



OKLAHOMA UNIFORM BUILDING CODE COMMISSION RULES

748 - Uniform Building Code Commission Adopted Codes

International Mechanical Code®, 2015 Edition, (IMC®, 2015)
748:20-13-1 through 748:20-13-11

NOTICES:

1. Section headers within this document marked "Revoked" do not revoke the current chapter associated with this revocation language. This language simply means the modifications made in a previous adoption have been "revoked" and the language reverts to the published content of the currently adopted code without amendment.
2. Through its rulemaking process, the OUBCC has adopted the first printing of the 2015 edition of the International Mechanical Code® (IMC®, 2015), which has been promulgated as a permanent rule pursuant to Oklahoma law at OAC 748:20-13-1. Errata found and corrected by the ICC®, if any, in a printing of the code other than the specific printing listed previously in this notice, has not been reviewed or approved by any OUBCC technical committee, adopted by the OUBCC itself, or promulgated as a permanent rule by the OUBCC pursuant to Oklahoma law.
3. The rules of the Oklahoma Uniform Building Code found on this website are **unofficial**. The official rules are published in The Oklahoma Administrative Code and The Oklahoma Register, as required by 75 O.S. § 250 et seq. To order an official copy of these rules, contact the Office of Administrative Rules at: (405) 521-4911.

CHAPTER 20 - ADOPTED CODES

[Authority: 59 O.S. 59 § 1000.23]

[Source: Codified 7-15-11]

SUBCHAPTER 13 - IMC® 2015

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-1. Adoption of International Mechanical Code®, 2015 Edition (IMC® 2015)

(a) The Oklahoma Uniform Building Code Commission (the "OUBCC") hereby adopts the International Mechanical Code®, 2015 Edition (IMC® 2015) as amended and modified in this subchapter as the statewide minimum code for commercial mechanical construction in the State of Oklahoma pursuant to 59 O.S. 1000.23. (b) The OUBCC through formal action expressly chose to adopt the IMC® 2015 as amended and modified in this subchapter, as the statewide minimum code for commercial mechanical construction in the State of Oklahoma. In like manner, the OUBCC through formal action expressly chose not to adopt the International Mechanical Code®, 2012 Edition (IMC®, 2012) for any purpose.

(c) This material contains information which is proprietary to and copyrighted by the International Code Council, Inc. The acronym "ICC" and the ICC logo are trademarks and service marks of ICC. ALL RIGHTS RESERVED.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15, Amended at 34 Ok Reg 2107, eff 9-15-17]

748:20-13-2. Effect of Adoption

The IMC® 2015 as amended and revised by these rules, is hereby established and adopted as the statewide minimum code 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 OUBCC as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-3. IMC® 2015 Appendices

(a) None of the appendices of the IMC® 2015 have been adopted by the OUBCC for inclusion in the statewide minimum code for commercial mechanical construction in the State of Oklahoma.

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

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-4. IMC® 2015 Provisions Adopted and Modified

(a) All chapters and provisions within chapters, including exceptions, of the IMC® 2015 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the statewide minimum code 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.

(b) To the extent any references in the IMC® 2015 as amended and modified in this sub-chapter are made to any other code or standard, the particular edition for that reference is defined in the referenced standards found in the IMC®, 2015 as amended and modified in this sub-chapter and in Chapter 15 entitled "Referenced Standards."

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

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 OUBCC to the contrary.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-6. IMC® 2015 Chapter 1 Scope and Administration

Chapter 1 of the Oklahoma adopted IMC® 2015, includes the following Preamble at the very beginning of the chapter:

- (1) Pursuant to 59 O.S. § 1000.23, the OUBCC has adopted the IMC® 2015 as amended and revised by the OUBCC, as the statewide minimum code to be used by all entities for commercial mechanical construction in jurisdictions throughout the State of Oklahoma. However, the OUBCC's adoption of Chapter 1 "Scope and Administration" of the IMC® 2015 is for continuity purposes and the OUBCC's adoption of Chapter 1 recognizes the methods of best practice in fully implementing the statewide minimum code for commercial mechanical construction.
- (2) All provisions of the adopted IMC® 2015, including Chapter 1, as amended and revised by the OUBCC, are hereby established and adopted as the statewide minimum code 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 OUBCC 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) Section 106.1.1 Annual permit. This section has been modified to clarify what an annual permit is. This section shall read: 106.1.1 An annual permit is a yearly permit which represents a group of individual permits for each alteration to an already approved electrical, gas, mechanical or plumbing installation. The building official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.
- (4) Section 106.1.2 Annual permit records. This section has been modified to require the building official to collect the OUBCC permit fee for each individual permit that is part of the annual permit at the completion of the annual permit term. This section has been modified to read: 106.1.2 Annual permit records. The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The building official shall have access to such detailed records of alterations at all times. At the completion of the entity's annual permit term, the applicant shall file such detailed records of alterations with the building official. Pursuant to the authority of 59 O.S. § 1000.25, the building official shall collect fees for each individual permit which is part of the annual permit once the detailed records are submitted and remit such fees to the OUBCC.
- (5) The OUBCC'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 OUBCC 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® 2015.
- (6) 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 OUBCC's limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IMC® 2015 and the OUBCC will strongly oppose any such practice.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-7. IMC 2009 ® Chapter 2 Definitions [REVOKE]

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Revoked at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-8. IMC® 2015 Chapter 3 General Regulations

Chapter 3 of the IMC® 2015 is adopted with the following modifications:

(1) Section 301.15 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 and Flexible or other approved methods. This section has been modified to read: 301.15 Wind resistance. Mechanical equipment, appliances and supports that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with the International Building Code®, SMACNA HVAC Duct Construction Standards - Metal and Flexible, and other approved methods.

(2) Section 304.11 Guards. This section has been modified to clarify the circumstances under which guards shall be provided around components and to modify the exception to require the authority having jurisdiction approve the use of a fall/restraint system instead of guards. This section has been modified to read: 304.11 Guards. Guards shall be provided where various components that require service relocated on a roof or elevated structure and have a condition as set forth in Sections 304.11.1 through 304.11.3. The top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards as specified in the International Building Code®. Guards shall be provided at new components when added or replaced on an existing roof or elevated structure and have a condition as set forth in Sections 304.11.1 through 304.11.3. Exception: When approved by the authority having jurisdiction, guards are not required where permanent fall arrest/restraint anchorage connector devices that comply with ANSI/ASSE Z 359.1 are affixed for use during the entire roof covering lifetime. The devices shall be reevaluated for possible replacement when the entire roof covering is replaced. The devices shall be placed not more than 10 feet (3048 mm) on center along hip and ridge lines and placed not less than 10 feet (3048 mm) from roof edges and the open sides of walking surfaces.

(3) Section 304.11.1 Roof edge. This section has been added to clarify the circumstances required to exist for the installation of guards at the roof edge when the components needed service are within a specific distance of the roof edge. This section has been added to read: 304.11.1 Roof edge. Guards complying with 304.11 shall be provided when components are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface or elevated structure and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of the component that requires service.

(4) Section 304.11.2 Skylights. This section has been added to clarify the circumstances for the installation of guards around components near skylights and to provide exceptions to the requirement. This section has been added to read: 304.11.2 Skylights. Guards complying with Section 304.11 shall be provided when a skylight is within 10 feet (3048 mm) of the component that requires service. The guard shall extend 30 inches (762 mm) beyond the edge of the skylight. Exceptions:

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

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

(5) Section 304.11.3 Roof hatch. This section has been added to clarify the circumstances for the installation of guards around components installed within a specific distance from the roof hatch. This section has been added to read: 304.11.3 Roof hatch. Guards complying with Section 304.11 shall be

provided when a roof hatch is within 10 feet (3048 mm) of the component that requires service. The guard shall extend 30 inches (762 mm) beyond the edge of the roof hatch. If the component is within 10 feet (3048 mm) of the ladder access side of the roof hatch, the guard shall incorporate a self-closing, self-latching gate. The gate shall have a top edge of not less than 42 inches (1067 mm) above the elevated surface adjacent to the gate and shall not allow the passage of a 21 inch (533 mm) sphere. If a roof hatch exists within 10 feet of a roof edge that is located more than 30 inches (762 mm) above the floor, roof or grade below and a new component that requires services on that existing roof or elevated structure, than a guard complying with Section 304.11 shall be added between the existing roof hatch and the roof edge.

(6) Section 305.5.1 Location and protection of refrigerant piping. This section has been added to provide protection for refrigerant piping installed within 1 1/2 inches (38 mm) of the underside of roof decks. This section shall read: 305.5.1 Location and protection of refrigerant piping. Refrigerant piping installed within 1 1/2 inches (38 mm) of the underside of roof decks shall be protected from damage caused by nails and other fasteners.

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

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

- (i) The side railing shall extend above the parapet or roof edge not less than 30 inches (762 mm).
- (ii) Ladders shall have rung spacing not to exceed 14 inches (356 mm) on center. The uppermost rung shall not be greater than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
- (iii) Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.
- (iv) There shall be not less than 18 inches (457 mm) between rails.
- (v) Rungs shall have a diameter not less than 0.75-inch (19 mm) and be capable of withstanding a 300-pound (136.1 kg) load.
- (vi) Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488.2 kg divided by meters squared). Landing dimensions shall be not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.
- (vii) Climbing clearance. The distance from the centerline of rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs except where cages or wells are installed.
- (viii) Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.
- (ix) Ladders shall be protected against corrosion by an approved means.
- (x) Access to ladders shall be provided at all times.

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

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

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

(9) Section 307.2.3.1 Water-level monitoring devices. This section was modified to add an exception for when the section shall not apply. This section has been modified to read: 307.2.3.1 Water-level monitoring devices. On down-flow units and all other coils that do not have a secondary drain or provisions to install a secondary or auxiliary drain pan, a water-level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Devices installed in the drain line shall not be permitted. Exception: This section shall not apply to appliances installed in areas outside on the ground or elevated structure where condensate overflow does not damage building components or contents.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-9. IMC® 2015 Chapter 5 Exhaust Systems

Chapter 5 of the IMC® 2015 has been adopted with the following modifications:

(1) Section [F] 502.15 Repair garages. This section has been modified to require compliance with Section 2311.4.3 of the International Fire Code® when designing basement or pit ventilation. This section has been modified to read: [F] 502.15 Repair garages. Where Class I liquids or LP-gas are stored or used within a building having a basement or pit wherein flammable vapors could accumulate, the basement or pit shall be provided with ventilation designed in accordance with Section 2311.4.3 of the International Fire Code® to prevent the accumulation of flammable vapors therein.

(2) Section [F] 502.16.1 Design. This section has been modified to clarify exhaust outlets should be located within 18 inches (475 mm) of the high point of the room on exterior walls or the roof and to change the ventilation rate from not less than 1 cubic foot per minute per 12 cubic feet of room volume to 1 cubic foot per square foot of room area. This section has been modified to read: [F] 502.16.1 Design.

(A) Indoor locations shall be ventilated utilizing air supply inlets and exhaust outlets arranged to provide uniform air movement to the extent practical. Inlets shall be uniformly arranged on exterior walls near floor level. Outlets shall be located within 18 inches (457 mm) of the high point of the room in exterior walls or the roof.

(B) Ventilation shall be by a continuous mechanical ventilation system or by a mechanical ventilation system activated by a continuously monitoring natural gas detection system, or for hydrogen, a continuously monitoring flammable gas detection system, each activating at a gas concentration of not more than 25 percent of the lower flammable limit (LFL). In all cases, the system shall shut down the fueling system in the event of failure of the ventilation system.

(C) The ventilation rate shall not be less than 1 cubic foot per minute per square foot [0.0051 cubic meters per (second square meter)] of room area.

(3) Section 506.3.1.1 Grease duct materials. This section has been added to clarify the language between the code and NFPA® 96 regarding the type of steel to be utilized. This section has been modified to read: 506.3.1.1 Grease duct materials. Grease ducts serving Type I hoods shall be constructed of non-galvanized carbon steel having a minimum thickness of 0.0575 inch (1.463 mm) (No. 16 gage) or stainless steel not less than 0.0450 inch (1.14 mm) (No. 18 gage) in thickness. Exception: Factory-built commercial kitchen grease ducts listed and labeled in accordance with UL 1978 and installed in accordance with Section 304.1.

(4) Section 507.2. Type I hoods. This section has been modified to add an additional 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 as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty, and extra-heavy-duty cooking appliances. Exceptions:

- (A) A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg per cubic meter when tested at an exhaust flow rate of 500 cfm (0.236 cubic meters per second) in accordance with UL 710B.
- (B) In non-commercial cooking occupancies a residential or Type II hood can be installed over a medium-duty residential appliance when approved.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15, Amended at 34 Ok Reg 2107, eff 9-15-17]

748:20-13-10. IMC® 2015 Chapter 6 Duct Systems

Chapter 6 of the IMC® 2015 has been adopted with the following modification: 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: 604.1 General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13, the International Energy Conservation Code® and SMACNA HVAC Duct Construction Standards – Metal and Flexible.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-10.1. IMC® 2015 Chapter 11 Refrigeration

Chapter 11 of the IMC® 2015 has been adopted with the following modification: Section 1102.3 Access port protection. This section has been stricken from the code.

[Source: Added at 32 Ok Reg 2270, eff 11-1-15]

748:20-13-11. IMC® 2015 Chapter 15 Referenced Standards

Chapter 15 of the IMC® 2015 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 OUBCC." This section has been modified to read: IBC®-15 International Building Code® as adopted and modified by the State of Oklahoma through the OUBCC.
- (2) The reference to the International Energy Conservation Code® has been modified to change the edition year to 2006. This section has been modified to read: IECC®-06 International Energy Conservation Code®.
- (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 OUBCC." This section has been modified to read: IFC®-15 International Fire Code® as adopted and modified by the State of Oklahoma through the OUBCC.
- (4) 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 OUBCC." This section has been modified to read: IFGC®-15 International Fuel Gas Code® as adopted and modified by the State of Oklahoma through the OUBCC.
- (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 OUBCC." This section has been modified to read: IPC®-15 International Plumbing Code® as adopted and modified by the State of Oklahoma through the OUBCC.
- (6) 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 OUBCC." This section has been modified to read: IRC®-15 International Residential Code® as adopted and modified by the State of Oklahoma through the OUBCC.
- (7) The referenced standard for NFPA® 70 National Electrical Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the OUBCC." This section shall now read: 70-14 National Electrical Code® as adopted and modified by the State of Oklahoma through the OUBCC.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12, Amended at 32 Ok Reg 2270, eff 11-1-15, Amended at 34 Ok Reg 2107, eff 9-15-17]