

State of Iowa



**IOWA STATE
MECHANICAL CODE**

SEPTEMBER 2019

Plumbing and Mechanical Systems Board
Iowa Department of Public Health
321 E. 12th Street
Des Moines, Iowa 50319

FOREWORD

Effective September 18, 2019, the International Mechanical Code (IMC), 2018 edition, as published by the International Code Council (ICC) is the State Mechanical Code for Iowa.

The provisions of the IMC are adopted by reference as the requirements for the design, installation, maintenance, alteration, and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings, with the amendments specified herein.

This document is the administrative rules (641 Iowa Administrative Code chapter 61) adopting the 2018 IMC and amending it.

Copies of the IMC may be obtained from:

International Code Council
4051 West Flossmoor Road
Country Club Hills, IL 60478
1-800-786-4452

Copies of this pamphlet (Iowa State Mechanical Code – September 2019) may be downloaded from our website at:

<http://idph.iowa.gov/PMSB>

Click on the link labeled Iowa Code or contact:

Plumbing and Mechanical Systems Board Office

Phone: 1-866-280-1521

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IOWA STATE MECHANICAL CODE

641—61.1(105) Definitions. The following definitions apply to this chapter:

“Ambulatory health care facility” means a facility or portion thereof used to provide services or treatment that provides, on an outpatient basis, treatment for one or more patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; or provides, on an outpatient basis, anesthesia that renders the patient incapable of taking action for self-preservation under emergency conditions without the assistance of others.

“Hospice” means a facility licensed or seeking licensure pursuant to Iowa Code section 135J.2.

“Hospital” means a facility licensed or seeking licensure pursuant to Iowa Code chapter 135B.

“Intermediate care facility for persons with an intellectual disability” means a facility licensed or seeking licensure pursuant to Iowa Code section 135C.2(3) “c.”

“Life Safety Code” means the 2000 edition of the Life Safety Code of the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, or the most recent version of the Life Safety Code adopted by reference by the federal Centers for Medicare and Medicaid Services.

“Nursing facility” means a facility licensed or seeking

licensure pursuant to Iowa Code section 135C.6, including a nursing facility for intermediate care or a nursing facility for skilled care.

641—61.2(105) Adoption by reference. The provisions of the International Mechanical Code, 2018 edition, published by the International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478, are hereby adopted by reference as the requirements for the design, installation, maintenance, alteration, and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings, with the following amendments:

61.2(1) Delete section 101.1.

61.2(2) In section 101.2, delete the phrase “International Fuel Gas Code” and insert in lieu thereof “NFPA 54, National Fuel Gas Code, 2015 edition; NFPA 58, Liquefied Petroleum Gas Code, 2014 edition; the provisions of 661—Chapter 226; and the state plumbing code.”

61.2(3) Delete section 103 and insert in lieu thereof the following new section 103.1:

103.1 Local authority. Local jurisdictions may administer the permit, inspection, testing, and enforcement provisions contained in this code. Permit, inspection, testing, and enforcement provisions contained in this code shall not be administered by the Plumbing and Mechanical Systems Board or the state.

61.2(4) Amend section 304.11 by deleting the last sentence and inserting in lieu thereof the following new exception:

Exception: Guards are not required where permanent fall arrest/restraint anchorage connector devices that comply with ANSI/ASSE Z 359.1 are affixed for use during the entire lifetime of the roof covering. The devices shall be evaluated for possible replacement when the entire roof covering is replaced. The devices shall be placed not more than 10 feet (3048 mm) on center along hip and ridge lines and placed not less than 10 feet (3048 mm) from roof edges and the open sides of walking surfaces.

61.2(5) Delete section 306.2 and insert in lieu thereof the following new section:

306.2 Appliances in rooms and closets. Rooms and closets containing appliances shall be provided with a door and an unobstructed passageway measuring not less than 36 inches wide and 80 inches high. A level service space not less than 30 inches deep and 30 inches wide shall be present at the front service side of the appliance with the door open.

61.2(6) Delete section 401.1 and insert in lieu thereof the following new section:

401.1 Scope. This chapter shall govern the ventilation of spaces within a building intended to be occupied. These buildings shall meet either the requirements of ASHRAE Standard 62.1, "Ventilation for Acceptable Indoor Air Quality," 2016 edition, published by the American Society of Heating, Refrigeration, and Air-Conditioning Engineers, 1791 Tullie Circle N.E., Atlanta, GA 30329, or the

requirements contained in this chapter. Mechanical exhaust systems, including exhaust systems serving clothes dryers and cooking appliances; hazardous exhaust systems; dust, stock, and refuse conveyor systems; subslab soil exhaust systems; smoke control systems; energy recovery ventilation systems; and other systems specified in Section 502 shall comply with Chapter 5.

61.2(7) Add the following footnote “i” related to the gym, stadium, arena (play area) category of the sports and amusement occupancy classification in Table 403.3.1.1, Minimum Ventilation Rates:

i. When combustion equipment is intended to be used on the playing surface, additional dilution ventilation and/or source control shall be provided.

61.2(8) Add the following footnote “j” to Table 403.3.1.1 anywhere the term “smoking lounges” appears:

j. For ventilation purposes, “smoking” includes both combustible tobacco products and accessories and electronic smoking devices and accessories.

61.2(9) Delete section 504.8.2 and insert in lieu thereof the following new section:

504.8.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined by screws or similar fasteners that protrude into the inside of the duct.

61.2(10) Delete subsection 506.3.13.3 and insert in lieu thereof the following new subsection:

506.3.13.3 Termination location. Exhaust outlets shall be located not less than 10 feet (3048 mm) horizontally from parts of the same or contiguous buildings, adjacent buildings and adjacent property lines and shall be located not less than 10 feet (3048 mm) above the adjoining grade level. Exhaust outlets shall be located not less than 20 feet horizontally/vertically from or not less than 5 feet above air intake openings and operable doors and windows into any building.

61.2(11) Delete section 508.1.1 and insert in lieu thereof the following new section:

508.1.1 Makeup air temperature. All kitchen makeup air systems shall be verified by a certified TAB (testing and balance) contractor to heat makeup air to within 10 degrees of room temperature set point. The TAB contractor shall be certified by NEBB, TABB, or other certifying organization as approved by the Authority Having Jurisdiction.

61.2(12) Amend section 601.5 by adopting new paragraph “9” as follows:

9. Return air openings shall be located at least 18 inches from supply air openings. Air throw shall be directed away from return air openings to reduce short cycling of air. Exception: Factory-made concentric duct terminations.

61.2(13) Delete section 604.3 and insert in lieu thereof the following new section:

604.3 Coverings and linings. Coverings and linings, including adhesives where used, shall have a flame spread index of not more than 25 and a smoke-development index of not more than 50, when tested in accordance with ASTM E84 or UL 723, using the specimen preparation and mounting procedures of ASTM E2231. Duct coverings and linings shall not flame, glow, smolder or smoke when tested in accordance with ASTM C411 at the temperature to which they are exposed in service. The testing temperature shall not fall below 250°F (121°C). Coverings and linings shall be listed and labeled. The use of an air gap to meet R-value requirements for duct insulation shall be prohibited.

61.2(14) Delete appendix B.

61.2(15) Delete all references to the “International Plumbing Code” and insert in lieu thereof “state plumbing code.”

641—61.3(105) Hospitals and health care facilities.

61.3(1) A hospital that is required to meet the provisions of the state mechanical code shall be deemed to be in compliance with the fire safety requirements of the state mechanical code if the hospital is in compliance with the provisions of rule 661—205.5(100). In any other case in which an applicable requirement of the Life Safety Code is inconsistent with an applicable requirement of the state mechanical code, the hospital shall be deemed to be in compliance with the state mechanical code requirement if the Life Safety Code requirement is met.

61.3(2) A nursing facility or hospice that is required to meet the provisions of the state mechanical code shall be deemed to be in compliance with the fire safety requirements of the state mechanical code if the nursing facility or hospice is in compliance with the provisions of rule 661—205.10(100). In any other case in which an applicable requirement of the Life Safety Code is inconsistent with an applicable requirement of the state mechanical code, the nursing facility or hospice shall be deemed to be in compliance with the state mechanical code requirement if the Life Safety Code requirement is met.

61.3(3) An intermediate care facility for persons with an intellectual disability or intermediate care facility for persons with mental illness that is required to meet the provisions of the state mechanical code shall be deemed to be in compliance with the fire safety requirements of the state mechanical code if the intermediate care facility is in compliance with the provisions of rule 661—205.15(100). In any other case in which an applicable requirement of the Life Safety Code is inconsistent with an applicable requirement of the state mechanical code, the intermediate care facility shall be deemed to be in compliance with the state mechanical code requirement if the Life Safety Code requirement is met.

61.3(4) An ambulatory health care facility that is required to meet the provisions of the state mechanical code shall be deemed to be in compliance with the fire safety requirements of the state mechanical code if the ambulatory health care

facility is in compliance with the provisions of rule 661—205.20(100). In any other case in which an applicable requirement of the Life Safety Code is inconsistent with an applicable requirement of the state mechanical code, the ambulatory health care facility shall be deemed to be in compliance with the state mechanical code requirement if the Life Safety Code requirement is met.

61.3(5) A religious nonmedical health care institution that is required to meet the provisions of the state mechanical code shall be deemed to be in compliance with the provisions of the state mechanical code if the institution is in compliance with the provisions of rule 661—205.25(100). In any other case in which an applicable requirement of the Life Safety Code is inconsistent with an applicable requirement of the state mechanical code, the religious nonmedical health care institution shall be deemed to be in compliance with the state mechanical code requirement if the Life Safety Code requirement is met.

641—61.4(105) Enforcement. Any state or local jurisdiction retaining authority to perform inspections of mechanical installations in the state of Iowa shall retain initial interpretive authority over the state mechanical code and may implement an appeals process with respect to such interpretation. Ultimate appeal of any initial interpretation may be made to the plumbing and mechanical systems board by the filing of a petition for declaratory order pursuant to rule 641—57.1(17A) or the filing of a petition for waiver pursuant to 641—Chapter 31.

These rules are intended to implement Iowa Code section 105.4.

[Filed ARC 1494C (Notice ARC 1364C, IAB 3/5/14), IAB 6/11/14, effective 7/16/14]

[Filed ARC 2473C (Notice ARC 2274C, IAB 12/9/15), IAB 3/30/16, effective 6/1/16]

[Filed ARC 4613C (Notice ARC 4448C, IAB 5/22/19), IAB 8/14/19, effective 9/18/19]

EXERPT OF ADDITIONAL IOWA STATUTES GOVERNING PLUMBING 2019 Iowa Code

105.4 Plumbing installation code — rules.

1. a. The board shall establish by rule a plumbing installation code governing the installation of plumbing in this state. Consistent with fire safety rules and standards promulgated by the state fire marshal, the board shall adopt the most current version of the uniform plumbing code and the international mechanical code, as the state plumbing code and the state mechanical code, to govern the installation of plumbing and mechanical systems in this state. The board shall adopt the current version of each code within six months of its being released. The board may adopt amendments to each code by rule. The board shall work in consultation with the state fire marshal to ensure that proposed amendments do not conflict with the fire safety rules and standards promulgated by the state fire marshal. The state plumbing code and the state mechanical code shall be applicable to all buildings and structures owned by the state or an agency of the state and in each local jurisdiction.

b. Except as provided in paragraph “c”, a local jurisdiction is not required to adopt by ordinance the state plumbing code or the state mechanical code. However, a local jurisdiction that adopts by ordinance the state plumbing code or the state mechanical code may adopt standards that are more restrictive. A local jurisdiction that adopts standards that are more restrictive than the state plumbing code or the state mechanical code shall promptly provide copies of those standards to the board. The board shall maintain on its internet site the text of all local jurisdiction standards that differ from the applicable statewide code. Local jurisdictions shall not be required to conduct inspections or take any other enforcement action under the state plumbing code and state mechanical code regardless of whether the local jurisdiction has adopted by ordinance the state plumbing code or the state mechanical code.

c. A local jurisdiction with a population of more than fifteen thousand that has not adopted by ordinance the state plumbing code and state mechanical code shall have until December 31, 2016, to do so. Cities that have adopted a plumbing code or mechanical code as of April 26, 2013, shall have until December 31, 2016, to adopt the state plumbing code or the state mechanical code in lieu thereof.

2. The board shall adopt all rules necessary to carry out the licensing and other provisions of this chapter.

364.3 Limitations of powers. The following are limitations upon the powers of a city:

3. a. A city may not set standards and requirements which are lower or less stringent than those imposed by state law, but may set standards and requirements which are higher or more stringent than those imposed by state law, unless a state law provides otherwise.

b. A city shall not impose any fee or charge on any individual or business licensed by the board for the right to perform plumbing, HVAC, refrigeration, or hydronic systems work within the scope of the license. This paragraph does not prohibit a city from charging fees for the issuance of permits for, and inspections of, work performed in its jurisdiction.