Regulatory Analysis

Notice of Intended Action to be published: 641—Chapter 61
"State Mechanical Code"

Iowa Code section(s) or chapter(s) authorizing rulemaking: 105.4

State or federal law(s) implemented by the rulemaking: Iowa Code chapter 105 and Executive Order 10 (January 10, 2023)

Public Hearing

A public hearing at which persons may present their views orally or in writing will be held as follows:

November 19, 2024 9 a.m.	Ledges Conference Room 6200 Park Avenue Des Moines, Iowa

Virtual participation information will be available on the Department of Inspections, Appeals, and Licensing's website prior to the hearing.

Public Comment

Any interested person may submit written or oral comments concerning this Regulatory Analysis, which must be received by the Department no later than 4:30 p.m. on the date of the public hearing. Comments should be directed to:

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Purpose and Summary

This proposed rulemaking repromulgates Chapter 61, "State Mechanical Code" and implements Iowa Code section 105.4(1), in accordance with the goals and directives of Executive Order 10. Iowa Code section 105.4(1) provides that the Plumbing and Mechanical Board will establish by rule a mechanical installation code governing the installation of mechanical systems in the state. The Board is to adopt the most current version of the International Mechanical Code (IMC) and may adopt amendments to the IMC so long as those amendments do not conflict with the fire safety rules and standards promulgated by the Department.

This rulemaking implements the aforementioned Iowa Code section by adopting the most current version of the IMC as the state mechanical code, with amendments. The Board took into consideration informal public comment provided during Board meetings in proposing these rules.

Analysis of Impact

1. **Persons affected by the proposed rulemaking:**

- **Classes of persons that will bear the costs of the proposed rulemaking:**

Costs associated with this proposed rulemaking are borne by members of the industry by operating in compliance with Chapter 61 and by the Department in administering the chapter.

- **Classes of persons that will benefit from the proposed rulemaking:**

Chapter 61 benefits the welfare and safety of the public by ensuring that mechanical systems are installed using the most current practices resulting in consistency and safety in installations.

2. **Impact of the proposed rulemaking, economic or otherwise, including the nature and amount of all the different kinds of costs that would be incurred:**

- **Quantitative description of impact:**

As many of the rules require that members of the industry adopt and implement appropriate operational policies, the costs are not directly incurred due to these rules but are necessary when engaging in installing safe mechanical systems in buildings in the state. These costs are difficult to quantify. Furthermore, these costs are statutorily required by Iowa Code section 105.4.

- **Qualitative description of impact:**

The proposed rules were drafted to promote safety standards in the installation of mechanical systems by adopting the IMC. The IMC has been adopted by a majority of states, including Nebraska, South Dakota, Minnesota, Wisconsin, and Illinois. Each of those states has tailored the IMC to address the unique circumstances of the individual state. Chapter 61 includes amendments that tailor the IMC to the needs of the industry in Iowa, while establishing consistency through the use of the IMC.

3. **Costs to the State:**

- **Implementation and enforcement costs borne by the agency or any other agency:**

Costs to the Department include the costs to administer this chapter. There are no specific financial costs other than those associated with the Department's general functions.

- **Anticipated effect on state revenues:**

Costs of implementing these rules are largely paid by members of the industry. There is no anticipated impact on state revenues from these rules.

4. **Comparison of the costs and benefits of the proposed rulemaking to the costs and benefits of inaction:**

There are no specific financial costs to implement or enforce this rulemaking outside of any costs associated with the Department's statutory duties. The costs of this rulemaking are directly associated with the Department's general functions. This rulemaking does not add to the costs of the Department or public in excess of general functions. The costs borne by the industry are necessary to ensure safety and consistency in the installation of mechanical systems in the state. The benefits include clear and consistent implementation of applicable Iowa Code provisions.

5. **Determination whether less costly methods or less intrusive methods exist for achieving the purpose of the proposed rulemaking:**

There are no less costly or intrusive methods for achieving the purpose of the proposed rulemaking. Iowa Code section 105.4 requires the Board to adopt the IMC as the state mechanical code governing mechanical installations in Iowa.

6. **Alternative methods considered by the agency:**

- **Description of any alternative methods that were seriously considered by the agency:**

Response in Section "5," above.

- **Reasons why alternative methods were rejected in favor of the proposed rulemaking:**

Response in Section "5," above.

Small Business Impact

If the rulemaking will have a substantial impact on small business, include a discussion of whether it would be feasible and practicable to do any of the following to reduce the impact of the rulemaking on small business:

- Establish less stringent compliance or reporting requirements in the rulemaking for small business.

- Establish less stringent schedules or deadlines in the rulemaking for compliance or reporting requirements for small business.
- Consolidate or simplify the rulemaking's compliance or reporting requirements for small business.
- Establish performance standards to replace design or operational standards in the rulemaking for small business.
- Exempt small business from any or all requirements of the rulemaking.

If legal and feasible, how does the rulemaking use a method discussed above to reduce the substantial impact on small business?

Many persons engaged in installing mechanical systems are small business owners. Iowa Code section 105.4(1) requires the Board to adopt the most recent version of the IMC and does not provide for exemptions or different standards for small business owners. The necessity for consistency and safety in the installation of mechanical systems applies whether the business is a small business or a large corporation. If a small business identified a rule that is overly burdensome and the goals of which could be achieved in a manner that would reduce the impact on the small business, the small business could utilize the Board's established waiver process.

Text of Proposed Rulemaking

ITEM 1. Rescind 641—Chapter 61 and adopt the following **new** chapter in lieu thereof:

CHAPTER 61
STATE MECHANICAL CODE

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

"Ambulatory surgical center" means a facility or portion thereof defined in Iowa Code section 135R.1.

"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" means a facility licensed or seeking licensure pursuant to Iowa Code section 135C.6.

"Life Safety Code" means the 2012 edition of the Life Safety Code of the National Fire Protection Association, available at www.nfpa.org.

"Nursing facility" means the same as defined in Iowa Code section 135C.1.

641—61.2(105) Adoption by reference. Sections 101 and 102 and Chapters 2 through 15 of the International Mechanical Code, 2024 edition, published by the International Code Council, www.iccsafe.org, 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), is amended as follows:

61.3(1) In Section 101.2, delete the phrase "International Fuel Gas Code" and insert in lieu thereof "NFPA 54, National Fuel Gas Code, current edition; NFPA 58, Liquefied Petroleum Gas Code, current edition; the provisions of 661—Chapter 226; and the state plumbing 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 are not 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 will 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 and 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 and a level service space not less than 30 inches deep and 30 inches wide 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, and the buildings 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 504.9.2 and insert in lieu thereof the following new section:

504.9.2 Duct installation. Exhaust ducts shall:

a. Be supported at 4-foot (1219 mm) intervals and secured in place;

b. The insert end of the duct will extend into the adjoining duct or fitting in the direction of airflow;

c. 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; not less than 10 feet (3048 mm) above the adjoining grade level; and 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 is 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 and the TAB contractor 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 and air throw 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, and 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 and 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 250ºF (121ºC) and coverings and linings be listed and labeled. The use of an air gap to meet R-value requirements for duct insulation is 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 and dampers equipped with fusible links and internal operators be provided for both with either an access door that is not less than 12 inches (305 mm) 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—201.14(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—201.14(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 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—201.14(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 surgical center 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 surgical center is in compliance with the provisions of rule 661—201.14(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 surgical center 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—201.14(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 will 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 Iowa Code chapter 17A and 481—Chapter 3 or the filing of a petition for waiver pursuant to Iowa Code chapter 17A and 481—Chapter 6.

These rules are intended to implement Iowa Code section 105.4.