

FOREWORD

Effective June 23, 2021, the International Mechanical Code (IMC), 2021 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 2021 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 – June 2021) 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

E-mail: PMSB@idph.iowa.gov

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 2012 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. Sections 101 and 102 and Chapters 2 to 15 of the International Mechanical Code, 2021 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 and premises in Iowa.

641—61.3(105) Amendments to International Mechanical Code. The International Mechanical Code (IMC), as adopted by reference in rule 641—61.2(105), shall be amended as follows:

61.3(1) Amend Section 101.2 by deleting the following:

“Exception: Detached one- and two-family dwellings and townhomes not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height shall comply with this code or the International Residential Code.”

61.3(2) Amend Section 102 by adopting new Section 102.12 as follows:

102.12 Local authority

(a) Local jurisdictions may administer the permit, inspection, testing, and enforcement provisions contained in the state mechanical code adopted and amended by this chapter. Permit, inspection, testing, and enforcement provisions contained in this code shall not be administered by the Plumbing and Mechanical Systems Board or the state unless otherwise provided by law.

(b) Local jurisdictions may not adopt mechanical codes other than the state mechanical code adopted and amended by this chapter. Local jurisdictions may adopt additional amendments to the state mechanical code if the additional amendments are stricter than the state mechanical code as set forth in this chapter. Local jurisdictions that adopt additional amendments must provide copies of any local amendments to the board.

61.3(3) 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.

61.3(4) Amend Section 306.1 by deleting the last sentence and inserting in lieu thereof: “An unobstructed level working space

at least 30 inches deep and 30 inches wide shall be provided on any side of equipment where service access is required. The authority having jurisdiction may approve service reductions prior to equipment installation, provided that the manufacturer's instructions are met.”

61.3(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.

61.3(6) Amend Section 306.5 by:

- a. Adding the following to the end of the section: “If the tenants of a multiple tenant building have, or are allowed to have, mechanical facilities on the roof or which penetrate the roof, then roof access ladders must be provided for use by all such tenants and their agents and contractors in a manner that does not require accessing space under the control of another tenant.”
- b. Deleting the following: “Exception: This section shall not apply to Group R-3 occupancies.”
- c. Adopting new Section 306.5.3 as follows:

306.5.3 Visual screening of rooftop equipment. Equipment screening shall not be installed to the rooftop unit or

the curb of the rooftop unit unless specified in the mechanical equipment manufacturer's installation instructions.

61.3(7) 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," 2019 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.

61.3(8) 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.

61.3(9) 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.

61.3(10) 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.

61.3(11) 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.

61.3(12) The first sentence of Section 507.3 shall be amended to read: “Type II hoods shall be installed above dishwashers capable of heating water beyond 140 degrees Fahrenheit and appliances that produce heat or moisture and do not produce grease or smoke as a result of the cooking process, except

where the heat and moisture loads from such appliances are incorporated into the HVAC system design or into the design of a separate removal system.”

61.3(13) 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.

61.3(14) 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.

61.3(15) Amend Section 601.5 by adopting new paragraph “10” as follows:

10. One return air opening per floor is required on a central duct return system per ACCA Manual D, Appendix 8. Return air transfer openings are required on all bedrooms when dedicated return air openings are not used.

61.3(16) Amend Section 603 by adopting new Section 603.1.1 as follows:

603.1.1 Duct location. Air plenums and ducts located in floor and wall cavities shall be separated from unconditioned space by construction with insulation to meet energy code requirements. These areas include but are not limited to exterior walls, cantilevered floors, and floors above garages.

61.3(17) Delete Section 604.3 and insert in lieu thereof the following new section:

604.3 Coverings and linings. Duct 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.

61.3(18) Amend Subsection 607.6.2.1 by adopting new Subsections 607.6.2.1.3 and 607.6.2.1.4 as follows:

607.6.2.1.3 Access ceiling radiation dampers shall be provided with an approved means of access that is large enough to permit inspection and maintenance of the damper and its operating parts.

Dampers equipped with fusible links, internal operators for both shall be provided with either an access door that is not less than 12 inches (305mm) square, or a removable duct section.

607.6.2.1.4 Identification ceiling radiation damper locations and access points shall be permanently identified on the exterior by a label or marking acceptable to the authority having jurisdiction.

61.3(19) Delete all references to the “International Plumbing Code” and insert in lieu thereof “state plumbing code.”

641—61.4(105) Hospitals and health care facilities.

61.4(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.

61.4(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.

61.4(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.

61.4(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.

61.4(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—61.5(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 5627C (Notice ARC 5476C, IAB 2/24/21), IAB 5/19/21, effective 6/23/21]

**EXCERPT OF ADDITIONAL IOWA STATUTES
GOVERNING PLUMBING & MECHANICAL SYSTEMS IN IOWA
2021 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.