

**ORDINANCE #68639**  
**Board Bill No. 337**  
**Committee Substitute**

An ordinance pertaining to the Mechanical Code of the City of Saint Louis; repealing Sections One, Two and Three and Chapter 1 (Administration) of Ordinance 65021 and Ordinance 65296 (Chapter 25.03 Mechanical Code) and replacing the same with new Sections One, Two and Three and a new Chapter 1 (Administration) and Amending Other Sections and Chapters of Ordinance 65021 and Ordinance 65926; adopting the *International Mechanical Code*, 2009 Edition with Changes, as the Mechanical Code of the City of Saint Louis; and containing a penalty clause, a severability clause and an emergency clause.

**BE IT ORDAINED BY THE CITY OF SAINT LOUIS AS FOLLOWS:**

**SECTION ONE.**, Ordinance 65021, approved August 2, 2000, and Ordinance 65926, approved June 26, 2003, pertaining to the 2000 *International Mechanical Code* are hereby repealed and/or modified as set forth below. Ordinance 62579, approved March 31, 1992, pertaining to the licensing of Mechanical contractors is hereby repealed.

**SECTION TWO.** The *International Mechanical Code*, 2009 Edition as published by the International Code Council, Inc., three copies of which are on file in the Office of the Register of the City of Saint Louis, is hereby adopted as “The Mechanical Code of the City of Saint Louis, in the State of Missouri”, pursuant to and subject to the changes and exceptions set forth in this Ordinance and in conformity with Section 71.943 RSMo, for the governing of the design, installation, construction and maintenance of mechanical systems, by providing reasonable safeguards to protect the public health and safety against the hazards of inadequate, defective or unsafe mechanical systems and installations as herein provided; and that subject to the changes and exceptions set forth in this Ordinance, each and all of the regulations, provisions, penalties, conditions and terms of said *International Mechanical Code* are hereby referred to, adopted and made a part hereto, as if set out in this ordinance with the additions, insertions, deletions and changes prescribed in Section Three of this Ordinance.

**SECTION THREE.**

The 2009 *International Mechanical Code* is amended and changed in the following respects:

- A. Section 1105.8 (regarding redundancy pressure relief valves for ammonia operations) shall not apply and is replaced by the provisions of Section 1105.8 from the *International Mechanical Code* 2003 Edition.
- B. Section 1107.2 shall not apply provided that pipes elevated at less than seven feet three inches are adequately protected from potential damage by operations in the area of the pipe.

**CHAPTER 1**

**ADMINISTRATION**

Chapter 1 of the St. Louis City Revised Code Chapter 25.03 is hereby replaced in its entirety with the following:

**SECTION 101**  
**GENERAL**

**101.1 Title.** These regulations shall be known as the Mechanical Code of the City of Saint Louis, hereinafter referred to as “this code.”

**101.2 Scope.** This code shall regulate the design, installation, maintenance, alteration, relocation and inspection of mechanical systems that are installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed in this code.

**101.2.1 Appendices.** Provisions in the appendices shall not apply unless specifically adopted. Appendix A is hereby adopted for use by the City of Saint Louis.

**101.3 Intent.** The purpose of this code is to provide minimum standards to safeguard life and limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, and maintenance or use of mechanical systems. This code shall be construed to secure its expressed intent, which is to insure public health, safety and

welfare insofar as they are affected by the installation and maintenance of mechanical systems.

## SECTION 102 APPLICABILITY

**102.1 General.** The provisions of this code shall apply to all matters affecting or relating to structures and premises as set forth in Section 101. Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive sections shall govern.

**102.2 Existing installations.** Except as otherwise provided for in this chapter, a provision in this code shall not require the removal, alteration or abandonment of, nor prevent the continued utilization and maintenance of, an existing mechanical system lawfully in existence at the time of adoption of this code.

**102.3 Maintenance.** Mechanical systems, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe and sanitary condition. Devices or safeguards which are required by this code shall be maintained in compliance with the code edition under which installed.

The owner or the owner's designated agent shall be responsible for maintenance of mechanical systems. To determine compliance with this provision, the code official shall have the authority to require a mechanical system to be reinspected.

**102.4 Additions, alterations or repairs.** Additions, alterations, renovations or repairs to a mechanical system shall conform to that required for a new mechanical system without requiring the existing mechanical system to comply with all the requirements of this code. Additions, alterations or repairs shall not cause an existing mechanical systems to become unsafe, hazardous or overloaded.

Minor additions, alterations, renovations and repairs to existing mechanical systems shall meet the provisions for new construction, unless such work is done in the same manner and arrangement as was in the existing system, is not hazardous and is approved.

**102.5 Change in occupancy.** It shall be unlawful to make a change in the occupancy of any structure which will subject the structure to any special provision of this code applicable to the new occupancy without approval. The code official shall certify that such structure meets the intent of the provisions of law governing building construction for the proposed new occupancy and that such change of occupancy does not result in any hazard to public health, safety or welfare.

**102.6 Historic buildings.** The provisions of this code relating to the construction, alteration, repair, enlargement, restoration, relocation or moving of building or structures shall not be mandatory for existing buildings or structures identified and classified by the state or City of Saint Louis as historic buildings when such buildings or structures are judged by the code official to be safe and in the public interest of health, safety and welfare regarding any proposed construction, alteration, repair, enlargement, restoration, relocation or moving of buildings.

**102.7 Moved buildings.** Except as determined by Section 102.2, mechanical systems that are a part of buildings or structures moved into or within the City of Saint Louis shall comply with the provisions of this code for new installations.

**102.8 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 15 and considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the most stringent provision shall apply.

**102.9 Requirements not covered by code.** Requirements necessary for the strength, stability or proper operation of an existing or proposed mechanical system, or for the public safety, health and general welfare, not specifically covered by this code, shall be determined by the code official.

**102.10 Workmanship.** All work shall be conducted, installed and completed in a workmanlike and approved manner so as to secure the results intended by this code.

## SECTION 103 SECTION OF MECHANICAL EQUIPMENT INSPECTION

**103.1 General.** There is hereby created the Section of Mechanical Equipment Inspection within the Division of Building and

Inspection which shall have control and enforce all codes, regulations and ordinances pertaining to mechanical installations and systems in accordance with this code. The head of this section shall be known as the Mechanical Equipment Inspection Supervisor, who shall be appointed by the Building Commissioner. Throughout this code, the Mechanical Equipment Inspection Supervisor, the Chief Mechanical Engineer, the Building Commissioner and their authorized employees shall be referred to as the code official.

**103.2 Mechanical equipment inspection supervisor.** There shall be appointed by the Building Commissioner a Mechanical Equipment Inspection Supervisor. The Supervisor shall have a minimum of five years experience as a Mechanical Inspector and possess the qualifications established by the Department of Personnel.

**103.3 Deputies.** There shall be appointed by the code official a sufficient number of Mechanical Equipment Inspectors to adequately perform all inspection duties and enforce all ordinances pertaining to the Mechanical Equipment Inspection Section in accordance with subsequent sections of this code and City of Saint Louis budgetary constraints. All Mechanical Inspectors shall have had at least three years experience and possess the qualifications set forth by the Department of Personnel.

**103.3.1 Assistant to the supervisor.** One such inspector shall assist the Mechanical Equipment Inspection Supervisor. The assistant shall assume the responsibilities of the Mechanical Equipment Inspection Supervisor in the Supervisor's absence or disability.

**103.3.2 Restriction of employees.** An official or employee connected with the Mechanical Equipment Inspection Section, except one whose only connection is that of a member of the Board of Stationary Engineers, shall not be engaged in, or directly or indirectly connected with the furnishing of labor, materials or appliances for the construction, alteration or maintenance of a building in the City of Saint Louis, or the preparation of construction documents thereof, unless that person is the owner of the building; nor shall such code official or employee engage in any work that conflicts with official duties or with the interests of the department.

**103.4 Liability.** The code official and employees charged with the enforcement of this code, while acting for the City of Saint Louis, shall not thereby be rendered liable personally, and are hereby relieved from all personal liability for any damage accruing to persons or property as a result of any act required or permitted in the discharge of official duties.

Any suit instituted against any code official or employee because of an act performed in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the City of Saint Louis until the final termination of the proceedings. The code official or any employees shall not be liable for any cost in or arising from any action, suit or proceeding that is instituted in pursuance of the provisions of this code. Any code official or employee of the Division of Building and Inspection, Department of Public Safety, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

The above protection shall also extend to former employees for work performed during their period of employment with the City of Saint Louis.

## **SECTION 104 DUTIES AND POWERS OF THE CODE OFFICIAL**

**104.1 General.** The code official shall enforce all of the provisions of this code and shall act on any question relative to the installation, alteration, repair, maintenance or operation of all mechanical systems, devices and equipment, except as otherwise specifically provided for by statutory requirements or as provided for in Sections 104.1.1 through 104.8.

**104.1.1 Emergency condemnation.** Whenever the code official shall find any building, structure, premises or portion thereof no matter for what purpose used, to be in an unsafe or dangerous condition and that there is an actual and potential danger to the occupants or those in the proximity of any building, structure or premises which poses an immediate danger to public safety or welfare, the code official shall order the immediate evacuation of said building, structure or premises. All of the occupants so notified shall immediately vacate the building, structure, or premises and no person shall re-enter until authorized to do so by the code official.

Any person who refuses to leave, interferes with the evacuation of other occupants, or continues any operation after having been given an evacuation order by the code official, except such person(s) directed to perform work to remove a violation or unsafe condition shall be deemed in violation of this section whereupon it shall be the duty of the Police Department

to immediately remove such person(s) from said building, structure, or premises and prevent anyone from re-entering the building, structure or premises until such time that the Police Department shall have been notified by the Building Division that the same is in a safe condition.

Any person who shall violate any provisions of this section shall, upon conviction thereof, be penalized as set forth in SECTION FOUR.

**104.1.2 Authority to placard.** The code official has the authority to post a placard in a conspicuous place on a building or premises where the mechanical system has been found to be unsafe or inadequate.

**104.1.3 Placarded building.** Placards shall remain on said building until the required repairs, replacements or improvements have been made and accepted by the code official, and it shall be unlawful to deface or willfully remove any such placard that has been posted on a building without first obtaining consent of the code official. It shall be unlawful for any person to reside in, use, rent, lease or occupy such building for any purpose while so placarded and no person shall remove said placards without the consent of the code official.

**104.1.4 Rule making authority.** The Building Commissioner shall have authority as necessary in the interest of public health, safety and general welfare, to adopt and promulgate rules and regulations; to interpret and implement the provisions of this code; to secure the intent thereof; and to designate requirements applicable because of local climatic or other conditions. Such rules shall not have the effect of waiving structural or fire performance requirements specifically provided for in this code, or of violating accepted engineering practice involving public safety.

**104.1.5 Accepted engineering practice.** In the absence of provisions not specifically contained in this code or approved rules, the regulations, specifications and standards listed in Chapter 15 shall be deemed to represent accepted engineering practice in respect to the material, equipment, system or method of construction therein specified.

**104.2 Applications and permits.** The code official shall receive applications for and issue permits for the installation, replacement, relocation and alteration of mechanical systems and equipment, and inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code. Such application shall describe in detail the nature of the work and the location thereof by street and number. No person shall begin such work unless and until they shall have submitted a proper application and received a permit. In the case of an emergency, work may begin upon the verbal request of the applicant and verbal permission of the code official, upon the condition that such written application shall be filed in the office of the code official without delay.

**Exception:** Buildings, structures or premises owned and occupied by the United States of America or the State of Missouri.

**104.3 Inspections.** The code official shall make all of the required inspections, or the code official may accept reports of inspection by authoritative and recognized services or individuals. All reports of such inspections shall be in writing and certified by a responsible officer of such authoritative service or by the responsible individual. The code official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise subject to the approval of the appointing authority.

**104.4.1 Dangerous, hazardous, unsanitary, or unapproved installations.** The code official shall have the authority to seal out of service mechanical equipment, devices, and appurtenances covered by the Building and Mechanical Codes when, in the code official's opinion, any of these items are in an unsafe, hazardous, or unsanitary condition, or if the installation was made without obtaining the necessary permit or permits, or if the installation violates the provisions of these codes.

**104.4.2 Notice of sealing out of service.** Before sealing any device out of service, the code official shall, except in cases of emergency, serve ten calendar days written notice upon the building owner, occupant or collector of rent either directly or by United States mail, stating intention to seal the equipment out of service and the reasons therefore.

**104.4.3 Unlawful to remove seal.** Any device sealed out of service by the code official shall be plainly marked with a sign or tag indicating such sealing, and any defacing or removal of the sign or tag, or any tampering with or removal of the seal without approval of the code official, or operation of the sealed unit, shall constitute a violation of this code. The penalty for violation of this section shall be as set forth in **SECTION FOUR**.

**104.4.4 Utility disconnect.** Whenever the code official determines that there is an imminent danger to public safety, the

code official may request that the public utilities be disconnected to that structure or premises.

**104.4 Right of entry.** Whenever it is necessary to make an inspection to enforce the provisions of this code, or whenever the code official has reasonable cause to believe that there exists in a building or upon any premises any condition or violation of this code which makes the building or premises unsafe, insanitary, dangerous or hazardous, the code official shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the code official by this code. If such building or premises is occupied, the code official shall present credentials to the occupant and request entry. If such building is unoccupied, the code official shall first make a reasonable effort to locate the owner or other person having charge or control of the building or premises and request entry. If entry is refused, the code official has recourse to every remedy provided by law to secure entry.

When the code official has first obtained a proper inspection warrant or other remedy provided by law to secure entry, an owner or occupant or person having charge, care or control of the building or premises shall not fail or neglect, after proper request is made as herein provided, to promptly permit entry therein by the code official for the purpose of inspection and examination pursuant to this code.

**104.6 Identification.** The code official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

**104.7 Notices and orders.** The code official shall issue all necessary notices or orders to assure compliance with this code.

**104.8 Suspensions and Cancellations.** The code official shall have the power and is directed to suspend for a definite time or to cancel any license granted hereunder, if, after notice and opportunity to be heard, the party named therein is found guilty by the Board of Examiners of violating rules and regulations established by the Section of Mechanical Equipment Inspection, and do all other acts necessary to carry out these provisions.

**104.9 Department records.** The code official shall keep official records of mechanical applications received, permits issued, fees collected, licenses and certificates issued, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for three years, except notices and orders which have been complied need not be kept.

## SECTION 105 APPROVAL

**105.1 Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this code, the code official shall have the authority to grant modifications for individual cases, provided the code official shall first find that the special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements.

**105.2 Alternative materials, methods and equipment.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material or method of construction shall be approved where the code official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code for quality, strength, effectiveness, fire resistance, durability and safety.

**105.2.1 Approved materials and equipment.** All materials, equipment and devices not covered by this code and approved by the code official shall be constructed and installed in accordance with such approval.

**105.3 Required testing.** Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the code official shall have the authority to require tests as evidence of compliance to be made at no expense to the City of Saint Louis.

**105.3.1 Test methods.** Test methods shall be as specified in this code or by other recognized and accepted test standards. In the absence of recognized and accepted test methods, the code official shall approve the testing procedures.

**105.3.2 Testing agency.** All tests shall be performed by an approved independent testing agency.

**105.3.3 Test reports.** Reports of tests shall be retained by the code official for the period required for retention of public records.

**105.4 Material and equipment reuse.** Materials, equipment and devices shall not be reused unless such elements have been reconditioned, tested and placed in good and proper working condition and approved by the code official.

## **SECTION 106 PERMITS**

**106.1 When required.** No person shall commence any mechanical work until a permit for such work has been issued by the code official. The fees for said permits shall be paid to the City of Saint Louis for each permit herein required. All work shall be done by the person or corporation in whose name the permit or permits required by this section are issued, or any other qualified person or corporation designated by the permit holder. Any person who shall fail to comply with or who shall violate any of the provisions of this section shall be subject to the penalty provisions of **SECTION FOUR**.

**Exception:** When equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day of the section of mechanical equipment inspection.

**106.2 Permits not required.** Permits shall not be required for any of the following:

1. Any portable heating appliance.
2. Any portable ventilation equipment.
3. Any portable cooking unit.
4. Replacement of any minor part which does not alter approval of equipment or make such equipment unsafe.
5. Any portable evaporation cooler; and
6. Any self-contained refrigeration system containing 3 pounds (1.36 kg) or less of refrigerant, or actuated by motors of less than 1 horsepower (0.75 kW).

Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinance of the City of Saint Louis.

**106.3 Application for permit.** Each application for a permit, with the required fee, shall be filed with the code official in such written form as the code official prescribes and shall be accompanied by an adequate written description of the proposed mechanical work and its location. The application shall be made by the owner or lessee of a structure, or the agent of either, or by the registered design professional employed in connection with the proposed work or the contractor employed in connection with the proposed work. The full names, addresses and telephone numbers of the owner, lessee, applicant and the responsible officers, if the owner or lessee is a corporate body, shall be stated in the application.

**106.3.1 Construction documents.** The code official is authorized to require the submission and approval of a set of construction documents showing the nature and extent of the proposed work before a permit is issued. If, in the course of the work, it is found necessary to make any change from the approved construction documents on which a permit has been issued, amended construction documents shall be submitted, and if approved, a supplementary permit shall be issued, after payment of any additional fees, to cover the change after the same conditions required to secure the original permit have been satisfied. The code official is permitted to waive the requirements for filing construction documents where the work involved is of a minor nature. When the quality of the materials is essential for conformity to this code, specific information shall be given to establish such quality, and this code shall not be cited, or the term "legal" or its equivalent used as a substitute for specific information.

The code official is authorized to require the submission of specific information in order to determine compliance with this

code.

All construction documents prepared by a registered design professional shall bear the original seal, signature and date in ink of that person. Construction documents for structures more than two stories in height shall indicate how required structural and fire resistance rating integrity will be maintained, and where penetrations will be made for electrical, mechanical, plumbing and communication conduits, pipes and systems.

**106.3.2 Seismic installations.** Construction documents for installations which must meet the seismic requirements of the Building Code listed in Chapter 15 of this code shall show the details of all pertinent anchorage and bracing and shall bear the original seal, signature and date in ink of a registered design professional licensed to practice in the State of Missouri.

**106.3.3 Amendments to application.** Subject to the time limitations of Section 106.3.4, amendments to the construction documents, application or other records accompanying the same shall be filed at any time before completion of the work for which the permit is sought or issued. Such amendments shall be deemed part of the original application and shall be filed in the same manner as the original.

**106.3.4 Time limitation of application.** An application for a permit for any proposed work shall be deemed to have been abandoned six months after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued. The code official may grant one or more extensions of time for additional periods not exceeding one hundred eighty days each, if there is reasonable cause.

**106.4 Permit issuance.** The application, construction documents and other data filed by an applicant for a permit shall be reviewed by the code official. If the code official finds that the proposed work conforms to the requirements of this code and all laws and ordinances applicable thereto, and that the fees specified in Section 106.5 have been paid, a permit shall be issued to the applicant. A mechanical permit shall not be transferable.

If the application or the construction documents do not conform to the requirements of all pertinent ordinances of the City of Saint Louis, the code official shall reject such application in writing, stating the reasons therefore.

**106.4.1 Approved construction documents.** When the code official issues a permit where construction documents are required, such approved construction documents shall not be changed, modified or altered without authorization from the design professional and the code official. Work shall be done in accordance with the approved construction documents.

The code official is authorized to issue a permit for the installation of part of a mechanical system before the application for the whole system has been submitted or approved, provided adequate information and detailed statements have been filed complying with all the pertinent requirements of this code. The holder of such permit shall proceed at their own risk without assurance that the permit for the entire mechanical system will be granted.

Except for unsafe mechanical systems or installations, this code shall not require changes in the construction documents or mechanical work for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the installation of which shall have been actively prosecuted within ninety days after the effective date of this code and is completed with dispatch.

**106.4.2 Validity.** The issuance of a permit or approval of construction documents shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of other ordinances of the City of Saint Louis. A permit presuming to give authority to violate or cancel the provisions of this code shall be invalid.

The issuance of a permit based upon construction documents and other data shall not prevent the code official from thereafter requiring the correction of errors in said construction documents and other data or from preventing building operations from being carried on thereunder when in violation of this code or of other ordinances of the City of Saint Louis.

**106.4.3 Expiration.** Every permit issued by the code official under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within one hundred eighty days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty days. The code official may grant one or more extensions of time for an additional period the total not to exceed six months if there is reasonable cause. Before such work recommences, a new

permit shall be first obtained and a new fee paid.

**106.4.4 Extensions.** A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee if there is reasonable cause.

**106.4.5 Suspension or revocation of permit.** The code official shall suspend or revoke a permit or approval issued under the provisions of this code in case of any false statement or misrepresentation of fact in the application or on the construction documents upon which the permit or approval was based. A permit shall also be considered for revocation under the following provisions:

1. The owner of the property or the contractor shall request cancellation in writing stating the reasons for the request for cancellation. No refund of fees shall be made.
2. The code official may revoke the permit for fraud, for non-compliance with the code or for failure to pay the prescribed fees.

Should the mechanical contractor install work that is not in compliance with the mechanical, fire or building code, the contractor shall be directed by the code official to make necessary corrections to assure code compliance and no other permits shall be issued to said contractor until such work is corrected and approved by the code official.

**106.4.6 Retention of construction documents.** One set of construction documents shall be retained by the code official until final approval of the work covered therein. One set of construction documents shall be returned to the applicant and said set shall be kept at the site of the building or work at all times during which the work authorized thereby is in progress.

**106.4.7 Posting of permit.** A true copy of the permit shall be kept on the site of operations, open to public inspection during the entire time of prosecution of the work and until the completion of the same.

**106.4.8 Business License Requirement.** A permit shall not be issued to any person that does not have a current and valid Business License from the City of St. Louis.

**Exception:** An owner-occupant of a single family dwelling.

**106.4.9 License.** A permit shall not be issued to any person for work that requires a license pursuant to Section 111 herein if such person does not possess the required license for such work.

**106.4.10 EPA Card.** Any person that handles or purchases refrigerants must be certified as a Universal Technician as required by 40 CFR part 82, Subpart F, a federal law.

**106.4.11 Homeowners Permit.** Any person that is an owner-occupant of a single family dwelling may be issued a permit to install heating/air-conditioning equipment for that dwelling after first showing sufficient knowledge for the installation to the Mechanical Equipment Inspection Section.

**106.5 Fees.** A permit shall not be issued until the fees prescribed in Table 106.5.2 have been paid, nor shall an amendment to a permit necessitating an additional fee because of the additional work involved be released until the additional fee has been paid. Fees for the inspections herein prescribed shall be paid to and collected by the City of Saint Louis. A permit may be revoked if payment is returned for insufficient funds.

**106.5.1 Work commencing before permit issuance surcharge.** In case any work for which a permit required by this code is started or proceeded with prior to the permit being issued, the total normal fees applicable shall be doubled. The payment of said surcharge shall not relieve any persons from fully complying with the requirements of this code for performance or execution of the work, nor from other penalties prescribed by law.

**106.5.2 Fee schedule.** The fees for all mechanical work shall be as indicated in Table 106.5.2. Mechanical permit fees shall not be waived for contractors working in facilities owned and operated by the City of Saint Louis.

TABLE 106.5.2

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|--|---|--|
| Application Fee  |   | \$25.00  |
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| Amusement Rides, each  |   | \$10.00  |
| Auto Lifts, each   |   | \$80.00  |
| Boilers (except residential), each   |   | \$100.00   |
| Unfired Pressure Vessels, each   |   | \$40.00  |
| Refrigeration/Air Conditioning (chillers, condensing units, self-contained walk-in coolers/freezers), each   | Up to 15 tons<br>15 tons and over   | \$60.00<br>\$85.00 + \$1.00 per ton  |
| Cooling Towers, each   |   | \$200.00   |
| Ventilation Systems, each<br>air handling units, packaged units, make-up air units, unit heaters, unit ventilators, etc.<br><br>Air Terminal Units | 200CFM to 2000CFM<br>2001CFM to 5000CFM<br>5001CFM and over                               | \$200.00<br>\$80.00<br>\$140.00<br>\$180.00<br><br>\$40.00 1st/\$10.00 each additional |
| Exhaust Fans, each   | 200CFM to 2000CFM<br>2001CFM to 5000CFM<br>5001CFM and over                               | \$80.00<br>\$140.00<br>\$180.00  |
| Exhaust Hoods, each  |   | \$40.00  |
| Smoke Control Fans, each location  |   | \$250.00   |
| Process Piping (waived for Use Groups R1, R2 and R3; \$40.00 flat fee per job for HVAC Installers)   |   | \$20.00, plus \$2.00 per horsepower serving the pipe                                   |
| Residential Fees Use Groups R1, R2, and R3   | Furnaces, each<br>Condensing units, each<br>Combination furnace/<br>condensing unit, each | \$40.00<br>\$40.00<br>\$40.00  |
| Re-inspection, each ( <i>for faulty or incomplete work at time of requested inspection</i> )   |   | \$25.00  |
| Special inspection, each   |   | \$40.00  |

**106.5.3 Fees for abandoned work or revoked permit.** Fees shall not be waived or refunded for any mechanical permit that has been abandoned, canceled or revoked.

## SECTION 107 INSPECTIONS AND TESTING

**107.1 Required inspections and testing.** All equipment for which a permit is obtained under this code shall be inspected and approved. Any portion of equipment intended to be concealed by any permanent portion of the structure shall not be concealed until inspected. The code official shall have the authority to require any concealment to be removed. Failure to comply with this order of

the code official may result in condemnation of the structure or any part thereof and prohibition of occupancy. When installation of any equipment is complete, a final inspection shall be made. Equipment regulated by this code shall not be connected to the fuel or power supply and placed in normal operation until such equipment complies with all applicable requirements of this code, and a final inspection has been completed.

The requirements above shall not be considered to prohibit the operation of any heating equipment installed to replace existing heating equipment serving an occupied portion of a structure in the event a request for inspection of such heating equipment has been filed with the department not more than 48 hours after replacement work is completed, and before any portion of such equipment is concealed by any permanent portion of the structure.

Upon completion of the mechanical work and before final approval is given, a final inspection shall be made. All violations of any code, any approved construction document or the mechanical permit shall be noted, and the holder of the mechanical permit shall be notified of the discrepancies. All violations shall be abated before final approval.

**107.1.1 Approved inspection agencies.** The code official shall accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualification and reliability.

**107.1.2 Evaluation and follow-up inspection services.** Prior to the approval of a closed, prefabricated mechanical system and the issuance of a mechanical permit, the code official, if deemed necessary, shall require the submittal of an evaluation report on each prefabricated mechanical system, indicating the complete details of the mechanical system, including a description of the mechanical system and its components, the basis upon which the mechanical system is being evaluated, test results and similar information, and other data as necessary for the code official to determine conformance to this code.

**107.1.2.1 Evaluation service.** The code official shall designate the evaluation service of an approved agency as the evaluation agency, and review such agency's evaluation report for adequacy and conformance to this code.

**107.1.2.2 Follow-up inspection.** Except where ready access is provided to mechanical systems, service equipment and accessories for complete inspection at the site without disassembly or dismantling, the code official shall conduct the in-plant inspections as frequently as necessary to assure conformance to the approved evaluation report or shall designate an independent, approved inspection agency to conduct such inspections. The inspection agency shall furnish the code official with the follow-up inspection manual and a report of inspections upon request, and the mechanical system shall have an identifying label permanently affixed to the system indicating that factory inspections have been performed.

**107.1.2.3 Test and inspection records.** All required test and inspection records shall be available to the code official at all times during the fabrication of the mechanical system and the erection of the building; or such records as the code official designates shall be filed.

**107.2 Testing.** Mechanical systems shall be tested as required in this code and in accordance with Sections 107.2.1 through 107.2.3. Tests shall be made by the permit holder and observed by the code official.

**107.2.1 New, altered, extended or repaired systems.** New mechanical systems and parts of existing systems, which have been altered, extended or repaired shall be tested as prescribed herein to disclose leaks and defects.

**107.2.2 Equipment, material and labor for tests.** Equipment, material and labor required for testing a mechanical system or part thereof shall be furnished by the permit holder.

**107.2.3 Reinspection and testing.** Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for inspection and testing.

**107.3 Contractor's responsibilities.** It shall be the responsibility of every contractor who enters into contracts for the installation or repair of mechanical systems for which a permit is required to comply with adopted federal, state and local rules and regulations concerning certification and licensing.

**107.4 Coordination of inspections.** Whenever in the enforcement of this code or another code or ordinance, the responsibility of

more than one code official is involved, it shall be the duty of the code officials involved to coordinate their inspections and administrative orders as fully as practicable so that the owners and occupants of the structure shall not be subjected to visits by numerous inspectors or multiple or conflicting orders. Whenever an inspector from any agency or department observes an apparent or actual violation of some provision of some law, ordinance or code not within the inspector's authority to enforce, the inspector shall report the findings to the code official having jurisdiction.

**107.4.1 Legal compliance.** All legal assistance necessary to effect compliance of the mechanical systems of such premises with this section shall be supplied to the code official by the City Counselor and other City of Saint Louis agencies. The Fire and Police Departments of the City of Saint Louis shall, upon request, assist the code official in the enforcement of this code.

**107.5 Approval.** After the prescribed tests and inspections indicate that the work complies in all respects with this code, all equipment subject to annual inspection shall be identified by a tag bearing the city identification number and, where applicable, a sticker denoting approval shall be applied to all other equipment.

**107.6 Temporary connection.** The code official shall have the authority to authorize the temporary connection of a mechanical system to the sources of energy for the purpose of testing mechanical systems or for use under a temporary certificate of occupancy.

**107.7 Moved structures.** Before any structure that has been moved within or into the City of Saint Louis is occupied, all mechanical equipment and devices shall be inspected and tested for safe operation and compliance with the requirements of this code.

**Exception:** Mechanical systems within manufactured units bearing certification of the Missouri Public Service Commission.

## SECTION 108 VIOLATIONS

**108.1 Unlawful acts.** It shall be unlawful for any person, firm or corporation to erect, construct, alter, repair, remove, demolish or operate mechanical equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. All work shall be conducted, installed and completed in a workmanlike and approved manner so as to secure the results intended by this code.

**108.2 Notice of violation.** The code official shall serve a written notice of violation or order to the person, firm or corporation responsible for the erection, installation, alteration, extension, repair, removal, demolition or operation of mechanical equipment or systems in violation of the provisions of this code, or in violation of a detailed statement, or the approved construction documents thereunder, or in violation of a permit issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

**108.3 Prosecution of violation.** If the notice of violation is not complied within the time stated in the Notice of Violation, but no longer than thirty days, the code official shall request the legal counsel of the City of Saint Louis to institute the appropriate proceedings at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant thereto. The time for compliance may be extended by the code official, upon written request, if there are extenuating circumstances.

**108.4 Violation penalties.** Any person, partnership or corporation who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct, alter or repair mechanical equipment or systems in violation of the approved construction documents or directive of the code official, or of a permit or license issued under the provisions of this code, shall, upon conviction thereof, be penalized as set forth in **SECTION FOUR**.

**108.5 Stop work orders.** Upon notice from the code official that mechanical work is being done contrary to the provision of this code or in a dangerous or unsafe manner, or without permit, such work shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. The stop work order shall state the conditions under which the work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work on the system after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be subject to immediate arrest and, upon conviction thereof, shall be penalized as set forth in Section Four.

**108.6 Abatement of violation.** The imposition of the penalties herein prescribed shall not preclude the legal officer of the City of Saint Louis from instituting appropriate action to prevent unlawful construction or to restrain, correct or abate a violation, or to prevent illegal occupancy of a building, structure or premises, or to stop an illegal act, the conduct of business or operation of mechanical equipment or systems on or about any premises.

**108.7 Unsafe mechanical systems.** A mechanical system that is unsafe, constitutes a fire hazard, or is otherwise dangerous to human life, as regulated by this code, is hereby declared as an unsafe mechanical system. Use of a mechanical system regulated by this code constituting a hazard to health, safety or welfare by reason of inadequate maintenance, dilapidation, fire hazard, disaster, damage or abandonment is hereby declared an unsafe use. Such unsafe equipment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal.

**108.7.1 Authority to condemn mechanical systems.** Whenever the code official determines that any mechanical system, or portion thereof, regulated by this code has become hazardous to life, health, property, or has become insanitary, the code official shall order in writing that such system either be removed or restored to a safe condition. A time limit for compliance with such order shall be specified in the written notice. A person shall not use or maintain a defective mechanical system after receiving such notice.

When such mechanical system is to be disconnected, written notice as prescribed in Section 108.2 shall be given. In cases of immediate danger to life or property, such disconnection shall be made immediately without such notice.

Fuel-fired or electrically supplied heating or cooling appliances or equipment shall not be removed from any structure to be demolished until the service supplied to the structure for such equipment has been terminated by the utility company.

**108.7.2 Authority to order disconnection of energy sources.** The code official shall have the authority to order disconnection of energy sources supplied to a building, structure or mechanical system regulated by this code, when it is determined that the mechanical system or any portion thereof has become hazardous or unsafe. Written notice of such order to disconnect service and the causes therefore shall be given within twenty-four hours to the owner and occupant of such building, structure, or premises, provided, however, that in cases of immediate danger to life or property, such disconnection shall be made immediately without such notice. Where energy sources are provided by a public utility, the code official shall immediately notify the serving utility in writing of the issuance of such order to disconnect.

**108.7.3 Connection after order to disconnect.** A person shall not make energy source connections to mechanical systems regulated by this code which have been disconnected or ordered to be disconnected by the code official, or the use of which has been ordered to be discontinued by the code official, until the code official authorizes the re-connection and use of such mechanical systems.

When a mechanical system is maintained in violation of this code, and in violation of a notice issued pursuant to the provisions of this section, the code official shall institute appropriate action to prevent, restrain correct or abate the violation.

## **SECTION 109 MEANS OF APPEAL**

**109.1 Appeals.** Any person or Entity aggrieved by the decision of the code official, or any Board hereunder, may appeal said decision to the Board of Building Appeals in the manner prescribed in Section 121.0 of the Building Code. The fee for said appeal is as prescribed in said Building Code.

## **SECTION 110 BOARD OF STATIONARY ENGINEERS**

**110.1 General.** There is hereby established a Board of Stationary Engineers. The Board shall act in an advisory capacity to the code official in the preparation of rules and regulations regarding installation, use and operation of boilers, steam generators and pressure vessels consistent with the provisions of this code.

**110.1.1 Composition of board.** The Board of Stationary Engineers shall be composed of three members, one member who shall be the code official or duly authorized representative and two other members who shall be appointed by the Mayor.

The two members appointed by the Mayor shall be engineers licensed by the City of Saint Louis under the provisions of this section as Class I licensed Stationary Engineers, with a minimum of five years experience in the operation and maintenance of steam engines, steam boilers or steam turbines. The members of the existing Board of Stationary Engineers shall be replaced only upon the appointment of new members by the Mayor, at which time (and thereafter) there shall not be two members of the Board of Stationary Engineers who work for or are representatives of the same company, entity or international union organization or an affiliate thereof. The Board of Stationary Engineers shall elect its own chairman.

**110.1.2 Duties of the board.** The Board of Stationary Engineers shall give examinations to all applicants for Stationary Engineer's licenses, issue Boiler Operator Certificates of Competency or Stationary Engineer's licenses to those who pass their respective tests, suspend or revoke such certificate or license for failure to maintain the standards imposed by this section of the code, and may order the reinspection of any boiler, steam generator or pressure vessel whenever deemed necessary for public safety.

**110.2 Board sessions.** The Board of Stationary Engineers shall provide for regular meetings and the code official shall act as the secretary to the Board and shall keep the minutes of all proceedings. The Board shall convene for business at least once a month, and at such additional times as the chairman shall designate, to conduct the business of the Board. A majority of the members of the Board of Stationary Engineers shall constitute a quorum. The Secretary shall keep a register of the names and addresses of all successful applicants designating those found to be qualified for the various classes provided herein.

**110.3 Rules and regulations.** The Board of Stationary Engineers shall have the power to adopt such rules and regulations consistent with this section as it may deem necessary for the application of the provisions of this section. Such rules and regulations shall become effective upon approval by the majority of the Board, and shall be on file in the office of the code official, and shall be available to the public upon request.

**110.4 Boiler operator certificate of competency.** The operation of boilers or steam generators which are generating saturated steam in a pressure range of fifteen psig minimum to one hundred and fifty psig maximum each of which boilers has not more than one hundred square feet of rated heating surface shall be at all times in the charge of a certified Boiler Operator. Application for a Boiler Operator's Certificate of Competency is to be made to the code official or duly authorized representative. The code official upon finding that the applicant is thoroughly familiar with the operational principles which concern the safety and care of the boiler or steam generator, shall issue to such applicant a Boiler Operator Certificate of Competency. The certificate is issued for work at a single specific location as designated on the application and is not transferable. The fee for the examination shall be as listed in Table 110.9.

**110.5 Licensing of stationary engineers required.** All Stationary Engineers shall be licensed as to the class as set forth in sections 110.5.1 through 110.5.4.

**110.5.1 Licensing of operators of boilers or steam generators, less than 1500 square foot of heating surface.** Any boiler or steam generator which has not more than 1500 square feet of rated heating surface, and which is rated to generate steam at pressures between fifteen psig and three hundred psig maximum or which is rated to generate hot water above 160 psig and 250oF to 300 psig, and associated equipment, shall be in the charge of an attending Class II or a Class I licensed Stationary Engineer, whenever in operation. Square footage shall be determined by the total input to a single header.

**110.5.2 Licensing of operators of boilers or steam generators in excess of 1500 square feet of heating surface.** Any boiler or steam generator producing saturated or superheated steam above 212oF in excess of fifteen psig having a rated heating surface in excess of one thousand five hundred square feet of hot water or any other liquid as defined in this code, or any boiler or steam generator producing saturated or superheated steam or any high temperature liquid above 212oF in excess of three hundred psig, regardless of rated heating surface, and any steam engine or steam turbine, associated with either of the said boilers or steam generators shall be in the charge of an attending Class I licensed Stationary Engineer, whenever in operation. Square footage shall be determined by the total input to a single header.

**110.5.3 Licensing of operators of ammonia systems from 50 to 100 tons.** Any ammonia system totaling between fifty tons and one hundred tons rated capacity shall be in the charge of an attending Class I or Class II licensed Stationary Engineer where located in any and all buildings, whenever in operation.

**110.5.4 Licensing of operators of ammonia systems 100 tons and over.** Any ammonia system totaling one hundred tons or more rated capacity shall be in the charge of an attending Class I licensed Stationary Engineer where located in any and

all buildings, whenever in operation.

**110.6 Stationary engineer's license applications.** The application for all classes of licenses shall be filed with the Secretary of the Board on the form prescribed by the Board of Stationary Engineers. Within a reasonable time, the Board shall examine all applicants who meet qualifications under Sections 110.6.1 thru 110.6.3 for the various classes of licenses in order to ascertain whether the applicants possess the knowledge, skill, ability and competency required for the class of license applied for, and for safe operation of various equipment. The Board shall issue to such applicants a license upon the Board finding that the applicant possesses the necessary qualifications and has successfully passed the required examination for the type of license sought.

**110.6.1 Qualifications for stationary engineer, class I.** All applicants for a Class I Stationary Engineer's license shall be a citizen of the United States, shall have made application for such citizenship, or shall be authorized to hold employment by the Immigration and Naturalization Service. The applicant shall be at least twenty-one years of age and shall have had at least two years of training under a Class I licensed Stationary Engineer or equivalent training, or shall be registered with the Missouri State Board of Registration for Architects and Professional Engineers as an Engineer or as an Engineer in Training, and shall have been actually employed in the engineering or research division of a power generating plant in an engineering capacity for a minimum of twelve months. The Board may accept twelve months of formal training by a nationally recognized agency in lieu of experience. The applicant shall demonstrate their knowledge, skill, ability and competency to the Board to operate boilers or steam generators of any size or capacity rating which are generating saturated or superheated steam at any pressure in excess of fifteen psig, or hot water or any other liquid as defined in this code, and ammonia systems in excess of one hundred tons capacity, and to operate associated power plant components and auxiliaries, such as steam turbines, engines, air compressors, ammonia systems, pumps, and feed water heaters, electric generators and other equipment.

**110.6.2 Qualifications for stationary engineer, class II.** All applicants for a Class II Stationary Engineer's license shall be a citizen of the United States, shall have made application for such citizenship, or shall be authorized to hold employment by the Immigration and Naturalization Service and shall be at least nineteen years of age. The applicant shall have had at least one year's experience in the operations of steam boilers or steam generators under the supervision of a Class I or Class II Stationary Engineer or equivalent training, or shall have had one year's experience in maintenance work on steam boilers, steam generators and/or steam engines or steam turbines and/or ammonia systems in excess of fifty tons capacity or shall be registered with the Missouri State Board of Registration for Architects and Professional Engineers as an Engineer or as an Engineer in Training. The Board may accept twelve months of formal training by a nationally recognized agency in lieu of experience. The applicant shall demonstrate their knowledge, skill, ability and competency to the Board to operate boilers or steam generators which have not more than one thousand five hundred square feet of rated heating surface and which are generating saturated or superheated steam in a pressure range of fifteen psig minimum to three hundred psig maximum, or hot water or any other liquid as defined in this code and to operate associated compressors, ammonia compressors, pumps, and feed water heaters, electric generators and other equipment.

**110.6.3 Qualifications for Stationary Engineer, Class II Restricted.** The Board of Stationary Engineers shall be permitted to license applicants for a Stationary Engineer's license as Class II Restricted Stationary Engineers upon finding that the applicant is thoroughly familiar with the operating principals which concern the safety and care of the boiler or steam generator. The Class II Restricted Stationary Engineer's license is issued for work at a specific location as designated on the application and is not transferable.

**110.7 Examination (all classes) for stationary engineers.** The examination for a Class II Stationary Engineer's license shall be oral. The examination for Class I Stationary Engineer's license shall be both oral and written, provided that the applicant shall attain a predetermined percentage as set by the Board of Stationary Engineers in the written examination before the applicant becomes eligible for the oral examination. The written examination must be completed within six months from the date of application. If the applicant does not pass either the oral or written examination the applicant shall wait ninety days before filing a new application. The examinations (both written and oral) required by this Section 110 shall be given and administered by independent, third-party testing agencies approved by the Board of Stationary Engineers.

**110.8 Temporary operation by unlicensed persons.** In cases of emergency, and with the approval of the code official, an owner or steam user may appoint a trustworthy experienced person, familiar with the operation of the plant, as a temporary operator in plants where licensed operators are required by this code.

**110.8.1 Permit to operate.** Before a designated person can operate the plant, the code official or duly appointed

representative, shall be notified. An inspection of the plant shall be made to determine the fitness of the appointed operator. If such person is found to be fit, a permit shall be issued by the code official for such person to operate the plant on a temporary basis; such permit shall be issued for no longer than thirty days. After issuance of the permit, inspection of the plant thereafter shall be on a daily basis as long as the operator remains in the temporary classification. An inspection fee shall be charged per inspection to the owner or steam user payable upon receipt of bill; total cost to be determined at the conclusion of the daily inspections. See Table 110.9 for fee schedule.

**110.8.2 Application for license.** Within three working days after permission is granted, the designated operator shall make application to the Board of Stationary Engineers for examination for the class license required for the plant. Application and examination shall be in accordance with the provisions of section 110.6. In the case of a Class I examination the applicant shall complete the written portion of the examination within fourteen days. Both written and oral parts of the examination shall be completed so that the applicant's qualifications for licensing shall be determined within the thirty day period of emergency operation. If the Board of Stationary Engineers determine that the applicant has failed the examination, the applicant's permit to operate on a temporary basis shall be revoked immediately and such person shall not be eligible for reappointment as a temporary operator until the examination has been passed.

**110.9 Licenses and fees.** At the time of the filing of the application, each applicant for a Boiler Operator Certificate of Competency or Stationary Engineer's license, shall pay to the Secretary of the Board of Stationary Engineers a filing fee as set forth in Table 110.9, to cover the cost of the examination given under the provisions of this section. Provided, further, that under no conditions shall said sum, or any part thereof, be refunded if the applicant fails to pass the examination or if the applicant fails to complete the written examination within the prescribed time limit as set by the Board of Stationary Engineers. All monies received by the secretary shall be paid to the City Treasurer. All applicants passing the examination for a Class I or Class II Stationary Engineer's license shall be presented, upon the passage of such examination, with a Stationary Engineer's license for the class for which they have been licensed. All licenses shall be issued for a period of one year from the date of issuance and shall be renewed each year. The fee for licenses renewal shall be as specified in Table 110.9.

**TABLE 110.9  
LICENSE FEES  
BOARD OF STATIONARY ENGINEERS**

| ITEMS   | FEE                                      | DURATION                             | REMARKS AND REQUIREMENTS  |
|---|--|--------------------------------------|---|
| STATIONARY ENGINEER'S LICENSE<br>Examination and Application Fee<br>Class I<br>Class II<br>Renewal Fee<br>Class I<br>Class II | \$25.00<br>\$25.00<br>\$25.00<br>\$25.00 | 1 year<br>1 year<br>1 year<br>1 year |   |
| BOILER OPERATORS CERTIFICATE OF COMPETENCY<br>Examination Fee<br>Renewal  | \$15.00<br>\$15.00                       | 1 year                               | Includes initial certification<br>Issued for one year from date |
| TEMPORARY BOILER PLANT OPERATOR<br>Permit - per day   | \$100.00                                 |                                      | Issued for up to 30 days  |

**110.9.1 License to be displayed.** At all times when boilers, steam generators or associated equipment are in use and are operating, there shall be in charge and attendance a licensed Stationary Engineer of the class designated in Sections 110.5.1 thru 110.5.4. The license shall be displayed in some prominent place where the boilers, steam generators and associated equipment are in use and any licensed Stationary Engineer shall be negligent in the performance of their duties, should they fail to display the license or have an invalid license on display while in attendance of boilers, steam generators and associated equipment in their charge and in operation.

**110.9.2 Renewal.** Boiler Operator Certificates of Competency and Stationary Engineer's licenses shall be renewed

annually by the Board of Stationary Engineers upon the timely payment of an annual renewal fee, which payment shall be made not later than thirty (30) days after the expiration date of said license. In the event payment of the required renewal fee is not made within 30 days after the applicable expiration date of the license, then the license shall be deemed expired and the licensed holder shall not be permitted to perform work requiring a valid license under this Code until the license is reinstated. Licenses that expire because of non-payment of the required renewal fee shall be reinstated automatically upon payment of the fee provided the fee is paid within 120 days of the expiration of the license. Thereafter, expired licenses can be reinstated by the Board of Stationary Engineers for good cause, absent which the license holder must re-apply for, and satisfy the standards for issuance of, a new license. The Board of Stationary Engineers shall have the power to revoke such certificate or license for cause.

**110.9.3 Notice of change of employment.** Every Stationary Engineer or Boiler Operator regulated under the provisions of this section is required to notify the Secretary of the Board of Stationary Engineers, within forty-eight hours thereafter, when they accept or leave employment as a Stationary Engineer or Boiler Operator and to submit the name of their new employer.

**110.10 Penalty.** Any owner or steam user of a boiler, steam generator or associated equipment who shall neglect or refuse to employ a licensed Stationary Engineer of the class designated in Section 110.5, or who allows any unlicensed person to be in charge and attendance of boilers, steam generator or associated equipment requiring a licensed Stationary Engineer, except as provided for in section 110.8, shall, upon conviction thereof, be penalized as set forth in **SECTION FOUR**.

**110.10.1 Penalty for violation by operators.** Any licensed Class II Stationary Engineer or certified Boiler Operator who shall be in charge and attending the operation of a boiler, steam generator or associated equipment in excess of the legal size and capacity, shall, upon conviction thereof, be penalized as set forth in **SECTION FOUR**. In addition to such fine, the license of such Stationary Engineer or the Certificate of Competency of the Boiler Operator shall be suspended for a period not to exceed ninety days or revoked as determined by the Board of Stationary Engineers.

**110.10.2 Suspension of license.** The Board of Stationary Engineers shall order the suspension for not exceeding ninety days, or revocation of a Stationary Engineer license or Boiler Operator Certificate of Competency of any person regulated under the provisions of this section where the Board, after a public hearing, finds that the licensee is addicted to drugs or alcohol, or was under the undue influence of drugs or alcohol while in attendance and performing their duties as a licensed Stationary Engineer or certified Boiler Operator, or has been negligent in the performance of their duties while in attendance of the equipment for which they are licensed so as to endanger the lives and property of persons in the immediate area of such equipment; provided further that such person shall be given a ten day notice of the time and place of such hearing. Such person may be represented by counsel at such hearing before such Board. The Board of Stationary Engineers, at their discretion, may order a new examination for applicants for reinstatement of a license or certificate suspended or revoked under the provisions of this section.

The Board of Stationary Engineers shall also order the suspension for a period not to exceed thirty days, of the Stationary Engineer's license or Boiler Operator Certificate of Competency of any person licensed under the provisions of this section, where the Board, after a public hearing, shall find that the licensee has failed to comply with the provisions of this section. Such person shall be given a ten day notice of such hearing and may be represented by counsel at such hearing.

**110.11 Failure to comply.** Any owner or steam user who fails to comply with the above provisions of this code shall be in violation of this code and the code official shall and is hereby directed to consider the plant unsafe and officially seal the plant out of service.

## SECTION 111

### LICENSING OF MECHANICAL CONTRACTORS, SHEET METAL CONTRACTORS AND HVAC SERVICER-INSTALLER CONTRACTORS

**111.1 License Required.** Except as otherwise provided in this Section 111, hereinafter referred to as "this Section", no individual or business entity shall engage in or perform HVAC Servicer Installer Work, Process Piping System Work, or HVAC Duct System Work, unless licensed under this Section to perform such work. In addition, no person shall hold herself/himself out as being available to perform any work that requires a license under this Section unless she/he shall be licensed as aforesaid, and no partnership, corporation or other legal entity, or person conducting business under a fictitious name shall hold out such entity as being available to perform any work that requires a license under this Section in any advertising medium or publication unless a principal or employee of such entity shall be licensed as aforesaid. No person having obtained any license under this Section shall allow his/her

name or license to be used by another person either for the purpose of obtaining permits, doing business or performing work that requires a license under this Section.

### **111.2 Definitions.**

THE BOARD is the Board of Examiners for Mechanical Licensing of The City of St. Louis.

A CONTRACTOR is an individual or Entity who is licensed under this Section to perform work on any or all of the following: Process Piping Systems, HVAC Duct Systems, HVAC Piping Systems or HVAC systems.

A MECHANICAL CONTRACTOR is an individual or Entity licensed to perform work under this Section who employs at least one Pipefitter Journeyman.

A SHEET METAL CONTRACTOR is an individual or Entity licensed to perform work under this Section who employs at least one Sheet Metal Journeyman.

AN HVAC SERVICER-INSTALLER CONTRACTOR is an individual or Entity licensed to perform work under this Section who employs at least one HVAC Servicer-Installer Journeyman.

A Contractor licensed under this Section who performs work under any of the foregoing categories may take out permits for and perform work that falls under one of the other categories provided such Contractor uses a Journeyman (or an Apprentice under the required supervision and inspection of such Journeyman) who is licensed to perform the specific work involved pursuant to the applicable provisions of this Section.

An ENTITY is any company, corporation, partnership, joint venture or other business establishment, which performs work that requires a license under this Section.

A JOURNEYMAN is anyone who is licensed under this Section to perform work under one of the following categories.

- (A) A Pipefitter Journeyman is anyone who has been licensed under this Section to perform Process Piping System Work.
- (B) A Sheet Metal Journeyman is anyone who has been licensed under this Section to perform HVAC Duct System Work.
- (C) An HVAC Servicer-Installer Journeyman is anyone who has been licensed under this Section to perform HVAC Servicer-installer Work.

An APPRENTICE is anyone who has been licensed pursuant to this Section to perform work that requires a license under this Section under the supervision and inspection of a Journeyman in the employ of a Contractor in one of the following categories:

- (A) A Pipefitter Apprentice is anyone who has been licensed under this Section to perform Process Piping System Work under the supervision and inspection of a Pipefitter Journeyman.
- (B) A Sheet Metal Apprentice is anyone who has been licensed under this Section to perform HVAC Duct System Work under the supervision and inspection of a Sheet Metal Journeyman.
- (C) An HVAC Servicer-Installer Apprentice is anyone who has been licensed under this Section to perform HVAC Servicer-Installer Work under the supervision and inspection of an HVAC Servicer-Installer Journeyman, Pipefitter Journeyman or Sheet Metal Journeyman.

An HVAC DUCT SYSTEM is all or any part of the duct system for a heating, ventilation, or air conditioning system regardless of the materials used and includes ducts, duct fittings, risers, stacks, dampers, casings, recess boxes, roof top unit curbs, radiator enclosures, exhausts, ventilators, frames, grilles, louvers, registers, cabinets, plenums, air filters, fans, motors and accessory air handling equipment and appliances.

HVAC DUCT SYSTEM WORK is all work related to the installation, alteration, reconstruction, repair, replacement and other servicing of an HVAC Duct System as well as HVAC Servicer Installer work as defined herein.

An HVAC PIPING SYSTEM is all or any part of the piping system for a heating, ventilation, or air conditioning system and includes pipes, valves, pipe fittings, pumps, and distribution lines and accessory equipment, including boilers and compressor assemblies.

HVAC PIPING SYSTEM WORK is all work related to the installation, alteration, reconstruction, repair, replacement and other servicing of HVAC Piping Systems as well as HVAC Servicer-Installer work as defined herein.

An HVAC SYSTEM is a heating, ventilation, or air conditioning system or any part thereof, including an HVAC Piping System and/or HVAC Duct System, specifically addressed and regulated in this code.

Note: If an HVAC System consists of multiple individual units or split systems, each such individual unit or split system shall be considered a separate system for purposes of this Section.

A PROCESS PIPING SYSTEM is all or any part of a piping system (excluding Fire Suppression Systems), which falls within one of the following categories:

- (A) A medical gas system.
- (B) An HVAC Piping System.
- (C) A pneumatic system.
- (D) A pressurized or vacuum piping system.
- (E) A fuel gas system.
- (F) An oxygen system.
- (G) A gasoline system not for public sale.

PROCESS PIPING SYSTEM WORK is all work related to the installation, alteration, reconstruction, repair, replacement and other servicing of Process Piping systems as well as HVAC Servicer-Installer work as defined herein.

HVAC SERVICER-INSTALLER WORK is all work related to:

- (A) The installation, alteration, reconstruction, repair, replacement and servicing of equipment of HVAC Systems:
  - (i) that provides no more than 14 tons of air conditioning;
  - (ii) that provides no more than 300,000 BTU's of heating;
  - (iii) that operates at a pressure of more than 15 psi of steam;
  - (iv) that provides of no more than 5000CFM of ventilation; and
  - (v) that provides of no more than 5000CFM of exhaust.

NOTE: In those cases where an HVAC System is composed of individual units or split systems that are no more than 14 tons of air conditioning or 300,000 BTU's of heat which are connected by a common fuel line, that is more than 1 1/4 inches in diameter, or which is under more than 2 psi pressure, the fuel line shall be installed by a licensed Journeyman Pipefitter and/or licensed Apprentice Pipefitter under the supervision and inspection of a licensed Journeyman Pipefitter. The individual units may be installed by licensed HVAC Servicer-Installers.

**111.3 Board of Examiners for Mechanical Licensing.** There is hereby established a Board of Examiners for Mechanical Licensing (hereinafter referred to as "the Board") which shall govern Contractors, Journeymen and Apprentices who perform work under this section.

**111.4 Composition of board.** The Board shall be composed as follows: The Mayor shall appoint: (A) one employing Contractor who performs HVAC System Work, HVAC Piping System Work, Process Piping Work or HVAC Servicer-Installer Work within the City of St. Louis, (B) one registered professional engineer, (C) two Journeymen as that term is defined herein, and (D) one user of a mechanical system subject to this Code which user shall be either an owner, lessee or keeper of any commercial structure with a mechanical system or the agent of such a person. Each of the above shall be a United States Citizen.

The members of the Board shall replace the Board of Examiners of Mechanical Contractors currently in existence within the City of St. Louis pursuant to Section 25.10.030 of the St. Louis City Revised Code. This replacement shall take place gradually over time as follows, and during the period of transition, the current Board of Examiners of Mechanical Contractors shall serve and act as the Board of Examiners for Mechanical Licensing in accordance with the provisions of this Section. The "Contractor" member of the Board (pursuant to Subsection (A) above) shall be appointed upon the determination of the Mayor to replace the "Mechanical

Contractor” now serving on the Board of Examiners for Mechanical Contractors. The “registered professional engineer” member of the Board (pursuant to subsection (B) above) shall be appointed upon the determination of the Mayor to replace the “registered professional engineer” now serving on the Board of Examiners for Mechanical Contractors. The two “Journeymen” members of the Board (pursuant to subsection (C) above) shall be appointed upon the determination of the Mayor to replace the respective two “journeyman pipefitters” now serving on the Board of Examiners for Mechanical Contractors. The “user” member of the Board (pursuant to subsection (D) above) shall be appointed upon the determination of the Mayor to replace the “user” member now serving on the Board of Examiners for Mechanical Contractors.

Upon the re-constitution of the Board pursuant to this section as set forth above and continuing thereafter: (i) there shall not be two members of the Board who work for or are representatives of the same company, Entity or international union organization or an affiliate thereof and the two Journeymen members of the Board shall be from different trades, and (ii) no member appointed to the Board may serve more than two consecutive terms. The Board shall elect one of its members to serve as Chair and another to serve as Vice Chair.

**111.5 Secretary of the Board, Duties.** The duties of the Secretary of the Board of Examiners shall be as stated with respect to similar Boards. The Secretary of the Board shall be nonvoting. The Secretary shall record all meeting notices, shall keep full and complete minutes of all acts and proceedings of said Board, and shall provide all applicants for a license under this Section with proper application forms. The Secretary shall maintain and secure all examinations, examination documents and materials as directed by the Board, review all applications for licenses to determine their completeness within fifteen (15) days of their filing, keep a file of the name and address of every person or firm licensed by the Board and the name and address of every person or firm whose application for a license has been denied, and return all incomplete applications to applicants within fifteen (15) days of determination of incompleteness, specifying the respects in which the application is incomplete. The Secretary shall file with the City Clerk a copy of all rules and regulations adopted by the Board and make such rules and regulations available to all license holders and current applicants.

**111.6 Term of Office, Compensation.** The members of the Board shall hold office for a term of four (4) years or until their successors are duly appointed and qualified by the Mayor.

**111.7 Powers and Duties of the Board of Examiners.** It shall be the duty of the Board to meet once every month and more often if the Board deems necessary for the performance of its duties and to hear and determine any charges or complaints made against licensed Contractors or Journeymen; approve or disapprove all license applications and transact any other lawful business of the Board.

1. At every Board meeting, the Board shall consider and take action to grant or reject all open and properly completed license applications that have been filed at least fifteen (15) days prior to the Board meeting. For any application that is rejected, the Secretary shall notify the applicant in writing of the reasons for rejection, within five (5) days after the Board’s action. Notice of the date, time and place of each Board meeting, together with an agenda of the meeting, shall be made publicly available at least seven (7) days prior to the Board meeting.
2. Subject to the provisions of Section 109.1 above, the Board shall have the power to suspend and revoke any license issued pursuant to this Section for violation of the provisions of this code. All complaints by citizens concerning mechanical installation procedures or rules shall be made to the Board in writing. After a thorough investigation, the Board shall respond to the complaint in writing. The Chair or acting Chair, with the approval of the Board, shall have power to administer oaths, subpoena witnesses and compel the production of books, papers and tangible things and the inspection of premises pertinent to any investigation or hearing authorized by this Section.
3. The Board shall adopt rule and regulations, when and as required at the discretion of the Board, consistent with the provisions of this ordinance and the laws of the City of St. Louis, related to the Board’s powers and duties as herein stated. The Board shall provide reasonable opportunity for public participation and comment in connection with the adoption of any such rules and regulations. A copy of any rules or regulations proposed for adoption by the Board shall be made available for public inspection at least forty-five (45) days prior to the Board meeting at which the adoption is to be considered and notice of such availability shall be included in the notice for at least two Board meetings before the Board may take action on the proposed rule or regulations. During any Board meeting at which a rule or regulation is considered for adoption, the Board shall allow reasonable opportunity for public comment. Such rules and regulations shall become effective upon the majority vote of the Board, and shall be on file in the office of the code official and the office of the City Clerk, and shall be open to public inspection and copying. Copies of all rules and regulations adopted by the Board shall

be mailed to all persons or Entities holding a license under this Section.

4. All applicant records which disclose the applicant's income or a portion thereof shall be returned by the Board to the applicant upon completion of the licensing process. Applicant records which disclose the names of past or present customers of the applicant or his employer shall be retained only for the purpose of use in possible litigation and license revocation hearings and shall not be deemed public records, and no such information shall be available for public inspection.

5. All records, except those to be returned by the Board pursuant to subsection 4 above or those that the Board is authorized to close to the general public under the provisions of R.S.Mo. Ch. 610, shall be open to public inspection and copying during normal working hours, unless otherwise provided by law. Fees for search and duplication of public records shall not exceed the actual cost of document search and duplication. Any documents may be furnished without charge or at a reduced charge when the code official determines that waiver or reduction of the fee is in the public interest because it is likely to contribute significantly to public understanding of the operations or activities of the Board and is not primarily in the commercial interest of the requester. Each request for access to a public record shall be acted upon as soon as possible, but in no event later than the end of the third business day following the date the request is received by the code official. If access to the public record is not granted immediately, the code official shall give a determined explanation of the cause for further delay and the place and earliest time and date that the record will be available for inspection. This period for document production may exceed three days for reasonable cause.

6. The Board shall order the inspection of any mechanical system whenever deemed necessary for the public's safety.

7. The Board shall consider and approve any apprentice training program provided that any such apprentice training program requires a minimum of 7,500 hours of combined on- the-job and classroom training, if it provides an equivalent training program to those certified by the Bureau of Apprenticeship and Training of the U.S. Department of Labor "BAT" (now known as the Office of Apprenticeship Training, Employer and Labor Services ("ATELS")) or to those approved, accredited or certified, as applicable, by any of the other organizations listed in subsection 111.8.1 below. In addition, the Board shall consider and approve any educational or training program or class covering any work that requires a license under this Section, if such program or class is equivalent to one that is offered by a school or organization that is approved, accredited or certified, as applicable, by one of the organizations listed in subsection 111.8.1 below.

8. The Board shall approve and designate those independent, third-party agencies authorized to give and administer examinations for licensure pursuant to this code. All examinations (both written and oral) required by this Section 111 shall be given and administered by independent, third-party testing agencies approved by the Board.

**111.8 Contractor, Journeyman and Apprentice License Issuance.** The Board shall instruct the Mechanical Equipment Inspection Section to issue a license as a Contractor, Journeyman or Apprentice, as applicable (and within the categories of Mechanical Contractor, Sheet Metal Contractor, HVAC Servicer-Installer Contractor, Pipefitter Journeyman, Sheet Metal Journeyman, HVAC Service-Installer Journeyman, Pipefitter Apprentice, Sheet Metal Apprentice or HVAC Servicer-Installer Apprentice, as applicable) upon payment of the required license fees to any person or Entity who satisfies the following criteria for issuance of the applicable license.

**111.8.1 Apprenticeship License.** Applicants shall be issued an apprenticeship license promptly upon submission to the Board of a complete application together with:

1. Proof of enrollment in:

(A) an applicable apprenticeship program certified by the Bureau of Apprenticeship and Training of the United States Department of Labor (BAT/ATELS); OR

(B) a Board approved, equivalent apprenticeship program that includes classroom/laboratory training by Ranken Technical College, Vatterott Educational Center, Jefferson College or Southwest Illinois College or by any other school or organization approved, accredited or certified, as applicable, by:

(i) the Higher Learning Commission, a Commission of the North Central Association of Colleges and Schools;

- (ii) the Accrediting Commission of Career Schools and Colleges of Technology; or
  - (iii) the National Center for Construction Education and Research; OR
- (C) an applicable, integrated 7,500 hour combined classroom and field training apprenticeship program that is conducted by any school or organization approved, accredited or certified, as applicable, by:
- (i) the Higher Learning Commission, a Commission of the North Central Association of Colleges and Schools; or
  - (ii) the Accrediting Commission of Career Schools and Colleges of Technology; or
  - (iii) the National Center for Construction Education and Research;

NOTE: As used in this Section an HVAC Servicer-Installer Apprenticeship Program includes but is not limited to any program certified by BAT/ATELS as a Mechanical Servicer-Installer Apprenticeship Program

OR

2. Presentation by the applicant or any Entity or organization of a written, individual training program providing a total of 7,500 combined hours of educational training or classes and field work or on-the-job training obtained as follows:
- (A) at least 540 classroom hours of educational training or classes covering work that requires a license under this Section (and/or certain exempt work as allowed by the Note to this subsection below) that is conducted by any combination of schools or other organizations approved, accredited, or certified as applicable by:
- (i) the Higher Education Commission, a commission of the North Central Association of Colleges and Schools; or
  - (ii) the Accrediting Commission of Career Schools and Colleges of Technology; or
  - (iii) the National Center for Construction Education and Research; or
  - (iv) the Board pursuant to subsection 111.7.7 above; and
- (B) the balance of the required hours needed to equal 7,500 through field work and/or on-the-job training under the supervision and inspection of a Journeyman licensed under this Section to perform the work involved.

Note: Within the total 540 classroom hours presented as part of any individualized training program pursuant to this subsection above, the individual program must contain a minimum of 480 hours technical instruction in the installation, alteration, reconstruction, repair, replacement and/or servicing of HVAC Systems, HVAC Duct Systems, HVAC Piping Systems and/or Process Piping Systems, as applicable based on the Apprentice license sought by the applicant, and within these 480 hours:

- (i) no more than 75 hours may be introductory level courses; and
- (ii) with respect to individuals seeking a Pipefitter or Sheet Metal license, no more than 75 hours may relate to technical training on work that is exempt from licensure under this code. All technical training on work that is exempt from licensure under this code shall be counted, without limitation, to the full extent required by subsection 111.8.2 below. Individuals seeking an HVAC Servicer-Installer license shall have no limitation on the number of course hours that relate to work that is exempt from licensure under this code.

**111.8.1.1 Upon determination by the Board** that the applicant has satisfied the requirements of this subsection, the Mechanical Equipment Inspection Section shall issue an apprenticeship license to the applicant with "Pipefitting Apprentice, Sheet Metal Apprentice or HVAC Service-Installer Apprentice" plainly marked on it (which determination shall be based on the nature of the program or class in which the applicant has enrolled or has completed), and the apprentice's name and date of issue.

**111.8.2 Journeyman License.** Applicants shall be issued a Journeyman license promptly upon submission of a complete application to the Board together with:

1. proof of
  - (A) a total of 7,500 hours of training and/or experience obtained through:
    - (i) the successful completion of a Pipefitter, Sheet Metal or HVAC Servicer-Installer apprenticeship program conducted by any school or organization approved, accredited or certified, as applicable, as required by this Section 111; or
    - (ii) completion of at least 540 (Five Hundred Forty) hours of educational or training classes, plus 6960 (Six Thousand Six Hundred and Sixty) hours of field work and/or on-the-job training under the supervision and inspection of a Journeyman licensed under this Section to perform the work involved, pursuant to an individual training program as allowed by this Section 111; or
  - (B) 7,500 hours of:
    - (i) HVAC Servicer-Installer Work, which may include all work on HVAC Systems that are exempt from license for an HVAC Servicer-Installer Journeyman license,
    - (ii) Process Piping System Work for a Pipefitter Journeyman license, OR
    - (iii) HVAC Duct System Work for a Sheet Metal Journeyman license.

Notes:

a. In determining whether an applicant has acquired sufficient experience to qualify for a Pipefitter, Sheet Metal or HVAC Servicer Installer Journeyman's license, the Board shall include all of the applicant's experience, as applicable based on the type of Journeyman license sought by the applicant, obtained while installing, constructing, altering, repairing, replacing or servicing Process Piping Systems, HVAC Duct Systems, HVAC Piping Systems or HVAC Systems (as applicable), except for work that is exempt from licensure under this code. All work that is exempt from licensure under this code shall be counted without limitation, provided the work is of a similar nature and technical requirements as work that requires a license under this Section. All experience shall be considered by the Board regardless of where the work was performed, in St. Louis City or elsewhere.

b. For the purposes of determining whether an applicant for a Journeyman license has completed 540 or more hours of educational or training classes pursuant to an individual training program as described in this subsection, the following shall apply:

For each class successfully completed by the applicant, pursuant to the grading system used by the school or organization conducting the class, the applicant shall receive the total number of hours indicated by the school or organization as applying to the work for which the applicant seeks a license (a syllabus, or a transcript or grade sheet or a letter from any Dean or equivalent administrator at the school or organization will satisfy this requirement).

**111.8.2.1** Upon determination by the Board that the applicant has satisfied the above requirements and falls within one of the exceptions set forth in this Section 111, the Secretary shall issue the Journeyman license. Upon determination by the Board that the applicant has satisfied the above requirements and does not fall within one of the exceptions set forth in this Section 111, the Secretary shall give the applicant a written notice; of the date and place of the examination. The cost of the examination(s) shall be paid by the applicant. If the applicant fails to pass the examination, the applicant shall not be permitted to re-take the examination for a period of three (3) months. If the applicant fails to pass the examination a second time, the applicant shall not be permitted to re-take the examination for a period of one (1) year and the applicant shall resubmit a new application and a new application fee. If the applicant passes the examination, a Journeyman license shall be issued.

**111.8.2.2** Effective sixty (60) days after approval of this Ordinance by the Mayor, all licensed Journeyman seeking renewal shall furnish proof of twelve (12) Professional Education Units (24 hours) received within the last three (3) years on the then current Mechanical Code or accepted practices in the performance of work covered by the then current Mechanical Code or equivalent proof of maintaining and improving Journeyman work skills as determined and approved by the Board. Said proof shall be provided at the time of renewal. There may be a carryover of four (4) Professional Education Units (8 hours) in excess of the required hours to the next license cycle. Satisfactory completion of the Professional Education Units administered pursuant to the St. Louis County Mechanical Code shall constitute satisfactory completion under this Section.

**111.8.2.3** There shall be no limitation as to the type or number of Journeyman licenses that can be obtained by an individual.

**111.8.2.4** Notwithstanding any language of this Section to the contrary, any person who possesses a current valid Journeyman license issued by the City of St. Louis shall not be required to acquire any additional experience or training prior to being allowed to take the examination for any other Journeyman's license provided for under this Section. Upon submission to the Board of a completed application by a person licensed under this Section as Journeyman (which application shall not require any proof of the applicant's experience or training) and a forty-five dollar (\$45.00) registration fee, such person shall be permitted to take the examination for an additional Journeyman's license and, upon passage of such examination, shall promptly be issued a Journeyman's license in the trade covered by the examination so passed.

**111.8.3 Mechanical Contractor, Sheet Metal Contractor, Contractor License.** Any Entity, which has in its employ one or more individuals having any of the following qualifications, may submit an application for a Contractor's License:

- a) a minimum of three (3) years verifiable training and/or experience directing and supervising at least one (1) Journeyman; or
- (b) a degree in civil or mechanical engineering from an accredited college and a minimum of one (1) year verifiable training or experience directing and supervising at least one (1) Journeyman; or
- (c) a license for at least three (3) years under the Plumbing Code of St. Louis City or County as a Master Plumber or Master Pipefitter and a minimum of one (1) year verifiable training or experience directing and supervising at least one (1) Journeyman.

Exception: An HVAC Servicer-Installer Journeyman who is the sole proprietor of a company which employs no other Journeyman labor that is required to be licensed by the provisions of this section, may obtain a HVAC Servicer-Installer Contractor's License without employing an individual experienced in directing and supervising Journeyman.

2. The application shall be accompanied by proof of the qualifications of the individual or individuals with the foregoing training or experience and proof of the Journeyman's license.

3. The Secretary will present the complete Contractor's application to the Board for action in accordance with the provisions of this Section above. Upon determination that the applicant has satisfied the requirements of this Section, a license shall be issued.

4. The Contractor's License shall be valid for three (3) years from the date of issue. The Secretary of the Board shall send a notice of renewal to the last-known address of the Contractor, and a thirty (30) day grace period after the expiration shall be given in which renewal shall be given without re-qualification. Failure of the Secretary to provide renewal notice shall not excuse the licensee from filing for the renewal license prior to the expiration of the grace period.

5. The Contractor shall notify the Department of Public Works within ten (10) days of it no longer employs a supervisor who possesses the qualifications set forth herein.

6. There shall be no limitation as to the type or number of Contractor's licenses that an individual or entity can obtain, so long as the applicant satisfies the requirements for each license.

**111.8.4 Examination and Re-Examination.**

- 1. Except as set forth in this Section below, all individuals desiring to be licensed as a Journeyman under

this Section must successfully pass an examination in order to qualify as same.

2. Exceptions:

(a) Every person who has submitted a completed license application for Sheet Metal Journeyman, Pipefitter Journeyman or HVAC Servicer-Installer Journeyman to the Board on or before sixty (60) days after approval of this Ordinance by the Mayor and who meets the experience requirements set forth in this Section above shall not be required to pass an examination.

(b) In determining whether a person qualifies to obtain a license without an examination under the foregoing exceptions, the Board shall consider all of an applicant’s sheet metal experience, pipefitting experience or HVAC system work experience obtained while installing, constructing, altering, repairing, replacing or servicing HVAC Systems during the most recent 12 years, except for work that is exempt from licensure under this code. All work that is exempt from licensure under this code shall be counted without limitation, provided the work is of similar nature and technical requirements as work that requires a license under this Section.

Note: In determining the extent to which the work experience of an applicant for a Journeyman License is exempt or non-exempt under the exceptions to testing, the Board shall only consider the extent to which the nature of the work itself is exempt or non-exempt work regardless of whether such work was performed while an employee of a contractor, owner, lessee, or other entity.

(e) Every person who, as of the effective date of this Ordinance, is licensed under the Plumbing Code of St. Louis City or County as a Journeyman Pipefitter or Journeyman Sprinkler fitter shall not be required to pass an examination to be licensed as a Pipefitter Journeyman or Sprinkler fitter Journeyman under this Section.

**111.8.5 Temporary Project Licenses.** A temporary license shall be issued to a journeyman for up to six (6) months upon submittal to the Secretary of the Board of the name and location of the project and the name of the licensed Mechanical Contractor, Sheet Metal Contractor or HVAC Servicer-Installer Contractor for such project, provided the Board first finds that issuance of said temporary license will not compromise the public safety of St. Louis City residents. The temporary license may be renewed upon application and proof of employment by a licensed contractor.

**111.8.6 Reciprocity.** The Mechanical Equipment Inspection Section shall issue a license as a Contractor, Journeyman or Apprentice, as applicable (and within the categories of Mechanical Contractor, Sheet Metal Contractor, HVAC Servicer-Installer Contractor, Pipefitter Journeyman, Sheet Metal Journeyman, HVAC Servicer-Installer Journeyman, Pipefitter Apprentice, Sheet Metal Apprentice or HVAC Servicer-Installer Apprentice, as applicable) upon payment of the required license fees (without any further action and without the requirement of a Board meeting) to any person or Entity who can show proof of a current and valid license issued by St. Louis County pursuant to St. Louis County, Missouri Ordinance 22,313, provided that the reciprocal issuance of such licenses shall cease if and when the criteria for issuance of a license under St. Louis County Ordinance 22.313 are changed such that such criteria are less stringent than those established in this Section 111.

**111.9 License Applications and Fees.** Each request for a license under this code shall be on an application form provided by the Secretary and shall be accompanied, in the case of an individual applicant, by a 3/4” x 3/4” full face color photograph. The license fees for each license category are as follows:

|                    |                               |
|--------------------|-------------------------------|
| Contractor license | \$100.00 for a 3 year license |
| Journeyman license | \$45.00 for a 3 year license  |
| Apprentice license | \$10.00                       |

Licenses shall be valid for the duration set forth above, or in the case of an initial license issued to a person or Entity holding a St. Louis County license, for the then unexpired term of the St. Louis County license. The fee for any such initial license shall not be prorated. Thereafter, licenses shall be renewed prior to the expiration period noted above. In the event payment of the required renewal fee is not made within 30 days after the application expiration date of the license, then the license shall be deemed expired and the licensed holder shall not be permitted to perform work requiring a valid license under this code until the license is reinstated. Licenses that expire because of non-payment of the required renewal fee shall be reinstated automatically upon payment of the fee provided the fee is paid within 120 days of the expiration of the license.

Thereafter, expired licenses can be reinstated by the Board for good cause, absent which the license holder must re-apply for, and satisfy the standards for issuance of, a new license. There shall be a notice of renewal sent to last known address of the Contractor or Journeyman.

**111.10 Manufacturer and Manufacturer's Representative Restricted License.** A restricted license shall be issued under this Section to any manufacturer or manufacturer's representative and their employees engaged in the supply of equipment and appliances covered by this Section and/or in the supply of parts and/or the performance of service work, repairs, maintenance, start-up, testing or tuning of such equipment and appliances. Such license shall be issued by the Board upon submission by the applicant of evidence that the applicant is a manufacturer of, or has a representative relationship with one or more manufacturers of, equipment and/or appliances covered by this Section and payment of a Forty-Five Dollar (\$45.00) license fee.

Upon such submission, the Secretary shall issue a license in the name of the applicant, identifying the equipment and/or appliance manufacturers with respect to which the license is issued. Such license shall authorize the licensee and its employees to supply parts and perform service work, repairs, maintenance, start, up, testing and/or tuning of any equipment and/or appliances which are supplied by the manufacturers listed on the license. There shall be no restriction on the number of such licenses that are issued to anyone person or Entity. Each such license shall be valid for as long as the licensee remains a manufacturer or a manufacturer's representative of the equipment and/or appliance manufacturers listed in the license. Notwithstanding the foregoing, however, no license shall be required for any manufacturer, manufacturer's representative or their employees to perform work exempted from the requirement for a license pursuant to Section 111.14 below or to perform emergency repair work on any equipment or appliance supplied or represented by the manufacturer or manufacturer's representative.

**111.11 Holder of Certificate of Authority from AS.M.E. or National Board of Boiler and Pressure Vessel Inspectors.** Any Entity which holds appropriate AS.M.E. Certificate of Authority with extension to field work or an "R" Certificate of Authority issued by the National board of Boiler and Pressure Vessel Inspectors shall be authorized to engage in the repair and alteration of boilers, steam generators and pressure vessels which are covered by this code. Any such Entity holding such Certificate of Authority shall be authorized to perform the aforesaid work and shall be issued a license hereunder as a Contractor, provided that such Entity shall pay a registration fee of Forty-Five Dollars (\$45.00), file with the Secretary of the Board a copy of its Certificate or Certificates of Authority and proof of insurance as specified in subsection

**111.12 Certificate of Insurance.** A copy of a Certificate of Insurance for combined \$1,000,000.00 minimum limits liability insurance for bodily injury and property damage shall be submitted to the Mechanical Section on or before January 15th of each year by a Contractor. The certificate shall state the insurance company's name, address, telephone number, kind of insurance, coverage and policy number. Permits will not be issued to contractors who fail to file a Certificate of Insurance with the Mechanical Section annually or whose insurance has lapsed.

**111.14 License Exemptions.** The following work shall not require a license under this Section:

1. Work performed on an owner's own facility by personnel directly in the employment of the owner of the facility, or a business affiliate of such owner. For purposes of this exemption, a "business affiliate" shall mean any parent, subsidiary or sister corporation of the owner and any other corporation, partnership, limited liability company or joint venture in which the owner or its parent, subsidiary or sister company has an ownership interest.
2. Installation, repair and replacement of portable heating, cooling and refrigeration equipment. (Portable equipment is not permanently installed into or onto a structure or premises, it is not directly wired or piped, it is not connected to duct work, and it does not require the venting of combustion products.)
3. Installation, repair and replacement of domestic stoves, ranges, dryers and other domestic appliances.
4. Work for a public utility regulated by the Missouri Public Service Commission.
5. System installation, start-up, warranty service or warranty repair work that is performed by a technician trained and certified by the manufacturer of that system to perform such work.
6. Work historically and traditionally performed by boiler makers, except for repair and alteration of boilers, steam generators and pressure vessels with respect to which the provisions of Section 111.11 shall apply.
7. Installation, repair and replacement of elevators, escalators, dumbwaiters, moving walks, hoists, automotive lifts,

conveyors, freight lifts, and manlifts.

8. Work which does not require a permit under the provisions of this code.
9. Receiving, unloading, moving, storing, hoisting, setting, aligning and leveling of machinery and related equipment.
10. Fabrication and installation of process ducts and process sheet metal blow pipe systems.
11. Any refrigeration work involving less than 2 ~ tons of refrigeration including but not limited to such work on reach-in coolers, walk-in coolers, water coolers, beverage and beer dispensing machines and related equipment, beverage coolers, soda carbonated systems, reach-in freezers and walk-in freezers. In those cases where any refrigeration system is composed of several individual but connected units or split systems, each such individual unit or split system shall be considered a separate unit or system for purposes of this exemption.
12. Minor repairs or replacements to any existing equipment or systems that are part of a commercial, industrial, manufacturing, or process facility, including but not limited to ordinary repairs for the purpose of maintenance and service of equipment and systems, the repair or replacement of any minor part of a piece of equipment, provided such repair does not alter the approval of the equipment or system, the replacement of piping within the heating and cooling equipment, replacement of leaking or defective valves, fittings or connections of system components, changing of belts, parts, filters or similar items, lubrication of equipment, testing and balancing of equipment and systems and similar service work.

The following Chapters and Sections of Ordinances 65021 and 65926 are modified, amended and supplemented as follows:

## CHAPTER 2

Change Section 201.3 to read as follows:

**201.3 Terms defined in other codes.** Where terms are not defined in this code and are defined in the building code, electrical code, fire code, fuel gas code or the plumbing code, such terms shall have meanings ascribed to them as in those codes.

Add Section 201.5 to read as follows:

**201.5 Referenced other codes and standards.** Any codes or standards referenced in this code shall be taken to mean the applicable City of St. Louis code.

### DEFINITIONS

*Add the following definitions:*

**BASE FLOOD ELEVATION.** A reference point, determined in accordance with the building code, based on the depth or peak elevation of flooding, including wave height, which has a 1 percent (100-year flood) or greater chance of occurring in any given year.

**BUILDING CODE.** The building code adopted by the City of St. Louis.

**ELECTRICAL CODE.** The electrical code adopted by the City of St. Louis.

**FIRE CODE.** The fire code adopted by the City of St. Louis.

**FLEXIBLE AIR CONNECTOR.** A flexible air duct not having certain flame penetration, puncture and impact tests.

**FLEXIBLE AIR DUCT.** A flexible air duct tested in accordance with Underwriters Laboratory's *Standard for Factory made Duct Materials*, UL-181, and installed in accordance with the conditions of its UL listing. Separate installation limitations for flexible air connectors and flexible air ducts are identified in NFPA Standard 90A.

**PLUMBING CODE.** The plumbing code adopted by the City of St. Louis.

**PORTABLE COOKING APPLIANCE.** A single non-permanent cooking appliance (not attached with screws, clamps or other fastening devices) which is electrically cord and plug connected and/or gas-fired using listed and labeled gas convenience outlets used in conjunction with listed and labeled gas appliance connectors. A portable cooking appliance shall be counter-or table-top

mounted; shall be less than 2 feet (610 mm) in any dimension; and shall weigh less than 100 pounds (454 kg). The owner or operator of a portable cooking appliance shall be able to provide the Mechanical Inspection Section with manufacturer's information documenting the above information.

**WORKMANLIKE.** Executed in a skilled manner, e.g., generally plumb, level, square, in line, undamaged and without marring adjacent work.

### **CHAPTER 3 GENERAL REGULATIONS**

#### **SECTION 301 GENERAL**

Add Section 301.16 to read as follows:

**301.16 Annual Inspections.** Annual inspections shall be performed by the code official on the following mechanical equipment: auto lifts, boilers, unfired pressure vessels, refrigeration systems for which monitoring equipment is required and equipment used for smoke control

**Exception:** Boilers serving 6 or fewer residential dwelling units.

#### **SECTION 302 PROTECTION OF STRUCTURE**

Add Section to read as follows:

**302.6 Stud Guards.** When the edge of bored holes is less than one inch (25mm) from the edge of a stud or joist, and when notched studs or joists are covered, stud guards shall be installed to protect service lines from fastener damage.

#### **SECTION 304 INSTALLATION**

Add Section 304.1.1 to read as follows:

**304.1.1 Heating Equipment.** All heating equipment shall be permanently installed.

Add Section 304.13 to read as follows:

**304.13 Equipment Guards.** Pulleys, belts, gears and similar equipment shall be protected by an approved guard.

Change Section 1001 to read as follows:

#### **SECTION 1001 GENERAL**

**1001.1 Scope.** In addition to the other provisions of this code, this chapter shall govern the installation, alteration, and repair of water heaters, boilers and pressure vessels. The provisions of the ASME Code for Boilers and Pressure Vessels as listed in Chapter 15 shall apply.

##### **Exceptions:**

1. Pressure vessels used for unheated water supply.
2. Portable pressure vessels and Interstate Commerce Commission containers.
3. Containers for liquefied petroleum gases, bulk oxygen and medical gas.
4. Pressure vessels having a volume of 5 cubic feet (0.14 m<sup>3</sup>) or less operating at pressures not exceeding 250 psi (1724 kPa) and located within occupancies of Use Groups B, F, H, R, S and U.
5. Pressure vessels used in refrigeration systems that are regulated by Chapter 11 of this code.
6. Pressure tanks used in connection with coaxial cables, telephone cables, power cables and other similar humidity control systems.
7. Any boiler or pressure vessel subjected to inspection by federal or state inspectors.

**1001.2 Periodic inspections.** All boilers, steam generators and pressure vessels subject to the provisions of this code shall be inspected annually by the code official or representative. The inspection shall be as thorough as circumstances permit.

**Exception:** Heating boilers or pressure vessels which are located in buildings of Use Group R-3 or Use Group R-2 having six dwelling units or less.

**1001.3 Certificate of inspection.** A boiler, steam generator or pressure vessel subject to the provisions of this code shall not be placed in operation until a sticker denoting inspection and approval has been applied to the vessel.

**1001.4 Major repairs.** Welded repairs to boilers, steam generators and pressure vessels subject to the provisions of this code shall be performed only by those organizations which possess the appropriate ASME Certificate of Authority with extension to field work or an "R" Certificate of Authority issued by the National Board of Boiler and Pressure Vessel Inspectors. A permit shall be required for such work. The fee shall be the same as the fee for installation of the vessel as set forth in Table 106.5.2. A hydrostatic test shall be performed on the vessel before it is returned to service.

**1001.5 Condemnation.** Any boiler or pressure vessel which, in the opinion of the code official, constitutes a hazard shall be deemed unsafe and sealed out of service.

Change Sections 1002.1 thru 1002.3 to read as follows:

**1002.1 General.** Potable water heaters and hot water storage tanks shall be listed and labeled and installed in accordance with the manufacturer's installation instructions, the plumbing code and this code. All water heaters shall be capable of being removed without first removing a permanent portion of the building structure. The potable water connections and relief valves for all water heaters shall conform to the requirements of the plumbing code. Domestic electric water heaters shall comply with UL 174 or UL 1453. Commercial electric water heaters shall comply with UL 1453. Oil-fired water heaters shall comply with UL 732.

**1002.2 Water heaters utilized for space heating.** Water heaters utilized both to supply potable hot water and provide hot water for space-heating applications shall be listed and labeled for such applications by the manufacturer and shall be installed in accordance with the manufacturer's installation instructions and the plumbing code.

**1002.3 Supplemental water-heating devices.** Potable water-heating devices that utilize refrigerant-to-water heat exchangers shall be approved and installed in accordance with the plumbing code and the manufacturer's installation instructions.

Change Section 1004.6 to read as follows:

**1004.6 Boiler rooms and enclosures.** Boiler rooms and enclosures and access thereto shall comply with the building code and Chapter 3 of this code. Boiler rooms shall be equipped with a floor drain or other approved means for disposing of liquid waste. In addition, except for one- and two-family dwellings or when the boiler is entirely within a dwelling unit, all other boilers or combination boilers shall be installed in a room protected by an enclosure designed to prevent unauthorized entry. Storage or living quarters shall not be permitted in any boiler or similar heating equipment room.

Change Sections 1005.1 and 1005.2 to read as follows:

**1005.1 Valves.** Every boiler or modular boiler shall have shutoff valve in the supply and return piping. For multiple boiler or multiple modular boiler installations, every boiler or modular boiler shall have individual shutoff valves in the supply and return piping.

**1005.2 Potable water supply.** The water supply to all boilers shall be connected in accordance with the plumbing code.

Change Section 1006.1 to read as follows:

**1006.1 Safety valves for steam boilers.** All steam boilers shall be protected by safety valves as required by the ASME Code for Boiler and Pressure Vessels listed in Chapter 15.

Change Section 1006.6 to read as follows:

**1006.6 Safety and relief valve discharge.** Safety and relief valve discharge pipes shall be of rigid pipe that is approved for the temperature of the system. The discharge pipe shall be the same diameter as the safety or relief valve outlet. Safety and relief valves shall not discharge so as to be a hazard, a potential cause of damage or otherwise a nuisance. High-pressure-steam safety valves shall be vented to the outside of the structure. Where a low-pressure safety valve or a relief valve discharges to the drainage system, the installation shall conform to the plumbing code.

*Change Sections 1008.1 and 1008.2 to read as follows:*

**1008.1 General.** Every steam boiler shall be equipped with one gate valve and one quick-opening blow-off valve in series in each blow-down line. The valves shall be installed in the opening provided on the boiler. The minimum size of the valve shall be the size specified by the boiler manufacturer or the size of the boiler blow-off-valve opening.

**1008.2 Discharge.** Blow-off valves shall discharge to a safe place of disposal. Where discharging to the drainage system, the installation shall conform to the plumbing code.

*Change Section 1009.3 to read as follows:*

**1009.3 Open-type expansion tanks.** Open-type expansion tanks shall be located a minimum of 4 feet (1219 mm) above the highest heating element. The tank shall be adequately sized for the hot water system. An overflow with a minimum diameter of 1 inch (25.4 mm) shall be installed at the top of the tank. The overflow shall discharge to the drainage system in accordance with the plumbing code.

*Add Section 1011.1.1 to read as follows:*

**1011.1.1 Test of existing vessels.** The pressure for vessels previously in service shall be as specified in the National Board Inspection Code listed in Chapter 15.

*Add Section 1012 to read as follows:*

**SECTION 1012  
BLOWOFF TANKS**

**1012.1 General.** Blowoff tanks shall be designed and fabricated in accordance with Section VIII of the ASME Boiler Code as listed in Chapter 15 and shall be so stamped.

**1012.1.1 Boilers less than 100 psi.** For boilers carrying one hundred psi steam pressure or less, the heads and shell shall be constructed of not less than one-fourth inch steel or equivalent strength material.

**1012.1.2 Boilers greater than 100 psi.** For boilers carrying in excess of one hundred psi pressure, tanks shall be fabricated of materials designed for the pressures carried.

**1012.2 Size.** The size of the tank shall be indicated by the blow down requirements, and the tank installed shall be large enough to blow down one gauge glass of water from one boiler or from any one of a battery of boilers interconnected. The size of the tank shall be of sufficient capacity so the blow down water from the boiler will only fill one-half the capacity of tank, and the remaining volume of the tank will be available for the vapor displacement.

**1012.3 Discharge.** The discharge from the boiler or boilers shall enter the tank above the high water level or surface of the water in such tank. A baffle plate shall be installed in the tank in line with the inlet pipe from the boiler and shall be at least twelve inches from the discharge opening from the boiler into the tank. The outlet opening or discharge from the tank shall be at least two times the area of the inlet pipe, and such outlet pipe shall have an internal pipe built into the tank, extending downward to within four inches of the bottom of the tank. The discharge pipe shall be connected to a sewer through a running trap or to an approved leaching well.

**1012.4 Venting.**

**1012.4.1 Vent pipe size.** All blow-off tanks shall be properly vented to the outside atmosphere. Such vent pipes shall be at least four times the area of the inlet pipe from the boiler, and such pipe shall not be less than two inch iron pipe size.

**1012.4.2 Pipe discharge.** The vent pipe shall be run as directly as possible to the outside atmosphere and in a suitable location so that any steam or water discharged by the blow down of the boiler would not be dangerous or injurious to life.

**1012.4.3 Vent obstructions.** The vent shall be free of any pockets or sags that might collect or hold water or cause an obstruction of the pipe and pressure buildup in the tank. The end of the vent pipe shall be protected from the possibility of any obstruction.

**1012.5 Manhole.** Each blow down tank shall be provided with a suitable manhole for the inspection and cleaning of the tank.

*Add Section 1013 to read as follows:*

**SECTION 1013  
RETURN CONDENSATE**

**1013.1 Maximum temperature.** The return condensate from a building heated by a central steam supply shall be permitted to be discharged either into a condensate return system or wasted into a sewer drain connection or approved leaching well. This condensate when discharging into a sanitary sewer system shall not be in excess of one hundred forty degrees Fahrenheit (140oF) and shall discharge into an open floor drain or a special drain connection or approved receptor. If the floor drain or drain connection to the sewer is above the level of the return piping so that it cannot flow by gravity, an automatic sump pump shall be installed to pump the condensate from the sump to the sewer drain.

*Add Section 1014 to read as follows:*

**SECTION 1014  
FIELD ASSEMBLY**

**1014.1 Welding.** Any welding required during assembly shall be performed by welders employed and qualified by companies in possession of the appropriate ASME Certificate of Authorization.

*Change Section 1101.4 to read as follows:*

**1101.4 Water connection.** Water supply and discharge connections associated with refrigeration systems shall be made in accordance with this code and the plumbing code.

Change Section 1101.9 to read as follows:

**1101.9 Refrigerant discharge.** Fire department shall be notified immediately upon the automatic or manual discharge of refrigerant from systems having a refrigerant circuit contain more than 220 pounds (100 kg) of group A1 or 30 pounds (14 kg) of any other group refrigerant. Refrigerant shall not be discharged except in an emergency.

**Exception:** Notification is not required for any of the following conditions:

1. Refrigeration systems operating at pressures below atmospheric and incorporating automatic purge systems.
2. Incidental operation of automatic pressure relief valves resulting in minor release of the refrigerant charge.
3. Incidental minor releases associated with service operations after system pump-down has been accomplished.

*Change Section 1105.3 to read as follows:*

**1105.3 Refrigerant detector.** Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or sampling tube that draws air to the detector, shall be located in an area where the refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in Table 1103.1 for the refrigerant classification. Detectors and alarms shall be placed in approved locations.

**Exception:** Detectors are not required for ammonia systems where the machinery room complies with section 1106.3.

*Change Sections 1106.5 thru 1106.5.3.5 to read as follows:*

**1106.5 Remote controls.** Remote control of the mechanical equipment and appliances located in the machinery room shall be provided at an approved location immediately outside the machinery room and adjacent to its principal entrance.

**1106.5.1 Refrigeration system.** A clearly identified switch of the break-glass type shall provide off-only control of electrically energized equipment and appliances in the machinery room, other than refrigerant leak detectors and machinery room ventilation.

**1106.5.2 Ventilation system.** A clearly identified switch of the break-glass type shall provide on-only control of the machinery room ventilation fans.

**1106.5.3 Emergency control box.** Emergency control boxes shall be provided for refrigeration systems required to be equipped with a treatment system, flaring system or ammonia diffusion system.

**1106.5.3.1 Location.** Emergency control boxes shall be located outside of the building at an approved accessible location. All

portions of the emergency control box shall be 6 feet (1829 mm) or less above the adjoining grade.

**1106.5.3.2 Construction.** Emergency control boxes shall be of iron or steel not less than 0.055 inch (1.4 mm) in thickness and provided with a hinged cover and lock.

**1106.5.3.3 Operational procedure.** Valves and switches shall be identified in an approved <sup>25</sup> manner as to the sequential procedure to be followed in the event of an emergency.

**1106.5.3.4 Identification.** Emergency control boxes shall be provided with a permanent label on the outside cover reading: FIRE DEPARTMENT USE ONLY - REFRIGERANT CONTROL BOX, and including the name of the refrigerant in the system. Hazard identification in accordance with NFPA 704 shall be posted inside and outside of the control box.

**1106.5.3.5 Instructions.** Written instructions and information shall be provided and located in the emergency control box designating the following information:

1. Instructions for suspending operation of the system in the event of an emergency.
2. The name, address and emergency telephone numbers to obtain emergency service.
3. The location and operation of emergency discharge systems.

*Change Section 1105.8 to read as follows:*

**1105.8 Emergency pressure control system.** Pressure relief valves for refrigeration systems containing flammable, toxic or highly toxic refrigerant or ammonia shall discharge in accordance with ASHRAE 15.

*Change Section 1106.6 to read as follows:*

**1106.6 Emergency signs.** Refrigeration units or systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg) of any other group refrigerant shall be provided with approved emergency signs, charts and labels in accordance with NFPA 704. Hazard signs shall be in accordance with Table 1103.1 for the classification of refrigerants listed therein.

*Add Exception to Section 1107.2 to read as follows:*

**Exception:** Pipes that are adequately protected from potential damage may be located less than 7 feet 3 inches from the floor.

*Add Section 1110 to read as follows:*

**SECTION 1110  
RESIDENTIAL AIR CONDITIONERS**

**1110.1 Permits.** Mechanical permits shall be required for residential air conditioning units.

**1110.2 Residential split systems.** When a condensing unit for residential uses (R- 1, R-2 or R 3) is to be located on grade, it shall not be located in front of the building.

**1110.3 Condenser foundations.** All condensing units mounted on grade must be located on a level, two inch (2") thick concrete pad or a level, two inch (2") thick plastic pad or other foundation approved by the code official prior to installation.

**1110.4 Protection of refrigerant lines.** All piping installed above grade, or underground, shall be protected from damage and corrosion in keeping with recognized standard practice and the recommendations of the manufacturer.

**1110.5 Units in areaways.** Where areaways less than four feet in width exist between buildings, all window units shall be installed not less than seven feet above grade.

*Change Section 1201.1 to read as follows:*

**1201.1 Scope.** The provisions of this chapter shall govern the construction, installation, alteration and repair of hydronic piping systems. This chapter shall apply to hydronic piping systems that are parts of heating, ventilation and air-conditioning systems. Such

pipng systems shall include steam, hot water, chilled water, steam condensate and ground source heat pump loop systems. Potable cold and hot water distribution systems shall be installed in accordance with the plumbing code.

*Add Section 1201.3 to read as follows:*

**1201.3 Ground source heat pump loop systems.** Ground source heat pump loop systems shall be installed a minimum of 10 feet (3048 mm) from the property line

*Change Section 1204.1 to read as follows:*

**1204.1 Insulation characteristics.** Pipe insulation shall be tested in accordance with ASTM E 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1.

**Exception:** The maximum flame spread index and smoke-developed index shall not apply to one- and two-family dwellings.

*Delete Section 1204.2.*

*Change Section 1206.2 to read as follows:*

**1206.2 System drain down.** Hydronic piping systems shall be designed and installed to permit the system to be drained. Where the system drains to the plumbing drainage system, the installation shall conform to the requirements of the plumbing code.

*Change Sections 1206.3 and 1206.4 to read as follows:*

**1206.3 Protection of potable water.** The potable water system shall be protected from backflow in accordance with the plumbing code.

**1206.4 Pipe penetrations.** Openings for pipe penetrations in walls, floors or ceilings shall be larger than the penetrating pipe. Openings through concrete or masonry building elements shall be sleeved. The annular space surrounding pipe penetrations shall be protected in accordance with the building code.

*Change Section 1301.1 to read as follow:*

**1301.1 Scope.** This chapter shall govern the design, installation, construction and repair of fuel oil storage and piping systems. The storage of fuel oil exceeding the limitation of this chapter and flammable and combustible liquids shall be in accordance with the fire code.

*Change Section 1301.2 to read as follows:*

**1301.2 Storage systems.** Fuel-oil storage systems shall comply with the fire code. Fuel-oil piping systems shall comply with the requirements of this code.

*Change Section 1401.2 to read as follows:*

**1401.2 Potable water supply.** Potable water systems shall be protected against contamination in accordance with the plumbing code.

*Modify Chapter 15 by adding the following:*

**ANSI**

NB-23 National Board Inspection Code . . . . . 1011.1.1

**ASME**

ASME-98 Boiler & Pressure Vessel Code  
 Sections I thru X . . . . . 1001.1, 1001.4, 1004.1, 1006.1  
 . . . . . <sup>40</sup>1011.1, 1012.1

**CODES**

BNFPC-99 BOCA National Fire Prevention Code

**NFPA**

50-1990 Bulk Oxygen Systems on Consumer Sites . . . . . 313.3  
 5 1-1992 Oxygen - Fuel Gas Systems for Welding, Cutting and Allied Processes . . . . . 313.3

54-1992 National Fuel Gas Code ..... 1301.8, 1304.18  
70-1999 National Electrical Code  
90A-1993 Standard for the Installation of Air Conditioning and Ventilating Systems ..... 202  
96-1994 Cooking Equipment, Vapor Removal ..... 506.1, 506.3  
99C-93 Gas and Vacuum Systems ..... 313.1, 313.2  
704-1990 Fire Hazards of Materials, Identification

**SECTION FOUR.**

Subject to the provisions of Sections 108.5 and 108 above, any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof, or who shall erect, construct, alter, extend, repair, remove, demolish, use or occupy any building, structure or premises or equipment regulated by this code in violation of an approved construction document or directive of the code official or the Board of Building Appeals, or of a permit, license or certificate issued under the provisions of this code, shall, upon conviction thereof, be punished by a fine of not more than five hundred dollars, or by imprisonment not exceeding ninety days, or both such fine and imprisonment. Each day that a violation continues shall constitute a separate and distinct offense.

**SECTION FIVE.**

That nothing in this Ordinance or in the Mechanical Code hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section One of this Ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this Ordinance.

**SECTION SIX.**

If a section, subsection, sentence, clause or phrase of this code is, for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

**SECTION SEVEN.**

This being an ordinance necessary for the immediate preservation of the public safety, it is hereby declared to be an emergency measure and shall become effective immediately upon its approval by the Mayor, but the provisions shall not be enforced until sixty (60) days after approval of this Ordinance by the Mayor.

**Approved: April 21, 2010**