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ORDINANCE NO. 23436

AN ORDINANCE AMENDING TITLE 59, TULSA REVISED ORDINANCES, THE MECHANICAL CODE OF THE CITY OF TULSA, OKLAHOMA, BY ADOPTING CHAPTERS ONE, TWO AND THREE OF THE INTERNATIONAL MECHANICAL CODE, 2015 EDITION, INCLUDING STATIONARY ENGINEERS AND THE INTERNATIONAL FUEL GAS CODE, 2015 EDITION, AMENDING, ADDING OR DELETING PROVISIONS THEREOF, AS PROVIDED HEREIN; REPEALING ALL OTHER ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING FOR SEVERABILITY; AND DECLARING AN EMERGENCY.

BE IT ORDAINED BY THE CITY OF TULSA:

Section 1. That Title 59, Tulsa Revised Ordinances, be and the same is hereby amended to read as follows:

"TITLE 59

MECHANICAL CODE

CHAPTER 1. ICC INTERNATIONAL MECHANICAL CODE, 2015 EDITION

SECTION 100. ADOPTION OF THE ICC INTERNATIONAL MECHANICAL CODE, 2015 EDITION

A certain document, three (3) copies of which are on file in the Office of the City Clerk of the City of Tulsa, Oklahoma, being marked and designated as the *ICC International Mechanical Code*, 2015 Edition, as published by the International Code Council (ICC), is hereby adopted as a part of the Tulsa Revised Ordinances, hereinafter the "Mechanical Code," for the design, installation, alteration and inspections of mechanical systems serving buildings and structures except detached one- and two-family dwellings and townhouses not more than three (3) stories above grade plane in height with a separate means of egress and whose accessory structures shall comply with Tulsa Revised Ordinances, Title 51 Chapter 2. Each and all of the terms, conditions,

regulations, provisions, and penalties of the *ICC International Mechanical Code*, 2015 Edition, are hereby referred to, adopted and made a part of the Tulsa Revised Ordinances as if fully set out in this title, with amendments, if any, as prescribed in Section 101 of this chapter and, as used in this Chapter 1, may be referred to as the "code."

SECTION 101. Amendments to the ICC International Mechanical Code, 2015 Edition

The following provisions of the *ICC International Mechanical Code*, 2015 Edition, are hereby added, deleted, or amended to read as follows:

Chapter 1 – Administration

Section 101.1 Title--Amendatory. This code shall be known as the "Mechanical Code of the City of Tulsa," and may be cited as the "Mechanical Code," or in this title as "this code."

SECTION 103. OFFICE OF MECHANICAL INSPECTION--Amendatory

103.1 Authority Having Jurisdiction-Amendatory. Pursuant to Title 11, Tulsa Revised Ordinances, Chapter 2, the Director of Planning and Development, or the Director's designated representative, as provided by Title 51, Chapter 1, Section 103.2, Tulsa Revised Ordinances, shall direct the administration of the Mechanical Code of the City of Tulsa.

106.1 When Required--Amendatory. A contractor who desires to erect, install, enlarge, alter, repair, remove, convert, or replace a mechanical system, the installation of which is regulated by this code, or to cause such work to be done, shall first make application and obtain the required permit for the work.

Exception. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day.

106.1.1 Annual Permit--Amendatory. An annual permit is a yearly permit which represents a group of individual permits for each alteration to an already existing 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.

106.1.2 Annual permit records--Amendatory. 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.

106.1.3 Tulsa Revised Ordinances, Title 50--Added. Annual permits shall be issued in accordance with Tulsa Revised Ordinances, Title 50.

106.1.4 Air Compressor and Tank Permits--Added. Permits for air compressors and tanks only, excluding piping for air distribution, may be issued to the owner or lessee, or the agent of either, of a building or structure in which the air compressors or tanks are to be installed, or to the contractor employed to perform the work.

106.1.5 Separate Permit Required--Added. A separate permit shall be required for each building within a complex and for each gas meter, when there is a multi-meter installation on a single building.

106.1.6 City Owned Property--Added. Buildings and structures owned by the City of Tulsa which are located inside or outside the corporate limits of the City, shall comply with the requirements of this code and require a permit for mechanical work.

106.3 By Whom Application is Made--Amendatory. No mechanical permit shall be issued to any person, firm, limited liability company, or corporation until such person, firm, limited liability company, or corporation has received a Certificate of Registration appropriate for the work contemplated.

106.5.1 Work Commencing Before Permit Issuance--Amendatory. Any person who commences work on a mechanical system before obtaining the necessary permits shall be subject to penalty fees established in Title 49, Tulsa Revised Ordinances.

106.5.2 Fee Schedule--Amendatory. Permit and inspection fees for all mechanical work shall be in accordance with the schedule established in Title 49, Tulsa Revised Ordinances.

107.3.4 Carbon Monoxide Testing--Added. When tests for carbon monoxide are required, tests shall be performed by an approved testing agency. The test results and other data necessary, shall be furnished to the code official and the code official shall determine conformance with this code.

108.4 Violation Penalties--Amendatory. Any person violating any of the provisions of this code shall be guilty of a misdemeanor offense and, upon conviction thereof, shall be punished by a fine of not more than One Thousand Two Hundred Dollars ($1,200.00), excluding cost, fees, and assessments or by imprisonment in the City Jail for a period not exceeding six (6) months, or by both such fine and imprisonment. Each day or portion of a day that a violation continues shall be deemed a separate offense.

108.7.4 Fine Not Exclusive Penalty--Added. The penalties prescribed in this code shall not be exclusive or prevent independent action by the Board of Appeals as created and provided in Title 51, Chapter 1, Tulsa Revised Ordinances to suspend or revoke the Certificate of Registration of any person subject to this code, and shall not prevent the City of Tulsa, or its authorized officials, from taking other action authorized by law to remedy the violation.

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SECTION 109. MEANS OF APPEAL-Amendatory. Appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this code, shall be made to the Board of Appeals as established by Title 51, Chapter 1, Tulsa Revised Ordinances.

SECTION 111.0. REGISTRATION OF MECHANICAL CONTRACTORS--Added.

111.1 General--Added. No person, firm, limited liability company, or corporation shall be issued a permit, engage or offer to engage in, by advertisement or otherwise, any mechanical work in the City of Tulsa as a contractor unless such person, firm, limited liability company, or corporation has properly registered with the City of Tulsa. All contractors, journeymen, and apprentices shall carry their state license on their person at all times while performing mechanical work within the City of Tulsa and shall display the same upon request from the code official or a police officer of the City of Tulsa. No person issued a contractor's license shall employ or supervise persons performing mechanical work unless those person(s) are licensed or allow any apprentice to perform mechanical work unless the apprentice shall have direct supervision by a properly licensed person.

111.2 Requirements for Registration--Added.

A. **State Licensees.** Any person, firm, limited liability company, or corporation holding a current state of Oklahoma license or registration issued under the provisions of 59 O.S.Supp.2005, §§ 1850.1, *et seq.*, as amended, shall be issued a Certificate of Registration after paying the fees required by this code.

B. **City of Tulsa Licensees.** Any person, firm, or corporation holding a current City of Tulsa License or registration issued under the provisions of this ordinance shall be issued a Certificate of Registration after paying the fees as set forth in Title 49, Tulsa Revised Ordinances.

C. **Boiler Repair Contractor.** No person, firm, limited liability company, or corporation shall be registered as a Boiler Repair Contractor unless he shall have furnished proof of the issuance of a current State Department of Labor Boiler Repair Contractor's License issued under the provisions of the *Oklahoma Boiler and Pressure Vessel Safety Act*, 40 O.S.Supp.2005, §§ 141.1, *et seq.* as amended, and shall have paid the required fees as set forth in Title 49, Tulsa Revised Ordinances.

111.3 Expiration of Registration--Added. Registration of state licensed contractors shall expire on the last day of their birth month of each year. Certificates of Registration, which have not been renewed thirty (30) days after expiration, shall not be renewed until the applicant possesses the state license referenced in Subsection 111.2.A of this code.

111.4 Transfer of Registration Prohibited--Added. Certificates of Registration shall be nontransferable.

111.5 Registration after Revocation--Added. No person, firm, limited liability company, or corporation shall be permitted to obtain a new registration within one (1) year from the date of revocation of any prior registration.

111.6 Identification of Service Vehicles--Added. Every contractor shall identify all service vehicles used in the contractor's business with the company name and contractor's license number. Such letters and numbers shall be not less than two (2) inches in height, shall be of a contrasting color, and shall be placed on both sides of all vehicles.

111.7 Suspension or Revocation of Certificates of Registration--Added. Certificates of Registration may be suspended or revoked by the Board of Appeals as provided in Title 51, Chapter 1, Tulsa Revised Ordinances.

112.0 Exemptions--Added.

A. None of the technical provisions of this code shall apply to internal systems of factory-assembled package units as have been examined and rated by an approved testing laboratory or industry standards association, listed in *ICC International Mechanical Code*, 2015 Edition, Chapter 15, "Referenced Standards," as being suitable for their intended use. Alteration of any portion of such units subsequent to the aforementioned approval shall subject the entire unit to inspections by the code official and such further alteration as he may require to secure compliance with the intent of this code. Factory-assembled "plug-in" appliances are hereby exempted from the provisions of this code. Installation of gas lights or gas grills shall require a permit and the payment of the fee specified for gas-fired appliances to enable the inspector to check the location where installed for compliance with setback and other zoning requirements.

B. The licensing requirements of this code shall not apply to public utilities, public service corporations, rural electric associations or municipal utilities and their subsidiaries doing work on their own facilities or during the performance of energy audits, operational inspections, minor maintenance, or minor repairs on their own equipment.

Chapter 2 - Definitions

202.0 General Definitions--Amendatory.

In addition to the definitions contained in Section 202 of the *ICC International Mechanical Code*, 2015 Edition, the following words and terms shall, for the purposes of this title, have the meanings indicated in this Section 202.0:

Apprentice. Any person engaged in the work of installing, altering, or repairing equipment or apparatus regulated within the City of Tulsa, who is working under the direct personal supervision of a contractor or journeyman and subject to the limitations provided in this code.

Combustible Material. Any material not defined as noncombustible. Materials adjacent to or in contact with heat-producing appliances, vent connectors, gas vents, chimneys, steam and hot water pipes, and warm air ducts made of or surfaced with wood, compressed paper, plant fibers, or other materials that are capable of being ignited and burned. Such material shall be considered combustible even though flame proofed, fire-retardant treated, or plastered.

Installation. The initial physical placement of a system at a given location and the readying of same for use or service.

Maintenance. Wherever in this code any person is authorized to maintain any mechanical equipment, such authority shall be limited to the performance of repairs designed to avoid shut-downs. In regard to any installations incidental to maintaining such equipment in a running condition, such installations shall be confined to the replacement of parts broken, worn or defective, of a nature contained in or upon major units, and shall not permit the operator to install units, compressors, or any major portion of such equipment, nor shall such persons be permitted to perform any work in or upon such equipment which would by reason of the extent of such repairs, in fact, constitute a reinstallation.

Mechanical Equipment and Apparatus. All types of air conditioning, including heating equipment and refrigeration equipment, including but not limited to furnaces, boilers, gas-fired appliances and piping, ventilating apparatus, incinerators, pressure vessels, and all related fittings, vents, duct work, and safety or regulating devices.

Public Occupancy. Public occupancy shall mean open to public use by license or invitation. The term shall not mean:

1. Occupancy by custodial, building maintenance, or security personnel; or

2. Occasional occupancy by employees, tenants, and their invitees after normal working hours.

Chapter 3 – General Regulations

301.15 Wind resistance—Amendatory. 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.

304.11 Guards--Amendatory. Guards shall be provided where various components that require service are located 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 no 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.

304.11.1 Roof edge--Added. 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.

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

304.11.3 Roof hatch—Added. 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, then a guard complying with Section 304.11 shall be added between the existing roof hatch and the roof edge.

305.5.1 Location and protection of refrigerant piping—Added. Refrigerant piping installed within 1 ½ inches (38 mm) of the underside of roof decks shall be protected from damage caused by nails and other fasteners.

306.5 Equipment and appliances on roofs or elevated structures--Amendatory. 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 (457mm) between rails.
(v) Rungs shall have a diameter not less than 0.75-inch (19mm) 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.

307.2.1 Condensate disposal--Amendatory. 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.

307.2.3.1 Water-level monitoring devices--Amendatory. On down-flow units and all other coils that do not have a secondary drain or provisions to install 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.

506.3.1.1 Grease duct materials--Amendatory. 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

507.2 Type I hoods--Amendatory. 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.

604.1 General--Amendatory. 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.

SECTION 1102.3. ACCESS PORT PROTECTION--Amendatory. This section has been stricken from the code.

Chapter 15 Referenced Standards--Amendatory. Chapter 15 of the IMC 2015 is adopted with the following modifications:

IBC®-15 International Building Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IECC®-06 International Energy Conservation Code®
IFC®-15 International Fire Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IMC®-15 International Mechanical Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IPC®-15 International Plumbing Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IRC®-09 International Residential Code® as adopted and modified by the State of Oklahoma through the OUBCC.

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NFPA 70-14 National Electrical Code® as adopted and modified by the State of Oklahoma through OUBCC."

Section 2. That Title 59, Tulsa Revised Ordinances, Chapter 2 be and the same is hereby amended to read as follows:

"CHAPTER 2. STATIONARY ENGINEERS

Section 200. Examination and licensing of stationary engineers and process steam boiler operators

A. **Examination of Stationary Engineers; Qualifications.** The Code Official shall approve all eligible Stationary Engineer and Process Steam Boiler Operator applicants. Examinations shall be appropriate to the license sought and shall reflect the knowledge and experience required to perform the work of the particular class. The examination for Process Steam Boiler Operators shall be limited to questions on the safe operating practices of process steam boilers.

B. **Examination Fees.** Examinations for each class of stationary engineer license shall be prepared by an independent testing agency.

C. **Experience.** Applicants for the following classes of licenses shall have the minimum experience designated for such class of license as follows:

1. **First Class Engineer's License.** All applicants for a First Class Engineer's License shall:

   a. Have at least three (3) years' experience in the operation or assisting in the operation of boilers exceeding 15 psig steam or 160 psig water pressure or 250° water temperature and refrigeration or air conditioning units exceeding 150 tons; or

   b. Be a currently licensed Mechanical Journeyman who has worked for a Mechanical Contractor for at least three (3) consecutive years installing the equipment described in Subsection 200.C.1.a., above; or

   c. Have a First Class Limited License and have served three (3) or more years operating or assisting in the operation of the equipment described in Subsection 200.C.1.a., above.

2. **First Class Limited Engineer's License.** All applicants for a First Class Limited Engineer's License shall have at least one (1) year's experience in the operation or

assisting in the operation of low or high pressure boilers and at least three (3) years' experience in the operation or assisting in the operation of refrigeration or air conditioning units exceeding 150 tons.

3. **Third Class Engineer's License.** All applicants for a Third Class Engineer's License shall have at least one (1) year's experience in the operation or assisting in the operation of low or high pressure boilers.

4. **Steam Special Engineer's License.** All applicants for a Steam Special Engineer's License shall have a least three (3) years' experience in the operation or assisting in the operation of boilers exceeding 15 psig steam or 160 psig water pressure.

5. **Refrigeration Special Engineer's License.** All applicants for a Refrigeration Special Engineer's License shall have at least three (3) years' experience in the operation or assisting in the operation of refrigeration or air conditioning units exceeding 150 tons.

6. **Process Steam Boiler Operator's License.** All applicants for a Process Steam Boiler Operator's License shall pass a written examination, and:

   a. Have a minimum of three (3) months' experience in the operation or assisting in the operation of Process Steam Boilers of over ten (10) horsepower (334,750 BTU/Hour) input; or

   b. Have successfully completed a short course approved by the Code Official on the safe and proper operating practices for high pressure steam process application boilers.

When the operating experience of applicants for the Process Steam Boiler Operator's license is limited to process steam boilers of fifty (50) horsepower (1,673,750 BTU/Hour) input or less and subject to an operating pressure of 150 psig or less, that experience can only be used toward the experience required for a Third Class license. All experience required for any of the aforementioned classes of license defined in this section and so claimed by an applicant for such class of license shall be proven by a notarized certification from former and present employers concerning the examinee's experience and qualifications. Only experience on the equipment itemized in Section 201 of this code shall be considered.

D. **Retesting.** An applicant shall be permitted to retest in accordance with the following:

First Failure:	Two (2) months to retest.
All Failures thereafter:	Four (4) months to retest.

Applicant shall be limited to testing three (3) times per calendar year.

E. **Issuance of Certificates of Competency.** Stationary Engineer applicants and Process Steam Boiler Operator applicants receiving a grade of seventy-five percent (75%) or

higher on a required written examination shall be issued a Certificate of Competency. All Certificates of Competency shall display the date of passage of the examination or, if issued without examination as provided in this chapter, the basis for the applicant's qualification. Such certificates shall be consecutively numbered and the Office of Mechanical Inspection shall keep a record of all certificates issued. Should a certificate be lost or destroyed, a duplicate may be obtained under a new registration number by submitting a signed, written request and payment of a replacement fee in accordance with the fee schedule in Title 49, Tulsa Revised Ordinances. Once replaced, the certificate which was lost or destroyed and its registration number shall be invalid.

F. **Issuance and Renewal of Stationary Engineer and Process Steam Boiler Operator Licenses.** Every holder of a current Stationary Engineer or Process Steam Boiler Operator Certificate of Competency shall be issued an annual license appropriate to such certificate by the Code Official upon payment of a license fee in accordance with the fee schedule in Title 49, Tulsa Revised Ordinances.

G. **Annual License Registration.** All Stationary Engineer and Process Steam Boiler Operator licenses shall expire on December 31 and shall be renewed annually. Failure to renew within thirty (30) days of expiration shall subject the former licensee to a penalty fee in accordance with the fee schedule in Title 49, Tulsa Revised Ordinances, per month, until renewal. When any operator's license has been expired for one (1) year or more, the license holder shall retest in accordance with section 200. E.

H. **Stationary Engineer License and Process Steam Boiler Operator Classifications Established and Work for Which Qualified Defined.** Stationary Engineer and Process Steam Boiler Operator licenses shall be issued to qualified applicants divided into the following categories:

1. **First Class Engineer's License.** Any person holding a First Class Engineer's License shall be qualified to operate and maintain all steam generating boilers, pressure vessels, super heaters, refrigeration plants, and air conditioning units of unlimited tonnage, horsepower, and pressures, and all of their related pumps and apparatus.

2. **First Class Limited Engineer's License.** Any person holding a First Class Limited License shall be qualified to operate and maintain all boilers with an operating temperature of less than 250° F. and subject to a pressure not exceeding 15 psig steam or160 psig water and refrigeration and air conditioning units of unlimited tonnage including all related pumps and apparatus.

3. **Third Class Engineer's License.** Any person holding a Third Class Engineer's License shall be qualified to operate and maintain heating boilers with an operating temperature of less than 250° F. and subject to a pressure not to exceed 15 psig steam or 160 psig water and all related pumps and apparatus.

4. **Steam Special License.** Any person holding a Steam Special License may operate and maintain all boilers, engines, pumps, and related apparatus of unlimited size and pressure.

5. **Refrigeration Special License.** Any person holding a Refrigeration Special License may operate and maintain refrigeration plants and units of unlimited tonnage or horsepower.

6. **Process Steam Boiler Operator.** Any person holding a Process Steam Boiler Operator license may operate high pressure process steam boilers of fifty (50) horsepower (1,673,750 BTU/Hour) input or less and subject to an operating pressure not to exceed 150 psig. Seventy-five percent (75%) of the total boiler capacity must be used for the process system operation.

I. **Display of Certificates and Licenses Required.** Licensees shall keep Certificates of Competency and current licenses displayed at all times in the place where they are employed so that same may be readily seen. In case a copy should be used, it must show the address where the original is displayed.

J. **Revocation and Suspension of Stationary Engineer and Process Steam Boiler Operator Licenses and Certificates of Competency.** Subject to the procedures governing the Board of Appeals as established by Title 51, Chapter 1, Tulsa Revised Ordinances, Stationary Engineer and Process Steam Boiler Operator Certificates of Competency or Stationary Engineer and Process Steam Boiler Operator Licenses may be denied, revoked, suspended, or canceled by the Board for incompetence, gross carelessness in the maintenance or operation of equipment, falsification of a registration document or intoxication while on duty or as otherwise authorized pursuant to Title 51, Chapter 1, Tulsa Revised Ordinances.

K. **Appeals to City Council.** Any person aggrieved by any decision of the Board shall have a right of appeal to the City Council in accordance with the procedures in Title 51, Chapter 1, Tulsa Revised Ordinances.

Section 201. Mechanical equipment requiring licensed operators

A. **Responsibility of Owner and Operator.** It shall be unlawful, a misdemeanor offense, and a violation of this code for any person, firm, limited liability company, corporation, or other legal entity owning or otherwise having control of the following mechanical equipment, to operate or to permit such equipment to be operated by any person who is not a properly licensed Stationary Engineer holding a current license and Certificate of Competency appropriate to the type, size, and pressure of such equipment. It shall further be unlawful and a misdemeanor offense for any person to operate the following equipment unless such person is duly licensed to operate such equipment:

1. All steam boilers of ten (10) horsepower or more, subject to an operating pressure of more than fifteen (15) pounds per square inch;

2. All steam boilers subject to an operating pressure of fifteen (15) pounds per square inch or less and all hot water boilers with an operating temperature exceeding 210° F., or having a capacity of over 3,000,000 BTU input, or aggregate total if manifolded together and located in a single confined space;

3. Any refrigeration and air conditioning units having a capacity of 150 tons, or 150 horsepower, or more. The provisions of this paragraph do not apply to units located outside of an occupied structure; or

4. All refrigeration and air conditioning plants of twenty (20) horsepower, or twenty (20) tons, whichever is greater, using Group 2 and 3 refrigerants as listed in Section 1104.1 of this code. The horsepower and tonnage of all such refrigeration and air conditioning plants shall be determined by aggregating all units greater than ten (10) horsepower or tons.

B. **Periods of Duty Established for Stationary Engineers and Process Steam Boiler Operator Operating Mechanical Equipment Requiring Licensed Operators.** A licensed operator shall personally remain on the premises, except as noted, where any of the mechanical equipment listed in Subsection 201.A of this chapter is in operation in accordance with the periods of duty specified in this section. Periods of operator duty shall be determined by the use and occupancy classification of the building or structure as defined in the *ICC International Building Code 2009* Edition, as amended, within which such equipment is located, as follows:

1. Use Group A, Assembly Buildings	At all times during public occupancy while regulated equipment is in operation;
2. Use Group B, Business Buildings	At all times during public occupancy while regulated equipment is in operation;
3. Use Group E, Educational Buildings	At all times during public occupancy while regulated equipment is in operation;
4. Use Group F, Industrial Buildings	During each shift of work of the occupying industry; **EXCEPTION:** In facilities when the mechanical equipment is being operated by a Process Steam Boiler Operator, the operator shall be on the premises in accordance with Subsection 201.E.
5. Use Group H, High Hazard	At all times while regulated equipment is in operation;

6. Use Group I, Institutional Buildings	At all times while regulated equipment is in operation;
7. Use Group M, Mercantile Buildings	During public occupancy while regulated equipment is in operation;
8. Use Group R, Residential Buildings:	
a. R-1 Structures less than 4 stories	At start-up and shut-down;
b. R-1 Structures of 4 stories or more	At all times while regulated equipment is in operation;
c. R-2 Structures	At start-up and shut-down;
d. R-3 Structures	None;
9. Use Group S, Storage	At start-up and shut-down;
10. Use Group U, Utility and Miscellaneous	The Code Official shall determine which of the above rules shall apply. Such determination shall be based upon the Use Group that the building or structure most nearly resembles.

"Public occupancy" shall mean open to public use by license or invitation. The term shall not mean occupancy by custodial, building maintenance, or security personnel, or occasional occupancy by employees, tenants, and their invitees after normal working hours.

C. **Daily operator log required.** A daily log shall be kept by all operators, showing the date and time each operator arrives on the job, with signature or initials. The log shall be kept in full view with certificate and license.

D. **Use of apprentice operators.** Operators may use assistants who have registered as apprentice operators. An apprentice operator shall not change any settings, make any adjustment, start, stop, work on, or repair equipment except in the presence of and under the direct supervision of a licensed operator. The licensed operator shall be directly responsible for the safe and lawful operation of any equipment where the operator's certificate and license are posted.

E. **Operating procedures for process steam boilers.** Start-up and shut-down procedures shall be posted in the boiler room. The certificate holder shall record in a log the operating conditions of the boiler at a minimum frequency at each day's start-up, at the mid-point of the daily operation and at the shut-down of the process steam boiler. The maximum time period between any two log entries by the certificate holder for a boiler in operation shall be six hours. Each log entry shall include as a minimum the date and time

of the entry, the certificate holder's signature, and a checklist of the status of the safety features of the boiler to include as a minimum the boiler operating pressure and the water level in the sight glass. The low water cut-off shall be cycled a minimum of once each operator's shift, and the pressure relief valve shall be lift tested monthly."

Section 3. That Title 59, Tulsa Revised Ordinances, Chapter 3 be and the same is hereby amended to read as follows:

"CHAPTER 3. ICC INTERNATIONAL FUEL GAS CODE, 2015 EDITION

Section 300 Adoption of the International Fuel Gas Code, 2015 Edition.
Section 301 Amendments to the ICC International Fuel Gas Code 2015.

SECTION 300. ADOPTION OF THE INTERNATIONAL FUEL GAS CODE

A certain document, three (3) copies of which are on file in the office of the City Clerk of the City of Tulsa, Oklahoma, being marked and designated as the *ICC International Fuel Gas Code*, 2015 Edition, as published by the International Code Council, Inc. (ICC), is hereby adopted as an amendment to the Tulsa Revised Ordinances, hereinafter the "Mechanical Code," for the installation of fuel gas piping systems, fuel gas appliances, gaseous hydrogen systems and related accessories serving buildings and structures except detached one- and two-family dwellings and townhouses not more than three (3) stories above grade plane in height with a separate means of egress and whose accessory structures shall comply with Tulsa Revised Ordinances, Title 51 Chapter 2. Each and all of the terms, conditions, regulations, provisions, and penalties of the *ICC International Fuel Gas Code*, 2015 Edition, are hereby referred to, adopted and made a part of the Tulsa Revised Ordinances as if fully set out in this chapter, with its amendments, if any, as prescribed in Section 301 of this chapter and, as used in this Chapter 3, may be referred to as the "code."

SECTION 301. AMENDMENTS TO THE ICC INTERNATIONAL FUEL GAS CODE 2015 EDITION

The following provisions of the *ICC International Fuel Gas Code*, 2015 Edition, are hereby added, deleted, or amended to read as follows:

Chapter 1 - Administration

106.1 When Required-Amendatory. A contractor who desires to erect, install, enlarge, alter, repair, remove, convert, or replace a fuel gas piping system or fuel gas appliance, the installation of which is regulated by this code, or to cause such work to be done, shall first make application and obtain the required permit for the work contemplated.

Exception. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day.

106.1.1 Annual Permit--Amendatory. An annual permit is a yearly permit which represents a group of individual permits for each alteration to an already existing 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.

106.1.2 Annual permit records--Amendatory. 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.

106.1.3 Tulsa Revised Ordinances, Title 50--Added. Annual permits shall comply with Tulsa Revised Ordinances, Title 50.

106.3 Application for permit--Amendatory. No permit shall be issued to any person, firm, limited liability company, or corporation until such person, firm, limited liability company, or corporation has received a Certificate of Registration appropriate for the work contemplated.

106.6.1 Work Commencing Before Permit Issuance--Amendatory. Any person who commences work on a mechanical system before obtaining the necessary permits shall be subject to penalty fees established in Title 49, Tulsa Revised Ordinances.

106.6.2 Fee Schedule--Amendatory. Permit and inspection fees for all work shall be the same as set forth in Chapters 1 and 5 of Title 49, Tulsa Revised Ordinances.

108.4 Violation Penalties--Amendatory. Any person violating any of the provisions of this code shall be guilty of a misdemeanor offense and, upon conviction thereof, shall be punished by a fine of not more than One Thousand Two Hundred Dollars ($1,200.00), excluding cost, fees, and assessments or by imprisonment in the City Jail for a period not exceeding six (6) months or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

108.7.2 Authority to disconnect service utilities--Amendatory. The code official shall have the authority to require disconnection of utility service to eliminate an immediate hazard to life or property or to abate a violation of any provision of this code. The code official shall notify the serving utility and, where possible, the owner or the owner's authorized agent and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnection, the owner or occupant of the building, structure or service system shall be notified in writing, as soon as practicable thereafter.

SECTION 109. MEANS OF APPEAL--Amendatory. Appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this

code, shall be made to the Board of Appeals as established by Title 51, Chapter 1, Tulsa Revised Ordinances.

306.6 Guards--Amendatory. Guards shall be provided where various components that require service are located on a roof or elevated structure and have a condition as set forth in Sections 306.1 through 306.6.3 The top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards 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 306.1 through 306.6.3. Exception: When approved by the authority having jurisdiction, guards are not required where permanent fall arrest/restraint anchorage connector devices that comply with ANSI/ASSE Z 359.1 are affixed for use during the entire roof covering lifetime. The devices shall be reevaluated for possible replacement when the entire roof covering is replaced. The devices shall be placed no 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.

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

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

(A) Guards are not required when the skylight is located at least 42 inches (1067 mm) above the highest point of the walking surface adjacent to the skylight or components. (B) Guards are not required if some other provision for skylight fall-through protection is provided and approved by the authority having jurisdiction.

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

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

310.1.1 CSST--Amendatory. Corrugated stainless steel (CSST) gas piping systems and piping systems containing one or more segments of CSST shall be bonded to the electrical service grounding electrode system or, where provided, the lightning protection grounding electrode system.

Exception: Corrugated stainless steel gas piping or tubing products or systems that have been designed, manufactured and listed for installation without bonding to the grounding electrode system, shall be permitted to be installed in accordance with the manufacturer's installation instructions.

401.1.2 Work on Consumer's Gas Piping Containing Unmeasured Gas--Added. Repair, alterations, relocations, or any other work conducted on any portion of a consumer's gas piping, containing unmeasured gas, shall only be performed by a qualified person or installation agency authorized to do such work. When such work is done, the gas utility company shall be notified. The movement, connection, or disconnection of gas meters shall only be performed by gas utility company employees or others authorized by the gas utility company. For unmeasured gas pressure above three (3) psig, the line shall be tested at ninety (90) psig.

402.1. General Considerations--Amendatory. Piping systems shall be of such size and so installed as to provide a supply of gas sufficient to meet the maximum demand and supply gas to each appliance inlet at not less than the minimum supply pressure required by the appliance, but not less than 1" to the first connected appliance or regulator.

404.7.4 Protection against physical damage--Added. Gas piping other than steel piping installed less than 1-1/2 inches from roof decking shall be protected against physical damage by an approved method.

404.10.2. Separation of gas piping from other piping systems.—Added. There shall be a minimum 12 inches of undisturbed or compacted earth separation between buried gas piping and any other electrical service lines, water piping or sewer piping systems.

404.12. Minimum burial depth--Amendatory. 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).

406.4.1 Test pressure--Amendatory. The test pressure to be used shall be no less than 1 1/2 times the proposed maximum working pressure, but not less than 3 psi on a five (5) psi gauge registered in one-tenth pound increments or ten (10) psi on a thirty (30) psi gauge registered in one (1) pound increments. Where the test pressure exceeds 125 psig (862 kPa gauge), the test

pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

406.6.2.1 General--Added. At least one appliance shall be connected prior to final release of the gas meter.

411.2.1 Location, Protection and Sizing of Riser--Added. The gas riser to each manufactured home site shall be placed in the rear one-third (a) section of the site, within eighteen (18) inches of the roadside wall of the manufactured home (i.e., the right side of the manufactured home when viewing the tongue of the manufactured home). It shall be located and protected or supported so as to minimize the likelihood of damage by moving vehicles. The minimum size of the gas piping outlet at such a site shall be three-fourths (¾) inch for other than undiluted, liquefied petroleum gases.

411.2.2 Location of Shut-off Valves--Added.

A. Outlets for the individual manufactured homes and gas piping to any building supplied by the system shall be provided with a readily accessible, approved valve which cannot be locked in the open position.

B. A readily accessible valve shall be provided near the point of gas delivery for shutting off the entire manufactured home park system. The valve provided by the serving gas supplier may be considered acceptable for this purpose, provided it is readily accessible.

Chapter 8 Referenced Standards--Amendatory. Chapter 8 of the IFGC 2015 is adopted with the following modifications:
IBC®-15 International Building Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IECC®-06 International Energy Conservation Code®
IFC®-15 International Fire Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IMC®-15 International Mechanical Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IPC®-15 International Plumbing Code® as adopted and modified by the State of Oklahoma through the OUBCC.
IRC®-09 International Residential Code® as adopted and modified by the State of Oklahoma through the OUBCC.
NFPA 70-14 National Electrical Code® as adopted and modified by the State of Oklahoma through OUBCC."

Section 4. REPEAL OF CONFLICTING ORDINANCES. That all ordinances or parts of ordinances in conflict herewith be and the same are hereby expressly repealed.

Section 5. SEVERABILITY. If any section, subsection, paragraph, subparagraph, sentence, clause or phrase of this Ordinance shall be declared invalid for any reason whatsoever, such decision shall not affect the remaining portions of this Ordinance, which shall

remain in full force and effect, and to this end, the provisions of this Ordinance are hereby declared to be severable.

Section 6. EMERGENCY CLAUSE. That an emergency is hereby declared to exist for the preservation of the public peace, health and safety, by reason whereof this Ordinance shall take effect immediately from and after its passage, approval and publication.

ADOPTED by the Council: FEB 1 1 2016
Date

Chair of the Council

ADOPTED as an emergency measure: FEB 1 1 2016
Date

Chair of the Council

RRE:eg/rk

10/8/15

OFFICE OF THE MAYOR

Received by the Mayor: _____, at _____.
Date Time

Dewey F. Bartlett, Jr., Mayor

By_____
Secretary

APPROVED by the Mayor of the City of Tulsa, Oklahoma: FEB 15 2016,
Date

at _____.
Time

Mayor PRO-TEM

(Seal)
ATTEST:

City Clerk

APPROVED AS TO FORM AND LEGALITY:

City Attorney rre

RRE:eg/rk 10/8/15