains air and meeting the criteria of Table 406.7.1.1 is placed in operation, the air in the piping shall first be displaced with an inert gas. The inert gas shall then be displaced with fuel gas in accordance with Section 406.7.1.3.

(vi) Section 406.7.1.3. Outdoor discharge of purged gases. The open end of a piping system being pressure vented or purged shall discharge directly to an outdoor location. Purging operations shall comply with all of the following requirements:

(I) The point of discharge shall be controlled with a shutoff valve.

(II) The point of discharge shall be located at least 10 feet (3048 mm) from sources of ignition, at least 10 feet (3048 mm) from building openings and at least 25 feet (7620 mm) from mechanical air intake openings.

(III) During discharge, the open point of discharge shall be continuously attended and monitored with a combustion gas indicator that complies with Section 406.7.1.4.

(IV) Purging operations introducing fuel gas shall be stopped when 90 percent fuel gas by volume is detected within the pipe.

(V) Persons not involved in the purging operations shall be evacuated from all areas within 10 feet (3048 mm) of point of discharge.

(vii) Section 406.7.1.4. Combustion gas indicator. Combustion gas indicators shall be listed and shall be calibrated in accordance with the manufacturer's instructions. Combustion gas indicators shall numerically display a volume scale from zero percent to 100 percent in 1 percent or smaller increments.

(viii) Section 406.7.2 Piping systems allowed to be purged indoors or outdoors. The purging of piping systems shall be in accordance with the provisions of Section 406.7.2.1 where the piping system meets both of the following:

(I) The design operating gas pressure is 2 psig (13.79 kPa) or less.

(II) The piping being purged is constructed entirely from pipe or tubing not meeting the size and length criteria of Table 406.7.1.1

(ix) Section 406.7.2.1 Purging Procedure. The piping system shall be purged in accordance with one or more of the following:

(I) The piping shall be purged with fuel gas and shall discharge to the outdoors.

(II) The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through an appliance burner not located in a combustion chamber. Such burner shall be provided with a continuous source of ignition.

(III) The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through a burner that has a continuous source of ignition and that is designed for such purpose.

(IV) The piping shall be purged with fuel gas that is discharged to the indoor or outdoors, and the point of discharge shall be monitored with a listed combustible gas detector in accordance with Section 406.7.2.2. Purging shall be stopped when fuel gas is detected.

(V) The piping shall be purged by the gas supplier in accordance with written procedures.

(x) Section 406.7.2.2 Combustible gas detector. Combustible gas detectors shall be listed and shall be calibrated or tested in accordance with the manufacturer's instructions. Combustible gas detectors shall be capable of indicating the presence of fuel gas.

(xi) Section 406.7.3 Purging appliances and equipment. After the piping system has been placed in operation, appliances and equipment shall be purged before being placed into operation.

(7) Section 410.4 Excess flow valve. This section has been added to allow for new technologies in use in the field. This section shall read: Where automatic excess flow valves are installed, they shall be listed for the application and shall be sized and installed in accordance with the manufacturer's instructions.

748:20-11-9 IFGC® Chapter 6 Specific Appliances

Chapter 6 of the IFGC® 2009 is adopted with the following modifications: Section 621.4 Prohibited locations. This section has been modified to provide definitions for Groups A, E and I. This section has been modified to read: Unvented room heaters shall not be installed within occupancies in Groups A, E, and I. The location of unvented room heaters shall also comply with Section 303.3 (Use Groups A = Assembly, E = Educational and I = Institutional).

748:20-11-10 IFGC® Chapter 8 Referenced Standards

Chapter 8 of the IFGC® 2009 is adopted with the following modifications:

(1) The reference to the International Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IBC-09 International Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(2) The reference to the International Energy Conservation Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma by the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission". This section has been modified to read: IECC-06 International Energy Conservation Code® as adopted and modified by the State of Oklahoma through the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission.

(3) The reference to the International Fire Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IFC-09 International Fire Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(4) The reference to the International Mechanical Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IMC-09 International Mechanical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(5) The reference to the International Plumbing Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IPC-09 International Plumbing Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(6) The reference to the International Residential Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IRC-09 International Residential Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(7) The referenced standard for NFPA 70® National Electrical Code® has been modified to change the edition year from 2008 to 2011 and add after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section shall now read: 70-11 National Electrical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

SUBCHAPTER 13. IMC ®2009

748:20-13-1. Adoption of International Mechanical Code®, 2009 Edition (IMC® 2009)

The Oklahoma Uniform Building Code Commission (the Commission) hereby adopts the International Mechanical Code®, 2009 Edition as amended and modified in this subchapter as the minimum code for commercial mechanical construction in the State of Oklahoma pursuant to 59 O.S. 1000.23.

748:20-13-2. Effect of Adoption

The International Mechanical Code®, 2009 Edition (IMC® 2009), as amended and revised by these rules, are hereby established and adopted as the statewide minimum standards for commercial mechanical construction in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

748:20-13-3. IMC® 2009 Appendices

(a) None of the appendices of the IMC® 2009 have been adopted by the Commission for inclusion in the

minimum standards for commercial mechanical construction in the State of Oklahoma.

(b) Appendices A through B are not adopted as the minimum standards for commercial mechanical construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said appendices in accordance with 59 O.S. § 1000.29.

748:20-13-4. IMC® 2009 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the IMC® 2009 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for commercial mechanical construction within the State of Oklahoma pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

748:20-13-5. Participation in Federal Programs and/or Federally Funded or Financed Projects

In order to maximize federal financial aid, assistance, participation, financing and/or funding in any public project(s) and/or federal financial aid, participation, funding for and participation in any federal program(s) by the State of Oklahoma, its agencies, public trusts and instrumentalities, or by any Oklahoma municipalities and other political subdivisions, that receive financial aid, assistance, participation, financing and/or funding for and participate in any federal program(s), the State of Oklahoma, its agencies and instrumentalities, and any Oklahoma municipalities and other political subdivisions, may cooperate with the United States Government and any agency or instrumentality thereof, in the manner authorized and provided by federal law and regulation and in doing so may perform all necessary functions and take all necessary actions for accomplishing such federal purposes and programs, including but not limited to, following and/or complying with federal laws, regulations and/or requirements arising from or related to federal financial aid, assistance, participation, financing and/or funding, in the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, improvement, expansion, operation, maintenance, removal, and demolition of buildings and structures or any appurtenances attached to such buildings or structures, notwithstanding any provisions of any and all uniform building codes and standards adopted by the Oklahoma Uniform Building Code Commission to the contrary.

748:20-13-6. IMC® 2009 Chapter 1 Scope and Administration

Chapter 1 the Oklahoma adopted IMC® 2009, includes the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the International Mechanical Code®, 2009 Edition (IMC® 2009) as amended and revised by the Commission, as the minimum standards to be used by all entities for commercial mechanical construction in jurisdictions throughout the State of Oklahoma. However, the Commission's adoption of Chapter 1 "Scope and Administration" of the IMC® 2009 is for continuity purposes and the Commission's adoption of Chapter 1 recognizes the methods of best practice in fully implementing the minimum standards for commercial mechanical construction.

(2) All provisions of the adopted IMC® 2009, including Chapter 1, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for commercial mechanical construction in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Chapter 1 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission's adoption of Chapter 1 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions.

Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with "Scope and Administration" provisions similar to Chapter 1 of the adopted IMC® 2009

(4) This limited adoption of Chapter 1 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Chapter 1 must be supported by Oklahoma law. Code administration and enforcement jurisdictions shall not use the Commission's limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IMC® 2009 and the Commission will strongly oppose any such practice.

748:20-13-7 IMC 2009® Chapter 2 Definitions

Chapter 2 of the IMC® 2009 is adopted with the following changes: The definition of a Commercial Cooking Appliance has been modified to further define a commercial cooking appliance. The definition has been modified to read: Appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke or odors that are required to be removed through a local ventilation system. Such appliances include deep fat fryers; upright broilers; griddles; broilers; steam-jacketed kettles; hot-top ranges; under-fired broilers (charbroilers); ovens; barbeques; rotisseries; and similar appliances. For the purpose of this definition, a food service establishment shall include any building or a portion thereof used for the preparation and serving of food that is not a kitchen in a single-family dwelling unit or apartment.

748:20-13-8 IMC 2009® Chapter 3 General Regulations

Chapter 3 of the IMC® 2009 is adopted with the following modifications:

(1) Section 301.12 Wind resistance. This section has been modified to allow design and installation of equipment and appliances that are exposed to wind to be built in accordance with SMACNA HVAC Duct Construction Standards – Metal or Flexible or other approved methods. This section has been modified to read: 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, or other approved methods.

(2) Section 304.11 Guards. This section has been modified to require guards around components requiring routine service and unprotected skylight openings. This section has been modified to read: Guards or parapet walls shall be provided where appliances, equipment, fans (or other components that require routine service) or roof hatches are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the adjacent surface or grade below. The guards or parapet walls shall extend not less than 30 inches (762 mm) beyond each end of such appliances, equipment, fans, components, and roof hatch openings; and the top of the guard or parapet wall shall be located not less than 42 inches (1067 mm) above the adjacent surface. Guards shall be constructed to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards as specified in the International Building Code®. Guards shall also be provided where appliances, equipment, fans (or other components that require routine service) are located within 10 feet (3048 mm) of a roof hatch or unprotected skylight. Skylights shall be considered protected if the level of the lowest edge of the skylight is on a raised curb 42 inches (1067 mm) above the roof level, or if the skylight is protected by some other approved means to prevent personnel from falling through the opening.

748:20-13-9 IMC 2009® Chapter 5 Exhaust Systems

Chapter 5 of the IMC® 2009 has been adopted with the following modifications:

(1) Section 507.1 General. This section has been modified to add Section 507.9 to exception number one. This section shall now read: Commercial kitchen exhaust hoods shall comply with the

requirements of this section. Hoods shall be Type I or II and shall be designed to capture and confine cooking vapors and residues. Commercial kitchen exhaust hood systems shall operate during the cooking operation. Exceptions:

(i) Factory-built commercial exhaust hoods which are tested in accordance with UL 710 listed, labeled and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.4, 507.7, 507.9, 507.11, 507.12, 507.13, 507.14 and 507.15.

(ii) Factory-built commercial cooking recirculating systems which are tested in accordance with UL 710B, listed, labeled, and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.4, 507.5, 507.7, 507.12, 507.13, 507.14, and 507.15. Spaces in which such systems are located shall be considered to be kitchens and shall be ventilated in accordance with Table 403.3. For the purpose of determining the floor area required to be ventilated, each individual appliance shall be considered as occupying not less than 100 square feet (9.3 meters squared).

(iii) Net exhaust volumes for hoods shall be permitted to be reduced during part-load cooking conditions, where engineered or listed multispeed or variable-speed controls automatically operate the exhaust system to maintain capture and removal of cooking effluents as required by this section. Reduced volumes shall not be below that required to maintain capture and removal of effluents from the idle cooking appliances that are operating in standby mode.

(2) Section 507.2.1 Type I hoods. This section has been modified to add an exception for installation of Type II hoods when specific conditions are met. This section has been modified to read: Type I hoods shall be installed where cooking appliances produce grease or smoke. Type I hoods shall be installed over medium-duty, heavy-duty, and extra-heavy-duty cooking appliances. Type I hoods shall be installed over light-duty cooking appliances that produce grease or smoke. Exception: Type II hoods shall be permitted to be installed over medium-duty cooking appliances, ranges and ovens that the code official has determined will not produce appreciable amounts of grease and/or smoke. Where cooking appliances, ranges and/or ovens have been approved by the code official for installation under a Type II hood, a sign shall be placed on the wall in close proximity to the hood that reads, "Absolutely No Frying or Grease-Type Cooking Permitted."

748:20-13-10 IMC® 2009 Chapter 6 Duct Systems

Chapter 6 of the IMC® 2009 has been adopted with the following modifications:

(1) Section 603.4 Metallic ducts. The exception to this section has been stricken.

(2) Section 604.1 General. This section was modified to add a requirement to duct insulation to conform to SMACNA HVAC Duct Construction Standards – Metal and Flexible. This section has been modified to read: 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.

748:20-13-11 IMC® 2009 Chapter 15 Referenced Standards

Chapter 15 of the IMC® 2009 is adopted with the following modifications:

(1) The reference to the International Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IBC-09 International Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(2) The reference to the International Existing Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IEBC-09 International Existing Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(3) The reference to the International Energy Conservation Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma by the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission". This section has

been modified to read: IECC-06 International Energy Conservation Code® as adopted and modified by the State of Oklahoma through the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission.

(4) The reference to the International Fire Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IMC-09 International Fire Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(5) The reference to the International Fuel Gas Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IFGC-09 International Fuel Gas Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(6) The reference to the International Plumbing Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission. This section has been modified to read: IPC-09 International Plumbing Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(7) The reference to the International Residential Code® 2009 has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IRC-09 International Residential Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(8) The referenced standard for NFPA 70® National Electrical Code® has been modified to change the edition year from 2008 to 2011 and include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section shall now read: 70-11 National Electrical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

SUBCHAPTER 15. IPC® 2009

748:20-15-1. Adoption of International Plumbing Code®, 2009 Edition (IPC® 2009)

The Oklahoma Uniform Building Code Commission (the Commission) hereby adopts the International Plumbing Code®, 2009 Edition as amended and modified in this subchapter as the minimum code for commercial plumbing construction in the State of Oklahoma pursuant to 59 O.S. 1000.23.

748:20-15-2. Effect of Adoption

The International Plumbing Code®, 2009 Edition (IPC® 2009), as amended and revised by these rules, are hereby established and adopted as the statewide minimum standards for commercial plumbing construction in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

748:20-15-3. IPC® 2009 Appendices

(a) None of the appendices of the IPC® 2009 have been adopted by the Commission for inclusion in the minimum standards for commercial plumbing construction in the State of Oklahoma.

(b) Appendices A through G are not adopted as the minimum standards for commercial plumbing construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said appendices in accordance with 59 O.S. § 1000.29.

748:20-15-4. IPC® 2009 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the IPC® 2009 not specifically

addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for commercial plumbing construction within the State of Oklahoma pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

748:20-15-5. Participation in Federal Programs and/or Federally Funded or Financed Projects

In order to maximize federal financial aid, assistance, participation, financing and/or funding in any public project(s) and/or federal financial aid, participation, funding for and participation in any federal program(s) by the State of Oklahoma, its agencies, public trusts and instrumentalities, or by any Oklahoma municipalities and other political subdivisions, that receive financial aid, assistance, participation, financing and/or funding for and participate in any federal program(s), the State of Oklahoma, its agencies and instrumentalities, and any Oklahoma municipalities and other political subdivisions, may cooperate with the United States Government and any agency or instrumentality thereof, in the manner authorized and provided by federal law and regulation and in doing so may perform all necessary functions and take all necessary actions for accomplishing such federal purposes and programs, including but not limited to, following and/or complying with federal laws, regulations and/or requirements arising from or related to federal financial aid, assistance, participation, financing and/or funding, in the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, improvement, expansion, operation, maintenance, removal, and demolition of buildings and structures or any appurtenances attached to such buildings or structures, notwithstanding any provisions of any and all uniform building codes and standards adopted by the Oklahoma Uniform Building Code Commission to the contrary.

748:20-15-6. IPC® 2009 Chapter 1 Scope and Administration

Chapter 1 the Oklahoma adopted IPC® 2009, includes the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the International Plumbing Code®, 2009 Edition (IPC® 2009) as amended and revised by the Commission, as the minimum standards to be used by all entities for commercial plumbing construction in jurisdictions throughout the State of Oklahoma. However, the Commission's adoption of Chapter 1 "Scope and Administration" of the IPC® 2009 is for continuity purposes and the Commission's adoption of Chapter 1 recognizes the methods of best practice in fully implementing the minimum standards for commercial plumbing construction.

(2) All provisions of the adopted IPC® 2009, including Chapter 1, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for commercial plumbing construction in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Chapter 1 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission's adoption of Chapter 1 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions. Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with "Scope and Administration" provisions similar to Chapter 1 of the adopted IPC® 2009

(4) This limited adoption of Chapter 1 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Chapter 1 must be supported by Oklahoma law. Code

administration and enforcement jurisdictions shall not use the Commission's limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IPC® 2009 and the Commission will strongly oppose any such practice.

748:20-15-7 IPC 2009® Chapter 2 Definitions

Chapter 2 of the IPC® 2009 is adopted with the following modifications: The definition of a Grease Interceptor has been modified to delete the original definition and add definitions for hydromechanical and gravity grease interceptors. This section has been modified to read:

(1) Hydromechanical. Plumbing appurtenances that are installed in the sanitary drainage system to intercept free-floating fats, oils, and grease from waste water discharge. Continuous separation is accomplished by air entrainment, buoyancy and interior baffling.

(2) Gravity. Plumbing appurtenances of not less than 500 gallons (1893 L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from waste water discharge. Separation is accomplished by gravity during a retention time of not less than 30 minutes.

748:20-15-8 IPC® 2009 Chapter 3 General Regulations

Chapter 3 of the IPC® 2009 is adopted with the following modifications:

(1) Section 305.6.1 Sewer depth. This section has been modified to include a depth for the septic tank connection unless otherwise approved by the authority having jurisdiction. This section has been modified to read: Building sewers that connect to private sewage disposal systems shall be 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 a minimum of 12 inches (305 mm) below grade.

(2) Section 312.1 Required tests. This section has been modified to allow the authority having jurisdiction to determine if the tests will be done using water or air and if a final test of the entire system will be required. This section has been modified to read: The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.10 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The equipment, material, power and labor necessary for the inspection and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. All plumbing system piping shall be tested with either water or, for piping systems other than plastic, by air as approved. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests when required by the authority having jurisdiction. The code official shall require the removal of any cleanouts if necessary to ascertain whether the pressure has reached all parts of the system.

(3) Section 312.2 Drainage and vent water test. This section has been modified to allow the authority having jurisdiction to specify the test may be done with less than a 10 foot (3048 mm) head of water. This section has been modified to read: 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) head of water or as required. In testing successive sections, at least the upper 10 feet (3048 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) of the system, shall have been submitted to a test of less than a 10-foot (3048 mm) head of water or as required. This pressure shall be held for at least 15 minutes. The system shall then be tight at all points.

(4) Section 312.3 Drainage air test. This section has been modified to remove the words "and vent" to the section title.

(5) Section 312.4 Drainage and vent final test. This section has been modified to allow the authority having jurisdiction to determine if the test is required. It has been modified to read: The final test of the completed drainage and vent systems where required shall be visual and in sufficient detail to

determine compliance with the provisions of this code. Where a smoke test is utilized, it shall be made by filling all traps with water and then introducing into the entire system a pungent, thick smoke produced by one or more smoke machines. When the smoke appears to stack openings on the roof, the stack openings shall be closed a pressure equivalent to a 1-inch water column (248.8 Pa) shall be held for a test period of not less than 15 minutes.

(6) Section 312.5 Water supply system test. This section has been modified to allow the authority having jurisdiction to determine another approved system for testing. This section has been modified to read: Upon completion of a section of or the entire water supply system, or portion completed, shall be tested and proved tight under a water pressure not less than the working pressure of the system; or, for piping systems other than plastic or as approved, by an air test of not less than 50 psi (344 kPa). This pressure shall be held for at least 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 107.

(7) 312.6 Gravity sewer test. This section has been modified to allow the authority having jurisdiction to determine if this test is required. This section has been modified to read: 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) head of water and maintaining such pressure for 15 minutes.

(8) 312.9 Shower liner test. This section has been modified to allow the authority having jurisdiction to determine if this test is required. This section has been modified to read: Where shower floors and receptors are made water-tight by the application of materials required by Section 417.5.2, the completed liner installation, where required by the authority having jurisdiction, shall be tested. The pipe from the shower drain shall be plugged water tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches (51 mm) measured at the threshold. Where a threshold of at least 2 inches (51 mm) high does not exist, a temporary threshold shall be constructed to retain the test water in the lined floor or receptor area to a level not less than 2 inches (51 mm) deep measured at the threshold. The water shall be retained for a test period of not less than 15 minutes, and there shall not be evidence of leakage.

(9) Section 314.1 General. This section has been modified to delete the original section and add a requirement to reference the International Mechanical Code for work with condensate disposal. This section has been modified to read: Condensate disposal shall be in accordance with the International Mechanical Code.

(10) Section 314.2 Evaporators and cooling coils. This section has been stricken from the code.

(11) Section 314.2.1 Condensate disposal. This section has been stricken from the code.

(12) Section 314.2.2 Drain pipe materials and sizes. This section has been stricken from the code.

(13) Table 314.2.2 Condensate drain sizing. This table has been stricken from the code.

(14) Section 314.2.3 Auxiliary and secondary drain system. This section has been stricken from the code.

(15) Section 314.2.3.1 Water-level monitoring devices. This section has been stricken from the code.

(16) Section 314.2.3.2 Appliance, equipment and insulation in pans. This section has been stricken from the code.

(17) Section 314.2.4 Traps. This section has been stricken from the code.

748:20-15-9 IPC® 2009 Chapter 4 Fixtures, Faucets and Fixture Fittings

Chapter 4 of the IPC® 2009 is adopted with the following modifications:

(1) Table 403.1 Minimum number of required plumbing fixtures. This table has been modified to include a footnote "g" in the Other column of the table at the end of the service sink requirement to number 2 (classification of business), and number 6 (classification of mercantile). The footnote "g" shall read: For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.

(2) Section 403.2 Separate facilities. This section was modified to change the maximum occupant load in exception three from 50 to 100. This section shall now read: Where plumbing fixtures are required, separate facilities shall be provided for each sex. Exception:

(i) Separate facilities shall not be required for dwelling units and sleeping units.

(ii) Separate facilities shall not be required in structures or tenant spaces with a total occupancy load, including both employees and customers, of 15 or less.

(iii) Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.

(3) Section 403.3.1.1 Toilet room ingress and egress. This section was added to the code to restrict toilet rooms from opening directly into a room used for the preparation of food for service to the public. This section shall read: Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

(4) Section 405.8 Slip joint connections. This section has been modified to allow installation of slip joints anywhere between the fixture and trap outlet. It has been modified to read: Slip joints shall be made with an approved elastomeric gasket and shall be installed from fixture outlet to trap outlet seal. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space 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.

(5) Section 417.5.2.6 Liquid type, trowel applied, load bearing, bonded water proof materials. This section has been added to allow for new technology in the market. This section shall read: Liquid type, trowel applied, load bearing, bonded waterproof materials shall meet the requirements of ANSI A118.10 and shall be applied in accordance with the manufacturer's installation instructions.

748:20-15-10 IPC® 2009 Chapter 5 Water Heaters

Chapter 5 of the IPC® 2009 is adopted with the following modifications:

(1) Section 504.4.1 Installation. This section has been modified to provide for pressure relief on storage tanks that have an ability to heat water. This section has been modified to read: Such valves shall be installed in the shell of the water heater tank. Temperature relief valves shall be so located in the tank as to be actuated by the water in the top 6 inches (152 mm) of the tank served. For installations with separate storage tanks, the approved, self-closing (levered) pressure relief valve and the temperature relief valve or combination thereof conforming to ANSI Z21.22 valves shall be installed on both the storage water heater and storage tank. There shall not be a check valve or shutoff valve between a relief valve and the heater or tank served.

(2) Section 504.6 Requirements for discharge piping. This section has been modified to include an additional requirement where discharging to outdoor areas subject to freezing. This section has been modified to read: The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

(i) Not be directly connected to the drainage system.

(ii) Discharge through an air gap located in the same room as the water heater.

(iii) Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.

(iv) Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

(v) Discharge to the floor, to the pan serving the water heater or storage tank, to a waste receptor or to the outdoors.

(vi) Discharge in a manner that does not cause personal injury or structural damage.

(vii) Discharge to a termination point that is readily observable by the building occupants.

(viii) Not be trapped.

(ix) Be installed so as to flow by gravity.

(x) Not terminate more than 6 inches (152 mm) above the floor or waste receptor.

(xi) Not have a threaded connection at the end of such piping.

(xii)Not have valves or tee fittings.

(xiii)Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1

(xiv)Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area.

748:20-15-11 IPC® 2009 Chapter 6 Water Supply and Distribution

Chapter 6 of the IPC® 2009 is adopted with the following modifications:

(1) Section 605.3 Water service pipe. This section has been modified to require piping materials not third-party certified for water distribution to terminate a minimum of 30 inches outside the structure. This section has been modified to read: Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed Table 605.3. All water service pipe or tubing, installed underground and outside of the structure, shall have a minimum working pressure rating of 160 pounds per square inch (1100 kPa) at 73.4 degrees Fahrenheit (23 degrees Celsius). Where the water pressure exceeds 160 pounds per square inch, (1100 kPa), piping materials shall have a minimum rated working pressure equal to the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate a minimum of 30 inches (762 mm) outside the structure at or before the full open valve located at the entrance to the structure. All ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

(2) Section 606.1 Location of full-open valves. This section has been modified to delete a requirement to install full open-valves on the discharge side of every water meter. This section has been modified to read: Full open-valves shall be installed in the following locations:

(i) On the building water service pipe from the public water supply near the curb.

(ii) On the water distribution supply pipe at the entrance into the structure.

(iii) On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one-and two-family residential occupancies.

(iv) On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.

(v) On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.

(vi) On the water supply pipe to a gravity or pressurized water tank.

(vii) On the water supply pipe to every water heater.

(3) Section 607.1.1 Temperature limiting means. This section was added to restrict a thermostat control for a water heater to serve as the temperature limiting means for the purpose of complying with the requirements of the code for maximum allowable hot or tempered water delivery temperatures at fixtures. This section shall read: A thermostat control for a water heater shall not serve as the temperature-limiting means for the purposes of complying with the requirements of this code for maximum allowable hot or tempered water delivery temperatures at fixtures.

(4) Section 608.16.5 Connections to lawn irrigation systems. This section has been modified to add a spill resistant backflow preventer as an option for protection. This section has been modified to read: The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a spill resistant backflow preventer or a reduced pressure principle backflow preventer. 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 principle backflow preventer.

748:20-15-12 IPC® 2009 Chapter 7 Sanitary Drainage

Chapter 7 of the IPC® 2009 is adopted with the following modifications:

(1) Section 707.1 Prohibited joints. This section has been modified to include an exception for saddle-type fittings to be used for connecting a building sewer to a public sewer. This section has been modified to read: The following types of joints and connections shall be prohibited:

(i) Cement or concrete joints.

(ii) Mastic or hot-pour bituminous joints.

(iii) Joints made with fittings not approved for the specific installation.

(iv) Joints between different diameter pipes and made with elastomeric rolling O-rings.

(v) Solvent-cement joints between different types of plastic pipe.

(iv) Saddle type fittings. Exception: Saddle-type fittings may be used to connect the building sewer to a public sewer.

(2) Section 715.1 Sewage backflow. This section has been modified by striking the requirements of plumbing fixtures having flood level rims above the elevation of the next upstream manhole cover in the public sewer system. It has been modified to read: Where plumbing fixtures are installed on a floor with a finished floor elevation below the elevation of the manhole cover of the next upstream manhole in the public sewer, the fixtures shall be protected by a backwater valve installed in the building drain or horizontal branch servicing such fixtures.

748:20-15-13 IPC® 2009 Chapter 8 Indirect/Special Waste

Chapter 8 of the IPC® 2009 is adopted with the following modification: Section 802.1.8 Food utensils, dishes, pots and pans sinks. This section was modified to remove the option for a direct connection to the drainage system. This section has been modified to read: Sinks used for the washing, rinsing or sanitizing of utensils, dishes, pots, pans or serviceware used in the preparation, serving or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.

748:20-15-14 IPC® 2009 Chapter 9 Vents

Chapter 9 of the IPC® 2009 is adopted with the following modification: Section 904.1 Roof extension. This section has been modified to specify the number of inches where the open vent pipes that extend through the roof shall be terminated. This section has been modified to read: All open vent pipes that extend through a roof shall be terminated at least 6 inches (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

748:20-15-15 IPC® 2009 Chapter 10 Traps, Interceptors, and Separators

Chapter 10 of the IPC ®2009 is adopted with the following modifications:

(1) Section 1002.4 Trap seals. This section has been modified to allow for new technology to be utilized for installation when approved by the authority having jurisdiction. This section has been modified to read: Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve or other approved trap seal device shall be installed. Trap seal primer valves shall connect to the trap at a point above the level of the trap seal. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

(2) Section 1003.3.1 Grease interceptors and automatic grease removal devices required. This section has been modified to allow for installation of grease interceptors on or above the floor when there is a lack of space or other constraints that prevent the installation of a replacement grease interceptor. This section has been modified to read: A grease interceptor or automatic grease removal device shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, prerinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained; automatic hood washing units and dishwashers without prerinse sinks. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Where

lack of space or other constraints prevent the installation or replacement of a grease interceptor, one or more grease interceptors shall be permitted to be installed on or above the floor.

(3) Section 1003.3.4 Hydromechanical grease interceptors and automatic grease removal devices. This section has been modified to reference only hydromechanical grease interceptors provide standards for hydromechanical grease interceptors and removes the exception to locate grease interceptors over 500 gallons outdoors. This section has been modified to read: Hydromechanical grease interceptors and automatic grease removal devices shall be sized in accordance with ASME A112.14.3 Appendix A, or ASME A112.14.4, CSA B481.3, or PDI G101. Hydromechanical grease interceptors and automatic grease removal devices shall be designed and tested in accordance with ASME 112.14.3 or ASME 112.14.4, CSA B481.1, PDI G101 or PDI G102. Hydromechanical grease interceptors and automatic grease removal devices shall be installed in accordance with the manufacturer's instructions. Where manufacturer's instructions are not provided, hydromechanical grease interceptors and grease removal devices shall be installed in compliance with ASME A112.14.3, ASME A112.14.4, CSA B481.3 or PDI G101. This section shall not apply to gravity grease interceptors.

748:20-15-16 IPC® 2009 Chapter 11 Storm Drainage

Chapter 11 of the IPC® 2009 is adopted with the following modification: Section 1107.3 Sizing of secondary drains. This section has been modified to include the use of scuppers or increase the sizing of secondary drains to accommodate rainfalls of 10.2 inches per hour for a 5-minute duration and includes minimum design loads. This section has been modified to read: Secondary (emergency) roof drain systems or scuppers shall be sized in accordance with Section 1106 based on a rainfall rate of 10.2 inches per hour for a 5-minute duration. In sizing secondary roof drain systems using Tables 1106.2, 1106.3 and 1106.6, the Horizontally Projected Roof Area shall be determined by dividing the Horizontally Projected Roof Area for 1-inch rain fall per hour rate by 10.2 inches per hour. Secondary roof scuppers shall be designed in accordance with ASCE/SEI 7-05 Minimum Design Loads for Buildings and Other Structures, Chapter 8 C8-RAIN LOADS published by the American Society of Civil Engineers and Structural Engineering Institute. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system or scuppers.

748:20-15-17 IPC® 2009 Chapter 13 Referenced Standards

Chapter 13 of the IPC® 2009 is adopted with the following modifications:

(1) The standard ASCE/SEI 7-05 Minimum Design Loads for Buildings and Other Structures, C8-RAIN LOADS, published by the American Society of Civil Engineers and Structural Engineering Institute has been added to the chapter.

(2) The reference to the International Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission. This section has been modified to read: IBC-09 International Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(3) The reference to the International Existing Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IEBC-09 International Existing Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(4) The reference to the International Energy Conservation Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission". This section has been modified to read: IECC-06 International Energy Conservation Code® as adopted and modified by the State of Oklahoma through the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission.

(5) The reference to the International Fire Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IMC-09 International Fire Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(6) The reference to the International Fuel Gas Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IFGC-09 International Fuel Gas Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(7) The reference to the International Mechanical Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IPC-09 International Mechanical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(8) The reference to the International Residential Code® 2009 has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IRC-09 International Residential Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(9) The referenced standard for NFPA 70® National Electrical Code® has been modified to change the edition year from 2008 to 2011 and include the words after the title "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section shall now read: 70-11 National Electrical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.