

MINNESOTA RULES, CHAPTER 1323

ADOPTION OF THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) (COMMERCIAL PROVISIONS)

1323.0010 ADOPTION OF INTERNATIONAL ENERGY CONSERVATION CODE (IECC) BY REFERENCE.

~~For purposes of this chapter, "ASHRAE Standard 90.1" means ANSI/ASHRAE/IESNA Standard 90.1-2004, titled Energy Standard for Buildings Except Low-Rise Residential Buildings, promulgated by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., 1791 Tullie Circle, N.E., Atlanta, GA 30329. ASHRAE Standard 90.1-2004, is incorporated by reference and made part of the Minnesota Commercial Energy Code, as amended in this chapter. Portions of this chapter reproduce text and tables from ASHRAE Standard 90.1. ASHRAE Standard 90.1 is not subject to frequent change and a copy of ASHRAE Standard 90.1 is available in the office of the commissioner of labor and industry. ASHRAE Standard 90.1 is copyright 2004 by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. All rights reserved.~~

Subpart 1. **Generally.** The 2012 edition of the International Energy Conservation Code (IECC) as promulgated by the International Code Council (ICC), Falls Church, Virginia, is 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 chapter. 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. Portions of this chapter reproduce text and tables from the IECC. The IECC is copyright 2011 by the ICC. All rights reserved.

Subpart 2. **Mandatory chapters.** The 2012 IECC CE Chapters 2 through 5, must 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 chapter.

Subpart 3. **Replacement chapters.** The following 2012 IECC chapters are being deleted and replaced with the provisions listed below:

A. Chapter 1(CE) of the 2012 IECC and any references to code administration in this code are deleted and replaced with Minnesota Rules, chapter 1300, Minnesota Administration Code.

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

Subpart 1. **Generally.** References to other codes and standards promulgated by the International Code Council in the 2012 International Energy Conservation Code are modified in subparts 2 to 11.

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

Subpart 3. **Residential code.** References to the International Residential Code in this code mean the Minnesota Residential Code, adopted under Minnesota Rules, chapter 1309, and Minnesota Statutes, section 326B.106, subdivision 1.

Subpart 4. **Electrical code.** References to the International Code Council, Electrical Code in this code mean the Minnesota Electrical Code, Minnesota Rules, chapter 1315, adopted under Minnesota Statutes, section 326B.35.

Subpart 5. **Fuel gas code.** References to the International Fuel Gas Code in this code mean the Minnesota Mechanical Code, Minnesota Rules, chapter 1346, adopted under Minnesota Statutes, section 326B.106, subdivision 1.

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

Subpart 7. **Plumbing code.** References to the International Plumbing Code in this code mean the Minnesota Plumbing Code, Minnesota Rules, chapter 4715, adopted under Minnesota Statutes, section 326B.106, subdivisions 1 and 2.

Subpart 8. **Private sewage disposal code.** References to the International Private Sewage Disposal Code in this code mean the Minnesota Pollution Control Agency's minimum standards and criteria for individual sewage treatment systems in Minnesota Rules, chapter 7080, adopted under Minnesota Statutes, chapters 103F, 103G, 115, and 116.

Subpart 9. **Energy conservation code.** References to the International Energy Conservation Code in this code mean the Minnesota Energy Code, Minnesota Rules, chapter 1322 and chapter 1323 adopted under Minnesota Statutes, section 326B.106.

Subpart 10. **Property maintenance code.** References to the International Property Maintenance Code in this code do not apply.

Subpart 11. **Accessibility code.** References to accessibility in this code mean the Minnesota Accessibility Code, Minnesota Rules, chapter 1341.

1323.0030 ADMINISTRATIVE PROCEDURE CRITERIA.

Procedures relating to the administration and enforcement of this code under Minnesota Statutes, section 326B.101, are contained in Minnesota Rules, chapter 1300, Minnesota Administration Code. Minnesota Rules, chapter 1300, governs the application of this code.

1323.0040 VIOLATION.

A violation of this code is a misdemeanor under Minnesota Statutes, section 326B.082.

1323.0100, ADMINISTRATION FOR COMMERCIAL ENERGY CODE

Subpart 1. Notwithstanding 1323.0030, the following administrative provisions apply.

A. **Scope.** This Code applies to Commercial Buildings and the building sites and associated systems and equipment.

B. **Additions, alterations, renovations or repairs.** Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building.

Exception: The following need not comply provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass only replacements in an existing sash and frame.
3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
4. Construction where the existing roof, wall or floor cavity is not exposed.
5. Reroofing for roofs where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Replacement of existing doors that separate *conditioned space* from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a *conditioned space* from the exterior shall not be removed.
7. Alterations that replace less than 50 percent of the luminaires in a space provided that such alterations do not increase the installed interior lighting power.
8. Alterations that replace only the bulb and ballast within the existing luminaires in a space provided that the *alteration* does not increase the installed interior lighting power.

Change in occupancy or use. Spaces under-going 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 C405.5.2(1) or (2) to another use in Table C405.5.2(1) or (2), the installed lighting wattage shall comply with Section C405.5.

Change in space conditioning. Any non-conditioned space that is altered to become *conditioned space* shall be required to be brought into full compliance with this code.

Mixed occupancy. Where a building includes both *residential* and *commercial* occupancies, each occupancy shall be separately considered and meet the applicable provisions of IECC-

Commercial Provisions of IECC- Residential Provisions.

Compliance. *Residential buildings shall meet the provisions of IECC-Residential Provisions. Commercial buildings shall meet the IECC-Commercial Provisions..*

Compliance materials. *The code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code.*

Low energy buildings. *The following buildings, or portions thereof, separated from the remainder of the building by building thermal envelope assemblies complying with this code shall be exempt from the building thermal envelope provisions of this code:*

- 1. Those with a peak design rate of energy usage less than 3.4 Btu/h·ft² (10.7 W/m²) or 1.0 watt/ft² (10.7 W/m²) of floor area for space conditioning purposes.*
- 2. Those that do not contain conditioned space.*

Information on construction documents. *Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted when approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems, and equipment as herein governed. Details shall include, but are not limited to, as applicable, insulation materials and their R-values; fenestration U-factors and SHGCs; area-weighted U-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment types, sizes and efficiencies; economizer description; equipment and systems controls; fan motor horsepower (hp) and controls; duct sealing, duct and pipe insulation and location; lighting fixture schedule with watt-age and control narrative; and air sealing details.*

D. Referenced codes and standards. *The codes and standards referenced in this code shall be those listed in Chapter 5, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference as regulated by this code.*

1323.0201 SECTION R201, GENERAL.

IECC Section C201.4 is amended to read as follows:

C201.4 Terms not defined. *Where terms are not defined through the methods authorized by this chapter, the Merriam-Webster Collegiate Dictionary, available at www.m-w.com, shall be considered as providing ordinarily accepted meanings. The dictionary is incorporated by reference, is subject to frequent change, and is available through the Minitex interlibrary loan system.*

1323.0303 SECTION R303, MATERIALS, SYSTEMS AND EQUIPMENT

IECC Section C303.1. 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 manufacturers installation instructions, any listing, or certifications required.

1323.0401 Section C401, GENERAL

- Discuss section C402.4.1 on this topic with the Committee regarding location of Air barriers (warm-in-winter side?)

C403.2.1 Calculation of heating and cooling loads. IECC Section C303.1 is amended to read as follows:

C403.2.1 Calculation of heating and cooling loads. Design loads shall be determined in accordance with the procedures described in ANSI/ASHRAE/ACCA Standard 183. The design loads shall account for the building envelope, lighting, ventilation and occupancy loads based on the project design. 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*. Alternatively, design loads shall be determined by an *approved* equivalent computation procedure, using the design parameters specified in Chapter 3 [and Table 403.2.1](#)

Table 403.2.1 Climatic Data Design Conditions

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

<u>New Ulm</u>	<u>87/73</u>	<u>-15</u>
<u>Owatonna</u>	<u>86/73</u>	<u>-16</u>
<u>Pequot Lake</u>	<u>84/68</u>	<u>-23</u>
<u>Pipestone</u>	<u>85/73</u>	<u>-15</u>
<u>Redwood Falls</u>	<u>89/73</u>	<u>-17</u>
<u>Rochester</u>	<u>85/72</u>	<u>-17</u>
<u>Roseau</u>	<u>82/70</u>	<u>-29</u>
<u>St. Cloud</u>	<u>86/NA</u>	<u>-20</u>
<u>Thief River</u>	<u>82/68</u>	<u>-25</u>
<u>Tofte</u>	<u>75/61</u>	<u>-14</u>
<u>Warroad</u>	<u>83/67</u>	<u>-29</u>
<u>Wheaton</u>	<u>84/71</u>	<u>-20</u>
<u>Willmar</u>	<u>85/71</u>	<u>-20</u>
<u>Winona</u>	<u>88/74</u>	<u>-13</u>
<u>Worthington</u>	<u>84/71</u>	<u>-14</u>
<u>DB = dry bulb temperature, degrees Fahrenheit</u>		
<u>WB = wet bulb temperature, degrees Fahrenheit</u>		