Office of the Revisor of Statutes

Administrative Rules

TITLE: Adopted Permanent Rules Adopting Changes to the Commercial Energy Code

AGENCY: Department of Labor and Industry

REVISOR ID: R-4513

MINNESOTA RULES: Chapter 1323

INCORPORATION BY REFERENCE: Part 1323.0010: The 2018 edition of the International Energy Conservation Code (IECC) as promulgated by the International Code Council, Inc. (ICC), Washington, D.C., is available in the office of the commissioner of labor and industry.

The attached rules are approved for
filing with the Secretary of State

Sheree Speer
Assistant Deputy Revisor

...3172

Department of Labor and Industry

Adopted Permanent Rules Adopting Changes to the Commercial Energy Code

1323.0010 INCORPORATION BY REFERENCE OF THE INTERNATIONAL ENERGY CONSERVATION CODE - COMMERCIAL ENERGY PROVISIONS.

Subpart 1. **General.** The commercial provisions of chapters 2 to 4 and 6 of the 2018 edition of the International Energy Conservation Code (IECC) as promulgated by the International Code Council, Inc. (ICC), Washington, D.C., are incorporated by reference and made part of the Minnesota State Building Code except as qualified by the applicable provisions in Minnesota Rules, chapter 1300, and as amended in this rule chapter. Portions of this publication reproduce excerpts from the 2018 IECC, International Code Council, Inc., Washington, D.C., copyright 2017, reproduced with permission, all rights reserved. The IECC is not subject to frequent change, and a copy of the IECC, with amendments for use in Minnesota, is available in the office of the commissioner of labor and industry.

Subp. 2. **Mandatory chapters.** The commercial provisions of the 2018 IECC-CE chapters 2 (CE) to 4 (CE) and 6 (CE), shall be administered by any municipality that has adopted the code, except as qualified by the applicable provisions in Minnesota Rules, chapter 1300, and as amended by this rule chapter.

Subp. 3. **References to administration.** References to Chapter 1 (CE) of the 2018 IECC and any references to code administration in this code are deleted and replaced with Minnesota Rules, chapter 1300, Administration of the State Building Code.

1323.0020 REFERENCES TO OTHER INTERNATIONAL CODE COUNCIL (ICC) CODES.

[For text of subpart 1, see Minnesota Rules]

Subp. 2. **Building code.** References to the International Building Code or IBC in this code mean the Minnesota Building Code, Minnesota Rules, chapter 1305, adopted pursuant to Minnesota Statutes, section 326B.106, subdivision 1.

Subp. 3. **Residential code.** References to the International Residential Code or IRC in this code mean the Minnesota Residential Code, Minnesota Rules, chapter 1309, adopted pursuant to Minnesota Statutes, section 326B.106, subdivision 1.

[For text of subparts 4 and 5, see Minnesota Rules]

Subp. 6. **Mechanical code.** References to the International Mechanical Code or IMC in this code mean the Minnesota Mechanical Code, Minnesota Rules, chapter 1346, adopted pursuant to Minnesota Statutes, section 326B.106, subdivision 1.

[For text of subparts 7 to 11, see Minnesota Rules]

1323.0100 ADMINISTRATION FOR COMMERCIAL ENERGY CODE.

Subpart 1. **Application.** In addition to the requirements in Minnesota Rules, part 1323.0030, the administrative provisions in this part apply.

[For text of subparts 2 and 3, see Minnesota Rules]

Subp. 4. **Change of occupancy or use.** Spaces undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with this code. Where the use in a space changes from one use in Table C405.3.2(1) or (2) to another use in Table C405.3.2(1) or (2), the installed lighting wattage shall comply with Section C405.3.2.

[For text of subpart 5, see Minnesota Rules]

Subp. 6. **Compliance.** Residential buildings shall meet the provisions of IECC - Residential Provisions (RE), as amended by Minnesota Rules, chapter 1322. Commercial buildings shall meet the provisions of IECC - Commercial Provisions (CE), as amended by this chapter.

[For text of subparts 7 and 8, see Minnesota Rules]

Subp. 9. [See repealer.]

Subp. 10. **Information on construction documents.** Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall indicate the location, nature, and extent of the work proposed, and show in detail pertinent data and features of the building, systems, and equipment as governed in this code. The details shall include the following as applicable:

A. insulation materials and their *R*-values;

B. fenestration *U*-factors and SHGCs;

C. area-weighted *U*-factor and SHGC calculations;

D. mechanical system design criteria;

E. mechanical and service water heating system and equipment types, sizes, and efficiencies;

F. economizer description; equipment and systems controls;

G. fan motor brake horsepower for fan motors 1 horsepower (hp) or larger;

H. fan motor horsepower and controls;

I. duct sealing, duct sizing, duct and pipe insulation and location, terminal air or water design flow rates;

J. electrical distribution diagram(s);

K. lighting fixture schedule with wattage and control narrative;

L. locations of daylight zones on plans and provisions for functional testing of lighting controls;

M. air sealing details clearly delineating the air barrier location and showing continuity between roof, wall, foundation, around frames and sleeves, and at other similar openings; and

N. additional details as required by the building official to determine whether the work proposed will conform to this code.

1323.0202 SECTION C202, GENERAL DEFINITIONS.

A. IECC section C202 is amended by modifying the following definitions to read as follows:

APPROVED. "Approved" means approval by the building official, pursuant to the Minnesota State Building Code, by reason of:

1. inspection, investigation, or testing;

2. accepted principles;

3. computer simulations;

4. research reports; or

5. testing performed by either a licensed engineer or by a locally or nationally recognized testing laboratory.

COMPUTER ROOM. "Computer room" means a room whose primary function is to house equipment for the processing and storage of electronic data and that has a design electronic data equipment power density of greater than 20 watts per square foot (20 watts per 0.092 m^2) of conditioned floor area or a connected design electronic data equipment load of greater than 10 kW.

INFILTRATION. "Infiltration" means the uncontrolled inward air leakage into a building caused by the pressure effects of wind, the effect of differences in the indoor and outdoor air density, or the imbalance between supply and exhaust air systems.

U-FACTOR (THERMAL TRANSMITTANCE). "U-factor" means the coefficient of heat transmission (air to air) through a building component or assembly, inclusive of the inside and outside air films, equal to the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side of the building component or assembly (Btu/h•ft^2•°F)[W/(m^2•K)].

B. Section C202 is amended by adding the following definition:

CODE. "This code" or "the code" means the Minnesota Commercial Energy Code, Minnesota Rules, chapter 1323.

1323.0303 SECTION C303, MATERIALS, SYSTEMS, AND EQUIPMENT.

IECC section C303.1 is amended to read as follows:

C303.1 Identification. Materials, systems, and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code. Materials shall be designed for the intended use, and installed in accordance with the manufacturer's installation instructions, any listing, or certifications required. (Subsections C303.1.1 through C303.1.4, and Tables C303.1.3(1), C303.1.3(2), and C303.1.3(3) remain unchanged.)

1323.0402 SECTION C402, BUILDING ENVELOPE REQUIREMENTS.

Subpart 1. **IECC section C402.2.1.2 Insulation requirements for roof replacement.** IECC section C402.2.1 is amended by adding a new subsection C402.2.1.2 to read as follows:

C402.2.1.2 Insulation requirements for roof replacement. For roof replacement on an existing building where the insulation is entirely above the deck and where the roof slope is less than two units vertical in 12 units horizontal, the insulation shall conform to the energy conservation

requirements specified in ~~Table C402.2, Opaque Thermal Envelope Requirements~~ Tables C402.1.3 and C402.1.4.

Exception: Where the required R-value cannot be provided because of the thickness limitations that occur with the existing rooftop conditions, including heating, ventilation and air-conditioning equipment, low door or glazing heights, parapet heights, or proper roof flashing heights, the maximum thickness of insulation compatible with the available space and existing rooftop conditions shall be installed~~.~~, as approved by the building official. In no case shall the R-value of the roof insulation be reduced or the U-factor of the roof assembly be increased as part of the roof replacement.

Subp. 2. [See repealer.]

Subp. 3. [See repealer.]

Subp. 4. [See repealer.]

1323.0403 SECTION C403, BUILDING MECHANICAL SYSTEMS.

Subpart 1. **IECC section C403.1.1 Calculation of heating and cooling loads.** IECC section C403.1.1 is amended to read as follows and by adding Table C403.1.1:

C403.1.1 Calculation of heating and cooling loads. Design loads associated with heating, ventilating, and air conditioning of the building shall be determined in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure using the design parameters specified in Table C403.1.1. Heating and cooling loads shall be adjusted to account for load reductions that are achieved where energy recovery systems are utilized in the HVAC system in accordance with the ASHRAE HVAC Systems and Equipment Handbook by an approved equivalent computational procedure.

TABLE C403.1.1

CLIMATIC DATA DESIGN CONDITIONS

City	Summer Db/Wb °F	Winter Db °F
Aitkin	82/72	-24
Albert Lea	85/72	-15
Alexandria	86/70	-21
Bemidji	84/68	-24
Cloquet	82/68	-20
Crookston	84/70	-27
Duluth	81/67	-20
Ely	82/68	-29
Eveleth	82/68	-26
Faribault	86/73	-16
Fergus Falls	86/71	-21
Grand Rapids	81/67	-23
Hibbing	82/68	-19
International Falls	83/67	-28
Litchfield	85/71	-18
Little Falls	86/71	-20
Mankato	86/72	-15
Minneapolis/St. Paul	88/72	-15
Montevideo	86/72	-17
Mora	84/70	-21
Morris	84/72	-21
New Ulm	87/73	-15
Owatonna	86/73	-16
Pequot Lakes	84/68	-23
Pipestone	85/73	-15
Redwood Falls	89/73	-17

Rochester	85/72	-17
Roseau	82/70	-29
St. Cloud	86/71	-20
Thief River Falls	82/68	-25
Tofte	75/61	-14
Warroad	83/67	-29
Wheaton	84/71	-20
Willmar	85/71	-20
Winona	88/74	-13
Worthington	84/71	-14

Db = dry bulb temperature, degrees Fahrenheit

Wb = wet bulb temperature, degrees Fahrenheit

Subp. 2. **IECC section C403.4.1.4 Heated or cooled vestibules (mandatory).** IECC section C403.4.1.4 is amended to read as follows:

C403.4.1.4 Heated or cooled vestibules (mandatory). The heating system for heated vestibules and air curtains with integral heating shall be provided with controls configured to shut off the source of heating when the outdoor air temperature is greater than 60°F (16°C). Vestibule heating and cooling systems shall be controlled by a thermostat located in the vestibule configured to limit heating to a temperature not greater than 68°F (20°C) and cooling to a temperature of not less than 85°F (29°C).

Exception: Control of heating or cooling provided by site-recovered energy or transfer air that would otherwise be exhausted.

Subp. 2a. **IECC section C403.4.1.5 Hot water boiler outdoor temperature setback control (mandatory).** IECC section C403.4.1.5 is amended by adding an exception to read as follows:

Exception: Boiler systems used for service water heating.

Subp. 3. **IECC section C403.4.2.1 Thermostatic setback.** IECC section C403.4.2.1 is amended to read as follows:

C403.4.2.1 Thermostatic setback. Heating systems shall be equipped with controls that have the capacity to automatically restart and temporarily operate the systems to maintain zone temperatures above a heating setpoint adjustable down to 55°F (13°C) or lower. Cooling systems shall be equipped with controls that have the capacity to automatically restart and temporarily operate the system to maintain zone temperatures below a cooling setpoint adjustable up to 85°F (29°C) or higher or to prevent high space humidity levels.

Exceptions:

1. Radiant floor and radiant ceiling heating systems.

2. Spaces where constant temperature conditions must be maintained.

Subp. 4. **IECC section C403.4.3.3.2 Heat rejection.** IECC section C403.4.3.3.2, item 3, is amended to read as follows:

3. Where an open-circuit or closed-circuit cooling tower is used in conjunction with a separate heat exchanger to isolate the open-circuit or closed-circuit cooling tower from the heat pump loop, heat loss shall be controlled by shutting down the circulation pump on the cooling tower loop.

(The exception remains unchanged.)

Subp. 5. [Renumbered subp 7]

Subp. 5. **IECC section C403.4.3.3.3 Two-position valve.** IECC section C403.4.3.3.3 is amended to read as follows:

C403.4.3.3.3 Two-position valve. Each hydronic heat pump shall have a two-position automatic valve interlocked to shut off the water flow when the compressor is off.

Subp. 6. [Renumbered subp 8]

Subp. 6. **IECC section C403.6.5 Supply-air temperature reset controls.** IECC section C403.6.5 is amended to read as follows:

C403.6.5 Supply-air temperature reset controls. Multiple zone HVAC systems shall include controls that automatically reset the supply-air temperature in response to representative building loads, or to outdoor air temperature. The controls shall be capable of resetting the supply-air temperature at least 25 percent of the difference between the design supply-air temperature and the design room air temperature. Zones with constant loads shall be designed for the fully reset supply temperature.

Exceptions:

1. Systems that prevent reheating, recooling, or mixing of heated and cooled supply air.

2. 75 percent of the energy for reheating is from site-recovered or site solar energy sources.

3. Zones with peak supply air quantities of 300 cfm (142 L/s) or less.

Subp. 7. [Renumbered subp 11a]

Subp. 7. **IECC section C403.7.4 Energy recovery ventilation systems (mandatory).** IECC section C403.7.4 is amended to read as follows:

C403.7.4 Energy recovery ventilation systems. Where the supply airflow rate of a fan system exceeds the values specified in Table C403.7.4, the system shall

include an energy recovery system. The energy recovery system shall be configured to provide a change in the enthalpy of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and return air enthalpies, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass or controls that permit operation of the economizer as required by section C403.5.

Exception: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are prohibited by the International Mechanical Code, as amended in Minnesota Rules, chapter 1346.

2. Laboratory fume hood systems that include at least one of the following features:

2.1 Variable-air-volume hood exhaust and room supply systems capable of reducing exhaust and makeup air volumes to 50 percent or less of design values except when higher volumes are required to maintain safe operating conditions.

2.2 Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2°F (1.1°C) above room setpoint, cooled to no cooler than 3°F (1.7°C) below room setpoint, with no humidification added, and no simultaneous heating and cooling used for dehumidification control.

3. Systems serving spaces that are heated to less than 60°F (15.5°C) and are not cooled.

4. Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.

5. Heating energy recovery in Climate Zones 1 and 2.

6. Cooling energy recovery in Climate Zones 3C, 4C, 5B, 5C, 6B, 7, and 8.

7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil.

8. Where the largest source of air exhausted at a single location at the building exterior is less than 75 percent of the design outdoor air flow rate.

9. Systems expected to operate less than 20 hours per week at the outdoor air percentage covered by Table C403.7.4.

10. Systems exhausting paint fumes; toxic, flammable, or corrosive fumes; or dust.

11. Commercial kitchen hoods used for collecting and removing grease vapors and smoke.

Subp. 8. [Renumbered subp 12a]

Subp. 8. **Table C403.7.4 Exhaust Air Energy Recovery.** IECC Table C403.7.4(1) and Table C403.7.4(2) are deleted and replaced with the following:

TABLE C403.7.4

EXHAUST AIR ENERGY RECOVERY

Climate Zone	Percent (%) Outdoor Air At Full Design Airflow Rate							
	≥10 and <20%	≥20 and <30%	≥30% and <40%	≥40% and <50%	≥50% and <60%	≥60% and <70%	≥ 70% and <80%	≥80%
	Design Supply Fan Airflow Rate (cfm)							
6A	NR	NR	≥5,500	≥4,500	≥3,500	≥2,000	≥1,000	≥0
7	NR	NR	≥2,500	≥1,000	≥0	≥0	≥0	≥0

For SI: 1 cfm = 0.4719 L/s

NR = Not Required

Subp. 9. [Renumbered subp 15]

Subp. 9. **IECC section C403.7.7 Shutoff dampers (mandatory).** The exception to IECC section C403.7.7 is amended to read as follows:

Exception: Nonmotorized gravity dampers shall be an alternative to motorized dampers for exhaust and relief openings as follows:

1. In buildings less than three stories in height above grade plane.

2. Where the design exhaust capacity is not greater than 300 cfm (142 L/s).

Each nonmotorized gravity damper shall also meet one of the following requirements:

1. The damper shall have a maximum air leakage rate of 20 cfm/ft^2 (101.6 L/s • m^2) where not less than 24 inches in either dimension and 40 cfm/ft^2 (203.2 L/s • m^2) where less than 24 inches in either dimension. The rate of air leakage shall be determined at 1.0 inch water gauge (249 Pa) when tested in accordance with AMCA 500D for such purpose.

2. The damper shall be for an exhaust duct 8 inches (203 mm) in diameter or smaller and shall be equipped with a spring-loaded backdraft damper and a weather hood at the point of discharge.

Subp. 10. **IECC section C403.9.4 Tower flow turndown.** IECC section C403.9.4 is amended by adding an exception to read as follows:

Exception: An increase in the water flow rate is permitted during freezing conditions.

Subp. 11. [See repealer.]

Subp. 11a. **IECC section C403.11.1 Duct and plenum insulation and sealing.** IECC section C403.11.1 is amended to read as follows:

C403.11.1 Duct and plenum insulation and sealing. Insulation shall be protected from damage, including damage from sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be suitable for outdoor service and shall be protected by aluminum, sheet metal, painted canvas, plastic cover, or other similar materials approved by the building official. Cellular foam insulation shall be protected as required by this subpart or painted with a coating that is water-retardant and provides shielding from solar radiation that causes degradation of the material. All supply, return, exhaust, and relief air ducts and plenums shall be insulated according to Table C403.11.1, located in subpart 12a.

Exception: Where located within equipment.

All ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with the International Mechanical Code, as amended in Minnesota Rules, chapter 1346.

Subp. 12. [See repealer.]

Subp. 12a. **IECC Table C403.11.1 Minimum required duct and plenum insulation.** IECC section C403.11 is amended by adding Table C403.11.1 to read as follows:

TABLE C403.11.1

MINIMUM REQUIRED DUCT AND PLENUM INSULATION

Ducts for Other Than Dwelling Units[a,b]	**Supply Duct Requirements**[c,d]	**Return Duct Requirements**[c,d]	**Exhaust Duct and Relief Duct Requirements**[c,d,e]
Exterior of building	R-12, V and W	R-12, V and W	R-12, V and W
Attics, garages, and ventilated crawl spaces	R-12 and V	R-12 and V	R-6 and V

TD greater than 40°F	R-5 and V	None	R-5 and V
TD greater than 15°F and less than or equal to 40°F	R-3.3 and V	None	R-3.3 and V
Within concrete slab or within ground	R-3.5 and V	R-3.5 and V	None
Within conditioned spaces	None[f]	None	None
TD less than or equal to 15°F	None	None	None

Ducts for Dwelling Units[a]	**Requirements[c,d]**
Exterior of building	R-12, V and W
Attics, garages, and ventilated crawl spaces (except exhaust ducts)	R-12 and V
Exhaust ducts in attics, garages, and ventilated crawl spaces	R-3.3 and V
Outdoor air intakes within conditioned spaces	R-3.3 and V
Exhaust ducts within conditioned spaces[e]	R-3.3 and V
Within concrete slab or within ground	R-3.5 and V
Within conditioned spaces	None

a. Ducts located within the building thermal envelope shall be located completely on the conditioned side of the air barrier.

b. TD = Design temperature difference between the air in the duct and the ambient temperature outside of the duct, unless the duct type and location are specifically identified above.

c. V = Vapor retarder required in accordance with the IMC . When a vapor retarder is required, duct insulation required by this section shall be installed without respect to other building envelope insulation.

d. W = Approved weatherproof barrier.

e. Insulation is only required in the conditioned space for a distance of 3 feet (914 mm) from the exterior or unconditioned space.

f. If the temperature rise is greater than 3°F from the supply air connection of the air handling unit to the furthest outlet, duct insulation shall be required for the entire length or for sufficient length to limit the temperature rise to 3°F.

Subp. 13. [Renumbered subp 5]

Subp. 13. **IECC section C403.11.2 Duct construction (mandatory).** IECC section C403.11.2 is amended to read:

C403.11.2 Duct construction. Ductwork shall be constructed and erected in accordance with Minnesota Rules, chapter 1346.

C403.11.2.1 Low-pressure duct systems. All longitudinal and transverse joints, seams, and connections of supply and return ducts operating at a static pressure less than or equal to 2 inches water gauge (w.g.) (500 Pa) shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, or tapes installed in accordance with the manufacturer's installation instructions. Pressure classifications specific to the duct system shall be clearly indicated on the construction documents in accordance with Minnesota Rules, chapter 1346.

Exception: Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressure less than 2 inches water gauge (w.g.) (500 Pa) pressure classification.

C403.11.2.2 Medium-pressure duct systems. All ducts and plenums designed to operate at a static pressure greater than 2 inches water gauge (w.g.) (500 Pa) but less than or equal to 3 inches water gauge (w.g.) (750 Pa) shall be insulated and sealed in accordance with section C403.11.1. Pressure classifications specific to the duct system shall be clearly indicated on the construction documents in accordance with Minnesota Rules, chapter 1346.

C403.11.2.3 High-pressure duct systems. Ducts designed to operate at static pressures in excess of 3 inches water gauge (w.g.) (750 Pa) shall be insulated and sealed in accordance with section C403.11.1. In addition, ducts and plenums shall be leak-tested in accordance with the SMACNA HVAC Air Duct Leakage Test Manual with the rate of air leakage (CL) less than or equal to 4.0 as determined in accordance with Equation 4-8.

(Equation 4-8) $CL=F/P^{0.65}$

where:

F = The measured leakage rage in cfm per 100 square feet of duct surface area.

P = The static pressure of the test, which is equal to the design duct pressure class rating, inches w.g.

Documentation shall be furnished by the designer demonstrating that representative sections totaling at least 25 percent of the duct area have been tested and that all tested sections meet the requirements of this section. Positive pressure leakage testing is acceptable for negative pressure ductwork.

Subp. 14. **IECC Table C403.11.3 Minimum pipe insulation thickness.** IECC Table C403.11.3 is amended to add a footnote "d" to read as follows:

d. Insulation requirements do not apply to those sections of piping used as the radiant heat source for radiant heating systems.

Subp. 15. **IECC section C403.11.3.1 Protection of piping insulation.** IECC section C403.11.3.1 is amended to read as follows:

C403.11.3.1 Protection of piping insulation. Piping insulation shall be protected from damage, including damage from sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation to deter degradation of the material. Adhesive tape shall not be permitted. Piping insulation shall comply with both of the following requirements:

1. Insulation exposed to weather shall be suitable for outdoor service and shall be protected by aluminum, sheet metal, painted canvas, plastic cover, or other similar materials approved by the building official. Cellular foam insulation shall be protected as above or painted with a coating that is water-retardant and provides shielding from solar radiation; and

2. Unless the insulation is vapor-retardant, insulation covering chilled-water piping or refrigerant suction piping located outside the conditioned space shall include a vapor retardant located outside the insulation. All penetrations and joints shall be sealed.

1323.0404 SECTION C404, SERVICE WATER HEATING (MANDATORY).

IECC section C404.9.3 is amended to read as follows:

C404.9.3 Covers. Heated pools and inground, permanently installed spas shall be provided with a vapor-retardant cover. Covers for heated swimming pools shall comply with Minnesota Rules, part 4717.1575, the Minnesota Department of Health pool cover safety standard. Pools heated to more than 90°F shall have a pool cover with a minimum insulation value of R-12.

Exception: A vapor-retardant cover is not required for pools deriving over 75 percent of the energy for heating from site-recovered energy, such as a heat pump or solar energy source computed over an operating season.

1323.0408 SYSTEM COMMISSIONING.

Subpart 1. **IECC section C408.2.** IECC section C408.2 is amended to read as follows:

C408.2 Mechanical systems and service water heating systems commissioning and completion requirements. Prior to the final mechanical and plumbing inspections, the registered design professional, the permit applicant, or an approved agency shall provide evidence of mechanical systems commissioning and completion in accordance with the provisions of this Section.

Construction document notes or specifications shall clearly indicate provisions for commissioning and completion requirements in accordance with this Section and are permitted to refer to specifications for further requirements. Copies of all documentation shall be given to the owner or the owner's authorized agent and made available to the code official upon request in accordance with Sections C408.2.4 and C408.2.5.

Exception: The following systems are exempt from the commissioning requirements:

1. Mechanical systems in buildings where the total mechanical equipment capacity is less than 480,000 Btu/h (140 690 W) cooling capacity and 600,000 Btu/h (175 860 W) heating capacity.

2. Systems included in Section C403.5 that serve dwelling units and sleeping units in hotels, motels, boarding houses, or similar units.

(Subsections C408.2.1 through C408.2.5.2 remain unchanged.)

Subp. 2. [See repealer.]

REPEALER. Minnesota Rules, parts 1323.0100, subpart 9; 1323.0402, subparts 2, 3, and 4; 1323.0403, subparts 11 and 12; 1323.0405; and 1323.0408, subpart 2, are repealed.

EFFECTIVE DATE. The amendments to this chapter are effective March 31, 2020, or five business days after publication of the notice of adoption in the State Register, whichever is later.

MINNESOTA
OFFICE OF
ADMINISTRATIVE
HEARINGS

PO Box 64620
Saint Paul, MN 55164-0620
mn.gov/oah

PH (651) 361-7900
TTY (651) 361-7878
FAX (651) 539-0310

December 4, 2019

VIA EMAIL ONLY
Nancy Breems
Secretary of State, Elections Division
180 State Office Building
100 Rev Dr Martin Luther King Jr Blvd
St. Paul, Minnesota 55155-1299
official.documents@state.mn.us

Re: ***In the Matter of the Proposed Rules Relating to Chapter 1323 - Commercial Energy Code***
OAH 71-9001-35634; Revisor R-4513

Dear Ms. Breems:

Enclosed for filing is an electronic copy of the above-entitled adopted rules.

Please send the agency copy of the rules to:

Wendy Wilson Legge
General Counsel
443 Lafayette Ave N
Saint Paul, MN 55155
wendy.legge@state.mn.us

If you have any questions regarding this matter, please contact Denise Collins at (651) 361-7875, denise.collins@state.mn.us or via facsimile at (651) 539-0310.

Sincerely,

Sheena Denny
Legal Assistant

Enclosures
cc: Wendy Wilson Legge (via email)