



**Report From Agency**

**State of Wisconsin \ Department of Commerce**

# **RULES IN FINAL DRAFT FORM**

**Rule No.:** Chapters Comm 21 and 28

**Relating to:** Carbon Monoxide Detectors in Dwellings

**Clearinghouse Rule No.:** 10-089

COM-10535 (N.03/97)

The Wisconsin Department of Commerce adopts an order to repeal Comm 20.24 Table 20.24-14 and Comm 21.097 (1) (b) and (4); to renumber Comm 21.097 (1) (a) and Comm 21.097 (2), (3), (5), (6) and (7); to renumber and amend Comm 28.01 and Comm 28.02; to amend Comm 20.02 (4), Comm 21.097 (4) (g) and (h) and Chapter Comm 28 (title); and to create Comm 21.097 (1), (2) and (3), Comm 21.097 (4) title, (d) and (f), Comm 28.01 (2), Comm 28.02 and Comm 28.04 relating to carbon monoxide detectors in dwellings and affecting small business.

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## **Analysis of Rule**

### **1. Statutes interpreted.**

Statutes Interpreted: ss. 101.615 (lm) and 101.647, Stats., as created by 2009 Wisconsin Act 158.

### **2. Statutory authority.**

Statutory Authority: ss. 101.02 (1) and 101.63 (1), Stats., and ss. 101.615 (lm) and 101.647, Stats., as created by 2009 Wisconsin Act 158.

### **3. Related statute or rule.**

Statutes: s. 101.149, Stats.  
Administrative rules: Chapters Comm 61-66, Commercial Building Code

### **4. Explanation of agency authority.**

Under the statutes cited, the Department of Commerce protects public health, safety, and welfare by adopting rules that establish uniform, statewide standards for the construction of one- and 2-family dwellings. In addition, 2009 Wisconsin Act 158 specifically directs the department to address carbon monoxide alarms involving these types of buildings.

### **5. Summary of proposed rules.**

The proposed rules establish minimum requirements for the installation and maintenance of carbon monoxide alarms in one- and two-family dwellings. The requirements reflect the statutory mandates of 2009 Wisconsin Act 158.

The rules would require the following:

- Carbon monoxide alarms shall be installed in a dwelling, the initial construction of which was commenced before, on or after February 1, 2011.
- In new dwellings with electrical service, the carbon monoxide alarms shall be continuously powered by the house electrical service and interconnected so that activation of one alarm will cause activation of all alarms.
- The alarms are listed and labeled in conformance with UL 2034, Underwriters Laboratories Inc, *Standard for Safety Single and Multiple Station Carbon Monoxide Alarms*.

## **6. Summary of, and comparison with, existing or proposed federal regulations.**

An Internet-based search of the *Code of Federal Regulations* (CFR) and the *Federal Register* did not identify any federal requirements for the installation and maintenance of carbon monoxide alarms in one- and two-family dwellings.

## **7. Comparison with rules in adjacent states.**

An Internet-based search for carbon monoxide alarm regulations in the states of Illinois, Iowa, Michigan and Minnesota found the following:

- **Illinois** requires the installation of carbon monoxide alarms under Public Act 094-0741, the Carbon Monoxide Alarm Detector Act, which was effective January 1, 2007. The act defines “dwelling unit” as a room or suite of rooms used for human habitation and includes a single-family residence as well as each living unit of a multiple-family residence and each living unit in a mixed-use building.
- **Iowa** requires the installation of carbon monoxide alarms in single-family rental units and multiple-unit residential buildings. .
- **Michigan** has not enacted any carbon monoxide alarm regulations for single-family residences at this time. Michigan does require as of December 1, 2009, newly constructed hotels, motels and boarding houses to install an operational carbon monoxide device.
- **Minnesota** statute, 299F.50, requires carbon monoxide alarms in all single family homes and multifamily apartments units: New construction as of January 1, 2007; existing single-family homes as of August 1, 2008; and existing multi-family and apartment buildings as of August 1, 2009.

## **8. Summary of factual data and analytical methodologies.**

In developing the proposed rules, the department reviewed the provisions under 2009 Wisconsin Act 158 in conjunction with the department's broad authority under ss. 101.02 (1) and 101.63 (1), Stats., to protect public health and safety regarding the construction of one- and two-family dwellings. For consistency, the proposed rules are modeled after other rules relating to smoke detectors, s. Comm 21.09, and carbon monoxide detectors in tourist rooming houses, s. Comm 21.097.

In addition, the review and assessment process involved the participation of the Uniform Dwelling Code (UDC) Council. The makeup of this Council is set under s. 15.157 (3), Stats. The members are appointed by the Governor's Office and represent the many stakeholders involved in the construction industry including designers, inspectors, labor and building contractors. (A listing of the UDC Council is provided at the end of this analysis.)

The UDC Council meets regularly, and the department gathers information and recommendations from its 18 members on the potential impacts of the administrative and technical requirements of the code.

## **9. Effect on small business including analysis and supporting documents used to determine effect on small business or in preparation of economic impact report.**

The proposed rules implement the mandates imposed by 2009 Wisconsin Act 158. The Act affects the owners of one- and two-family dwellings. The department does not believe the rules will increase the effect on small businesses more than that imposed by the Act.

Battery or plug-in type carbon monoxide alarms typically range in cost from \$25 to \$50. New construction installation costs for a hard-wired type carbon monoxide alarm with battery backup and interconnection ranges from \$90 to \$110 if interconnection is involved. Combination carbon monoxide alarms and smoke alarms are also available. Smoke alarms are currently required for residential occupancies. The use of combination carbon monoxide alarms and smoke alarms should result in installation and labor cost savings over that for separate systems.

An economic impact report has not been required pursuant to s. 227.137, Stats.

## **10. Agency contact person.**

Larry Swaziek, Program Manager, [larry.swaziek@wisconsin.gov](mailto:larry.swaziek@wisconsin.gov), (608) 267-7701

**11. Place where comments are to be submitted and deadline for submission.**

The hearing record on this proposed rulemaking will remain open until August 18, 2010. Written comments on the proposed rules may be submitted to Larry Swaziek, at the Department of Commerce, P.O. Box 2689, Madison, WI 53701-2689, or email larry.swaziek@wisconsin.gov.

**Council Members and Representatives**

The proposed rules have been developed with the assistance of the Uniform Dwelling Code Council. The members of this Governor-appointed council are as follows:

- Dennis Bauer.....McFarland.....Bauer & Raether Builders Inc
- Jeffrey D. Bechard .....Eau Claire .....Sheet Metal Workers (SMW) Local 18
- David Dolan-Wallace.....Green Bay.....Martinson Architects
- Thomas Doleschy.....Muskego .....Chicago Regional Council of Carpenters
- Dan Gorski .....Madison.....Veridian Homes
- Robert Jakel.....Kaukauna .....City of Kaukauna
- Brian Juarez.....Fort Atkinson.....City of Fort Atkinson, Department of Building  
Supervision
- Steven Levine .....Madison.....Wisconsin Public Service Commission
- Michael Mueller .....Milwaukee.....International Brotherhood of Electrical Workers  
(IBEW) Local 494
- Frank Opatik.....Wausau .....Opatik Engineering LLC
- Tom Palecek.....Marshfield .....Wick Building Systems
- Robert Premo.....Hartland.....Village of Brown Deer Building Inspection
- Gary Ruhl .....Oshkosh.....North East Wisconsin Building & Construction  
Trades Council
- Mary Schroeder.....Brookfield .....Miller Homes Inc
- Kathleen Stadtherr.....Green Bay.....City of Green Bay Building Inspection
- William Turner .....Hayward.....Nelson Lumber and Home
- John Vande Castle.....Fond du Lac.....Fond du Lac Mosaic Tile Co Inc
- Michael Wallace .....New Richmond.....City of Hudson Building Inspection

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SECTION 1. Comm 20.02 (4) is amended to read:

**Comm 20.02 (4) RETROACTIVITY.** The provisions of this code are not retroactive, except as ~~specified in s. Comm 21.09~~ specifically stated in a rule.

SECTION 2. Comm 20.24 Table 20.24–14 is repealed.

SECTION 3. Comm 21.097 (1) (a) is renumbered Comm 21.097 (4) (a)

SECTION 4. Comm 21.097 (1) (b) and (4) are repealed.

SECTION 5. Comm 21.097 (2), (3), (5), (6) and (7) are renumbered Comm 21.097 (4) (b), (c), (e), (g) and (h).

SECTION 6. Comm 21.097 (1), (2) and (3) are created to read:

**Comm 21.097 (1) DEFINITIONS.** In this section:

(a) “Fuel-burning appliance” has the meaning given in s. 101.647 (b), Stats. Fuel-burning appliances include stoves, ovens, grills, clothes dryers, furnaces, boilers, water heaters, fireplaces and heaters.

**Note:** Section 101.647 (1) (b), Stats., reads: “Fuel-burning appliance” means a device that is installed in a dwelling, that burns fossil fuel or carbon-based fuel, and that produces carbon monoxide as a combustion by-product.

(b) “Tourist rooming house” has the meaning given in s. DHS 195.03 (20).

**Note:** Section DHS 195.03 (20) reads: “Tourist rooming house” means all lodging places and tourist cabins and cottages, other than hotels and motels, in which sleeping accommodations are offered for pay to tourists or transients. It does not include private boarding or rooming houses not accommodating tourists or transients, or bed and breakfast establishments regulated under ch. DHS 197.

**(2) NEW CONSTRUCTION.** (a) *General.* Except as provided in sub. (4), listed and labeled carbon monoxide alarms shall be installed and maintained in accordance with s. 101.647 (2) to (6), Stats., in one and 2-family dwellings, for which building permit applications were made or construction commenced on or after February 1, 2011.

**Note:** Section 101.647 (2) to (6), Stats., reads:

**(2) INSTALLATION AND SAFETY CERTIFICATION.** The owner of a dwelling shall install any carbon monoxide detector required under this section according to the directions and specifications of the manufacturer of the carbon monoxide detector. A carbon monoxide detector required under this section shall bear an Underwriters Laboratories, Inc., listing mark and may be a device that is combined with a smoke detector.

**(3) REQUIREMENTS.** (a) The owner of a dwelling shall install a functional carbon monoxide detector in the basement of the dwelling and on each floor level except the attic, garage, or storage area of each dwelling unit. A carbon monoxide detector wired to the dwelling's electrical wiring system shall have a backup battery power supply. Except as provided under par. (b), the occupant of the dwelling unit shall maintain any carbon monoxide detector in that unit. This paragraph does not apply to the owner of a dwelling that has no attached garage, no fireplace, and no fuel-burning appliance.

(am) 1. If the building permit for the initial construction of a dwelling was issued on or after February 1, 2011, and the electrical service for the dwelling is provided by a public utility, as defined in s. 196.01 (5), the owner of the dwelling shall install each carbon monoxide detector required under par. (a) so that it is powered by the dwelling's electrical wiring system, except as provided under subd. 2.

2. The requirement that each carbon monoxide detector be installed in the manner provided under subd. 1. does not apply to a dwelling if the dwelling, when initially constructed, had no attached garage, no fireplace, and no fuel-burning appliance.

(b) If any occupant who is not the owner of a dwelling, or any person authorized by state law or by city, village, town, or county ordinance or resolution to exercise powers or duties involving inspection of real or personal property, gives written notice to the owner that the carbon monoxide detector is not functional, the owner shall provide, within 5 days after receipt of that notice, any maintenance necessary to make that carbon monoxide detector functional.

**(4) INSPECTION.** The department or person authorized by state law or by city, village, town, or county ordinance or resolution to exercise powers or duties involving inspection of real or personal property may inspect new dwellings and, at the request of the owner or renter, may inspect the interior of a dwelling unit in a dwelling to ensure compliance with this section.

**(5) LIABILITY EXEMPTION.** The owner of a dwelling is not liable for damages resulting from any of the following:

(a) A false alarm from a carbon monoxide detector if the carbon monoxide detector was reasonably maintained by the owner of the dwelling.

(b) The failure of a carbon monoxide detector to operate properly if that failure was the result of tampering with, or removal or destruction of, the carbon monoxide detector by a person other than the owner of the dwelling or the result of a faulty detector that was reasonably maintained by the owner of the dwelling.

**(6) TAMPERING PROHIBITED.** No person may tamper with, remove, destroy, disconnect, or remove batteries from an installed carbon monoxide detector, except in the course of inspection, maintenance, or replacement of the detector.

(b) *Location.* 1. On floor levels that contain one or more sleeping areas, a carbon monoxide alarm shall be installed outside of the sleeping area, within 21 feet of the centerline of the door opening to any sleeping area and in an exit path from any sleeping area.

2. On floor levels that do not contain a sleeping area, a carbon monoxide alarm shall be installed in a common area on each floor level.

(c) *Electrical service and interconnection.* 1. Except as provided in sub. 2., carbon monoxide alarms shall be continuously powered by the house electrical service, shall have a backup power supply and shall be interconnected so that activation of one alarm will cause activation of all alarms.

2. Dwellings with no electrical service shall be provided with battery-powered carbon monoxide alarms in the locations under par. (b). Interconnection is not required in these dwellings.

(d) *Standards.* The devices shall conform with one of the following standards:

1. Carbon monoxide alarms shall be listed and labeled identifying conformance with UL 2034.



**Note:** Pursuant to this subdivision, carbon monoxide alarms need to be acceptable under the 2005 edition of the UL 2034 standard, *Single and Multiple State Carbon Monoxide Alarms*.

2. Carbon monoxide detectors and sensors as part of a gas detection or emergency signaling system shall be listed and labeled identifying conformance with UL 2075.

**Note:** Pursuant to this subdivision, carbon monoxide detectors and sensors need to be acceptable under the 2007 edition of the UL 2075 standard, *Gas and Vapor Protectors and Sensors*.

(3) EXISTING DWELLINGS. Except as provided in sub. (4), listed and labeled carbon monoxide alarms shall be installed and maintained in accordance with s. 101.647 (2) to (6), Stats., in one and 2-family dwellings, for which building permit applications were made or initial construction commenced on or after June 1, 1980, and before February 1, 2011.

**Note:** See statutory reprint under s. Comm 21.097 (2) (a).

SECTION 7. Comm 21.097 (4) title, (d) and (f) are created to read:

**Comm 21.097 (4)** (title) TOURIST ROOMING HOUSES.

(d) The devices shall conform with one of the following standards:

1. Carbon monoxide alarms shall be listed and labeled identifying conformance with UL 2034.

**Note:** Pursuant to this subdivision, carbon monoxide alarms need to be acceptable under the 2005 edition of the UL 2034 standard, *Single and Multiple State Carbon Monoxide Alarms*.

2. Carbon monoxide detectors and sensors as part of a gas detection or emergency signaling system shall be listed and labeled identifying conformance with UL 2075.

**Note:** Pursuant to this subdivision, carbon monoxide detectors and sensors need to be acceptable under the 2007 edition of the UL 2075 standard, *Gas and Vapor Protectors and Sensors*.

(f) 1. For the purposes of s. 101.149 (2) (a) 4., Stats., “room” means an enclosed area affording space for any other human activity besides just servicing mechanical equipment, including fuel-burning appliances.

2. For the purposes of s. 101.149 (2) (a) 4., Stats., where a fuel-burning appliance is located within a closet or enclosed space not affording space for any other human activity within a dwelling unit or sleeping unit, a carbon monoxide alarm or detector shall be located within 75 feet of that closet or space.

SECTION 8. Comm 21.097 (4) (g) and (h) are amended to read:

**Comm 21.097 (4)** (g) Pursuant to s. 101.149 (6) (b), Stats., the department may issue orders for a violation of the provisions of this ~~section~~ subsection.

(h) Violation of the provisions of this ~~section~~ subsection shall be subject to the penalties provided under s. 101.149 (8), Stats.

SECTION 9. Chapter Comm 28 title is amended to read:

**Chapter Comm 28** (title) SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS

SECTION 10. Comm 28.01 is renumbered Comm 28.01 (1) and as renumbered is amended to read:

**Comm 28.01 (1)** The purpose of this chapter is to implement the mandates specified in ~~1987 Wis. Act 376 and 1989 Wis. Act 109 ss. 101.145 and 101.645, Stats.,~~ concerning the installation and maintenance of smoke detectors in existing dwellings in relation to the application and effective date of chs. Comm 20 to 25, Uniform Dwelling Code of the department of commerce.

SECTION 11. Comm 28.01 (2) is created to read:

**Comm 28.01 (2)** The purpose of this chapter is to implement the mandates specified in ss. 101.149 and 101.647, Stats., concerning the installation and maintenance of carbon monoxide detectors in existing dwellings in relation to the application and effective date of chs. Comm 20 to 25, Uniform Dwelling Code of the department of commerce.

SECTION 12. Comm 28.02 is renumbered Comm 28.03, and as renumbered is amended to read:

**Comm 28.03 Smoke detectors.** ~~The owner of Smoke detectors shall be installed and maintained in accordance with s. 101.645 (3), Stats., in a dwelling, the for which initial construction of which was commenced prior to before June 1, 1980, shall install and maintain smoke detectors in accordance with s. 101.645 (3), Stats.~~

**Note:** Section 101.645 (3), Stats., ~~states~~ reads: The owner of a dwelling shall install a functional smoke detector in the basement of the dwelling and on each floor level except the attic or storage area of each dwelling unit. The occupant of such a dwelling unit shall maintain any smoke detector in that unit, except that if any occupant who is not the owner, or a state, county, city, village or town officer, agent or employee charged under statute of municipal ordinance with powers or duties involving inspection of real or personal property, gives written notice to the owner that the smoke detector is not functional the owner shall provide, within 5 days after receipt of that notice, any maintenance necessary to make that smoke detector functional.<sup>22</sup>

**Note:** ~~On June 1, 1980 the uniform dwelling code, chs. Comm 20 to 25, went into effect. The code~~ Uniform Dwelling Code under s. Comm 21.09 specifies installation and maintenance requirements for smoke detectors in one- and 2-family dwellings constructed on or after June 1, 1980. The uniform dwelling code also reflects the installation and maintenance requirements specified in s. 101.645 (3), Stats.

SECTION 13. Comm 28.02 is created to read:

**Comm 28.02 Scope.** (1) Except as provided in sub. (2), the provisions of this chapter apply to a dwelling, for which initial construction commenced before June 1, 1980, where the dwelling serves as any of the following:

(a) A one- and 2-family dwelling.

**Note:** This includes a site-built dwelling, a manufactured building used as a dwelling, a modular home and a dwelling that may be designated as a cabin, seasonal home, temporary residence, etc.

(b) An adult family home providing care, treatment and services for 3 or 4 unrelated adults.

(c) A community-based residential facility providing care, treatment and services for 5 to 8 unrelated adults.

(2) (a) Carbon monoxide detectors shall be installed and maintained in accordance with s. 101.149 (2) and (3), Stats., in a dwelling serving as a tourist rooming house, for which initial construction commenced before June 1, 1980.

**Note:** Tourist rooming house has the meaning as given under s. DHS 195.03 (20) which reads: "Tourist rooming house" means all lodging places and tourist cabins and cottages, other than hotels and motels, in which sleep accommodations are offered for pay to tourists or transients. It does not include private boarding or rooming houses not accommodating tourists or transients, or bed and breakfast establishments regulated under ch. DHS 197.

**Note:** Section 101.149 (2) (b), Stats., reads: If a unit is not part of a multiunit building, the owner of the residential building need not install more than one carbon monoxide detector in the unit.

(b) A carbon monoxide detector is not required to be provided under the requirements of this chapter in a dwelling that meets the exemption under s. 101.647 (3) (a), Stats.

**Note:** Section 101.647 (3) (a), Stats., reads: The owner of a dwelling shall install a functional carbon monoxide detector in the basement of the dwelling and on each floor level except the attic, garage, or storage area of each dwelling unit. A carbon monoxide detector wired to the dwelling's electrical wiring system shall have a backup battery power supply. Except as provided under par. (b), the occupant of the dwelling unit shall maintain any carbon monoxide detector in that unit. This paragraph does not apply to the owner of a dwelling that has no attached garage, no fireplace, and no fuel-burning appliance.

SECTION 14. Comm 28.04 is created to read:

**Comm 28.04 Carbon monoxide detectors.** Carbon monoxide detectors shall be installed and maintained in accordance with s. 101.647 (2), (3) (a) and (b) and (6), Stats., in a dwelling, for which initial construction commenced before June 1, 1980.

**Note:** Section 101.647 (2), (3) (a) and (b) and (6), Stats., reads:

(2) INSTALLATION AND SAFETY CERTIFICATION. The owner of a dwelling shall install any carbon monoxide detector required under this section according to the directions and specifications of the manufacturer of the carbon monoxide detector. A carbon monoxide detector required under this section shall bear an Underwriters Laboratories, Inc., listing mark and may be a device that is combined with a smoke detector.

(3) REQUIREMENTS. (a) The owner of a dwelling shall install a functional carbon monoxide detector in the basement of the dwelling and on each floor level except the attic, garage, or storage area of each dwelling unit. A carbon monoxide detector wired to the dwelling's electrical wiring system shall have a backup battery power supply. Except as provided under par. (b), the occupant of the dwelling unit shall maintain any carbon monoxide detector in that unit. This paragraph does not apply to the owner of a dwelling that has no attached garage, no fireplace, and no fuel-burning appliance.

(b) If any occupant who is not the owner of a dwelling, or any person authorized by state law or by city, village, town, or county ordinance or resolution to exercise powers or duties involving inspection of real or personal property, gives written notice to the owner that the carbon monoxide detector is not functional, the owner shall provide, within 5 days after receipt of that notice, any maintenance necessary to make that carbon monoxide detector functional.

(6) TAMPERING PROHIBITED. No person may tamper with, remove, destroy, disconnect, or remove batteries from an installed carbon monoxide detector, except in the course of inspection, maintenance, or replacement of the detector.

**Note:** The Uniform Dwelling Code under s. Comm 21.097 specifies installation and maintenance requirements for carbon monoxide detectors in one- and 2-family dwellings constructed on or after June 1, 1980. The uniform dwelling code also reflects the installation and maintenance requirements specified in s. 101.647 (2), (3) (a) and (b) and (6) Stats.

**END**

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**EFFECTIVE DATE**

Pursuant to s. 227.22 (2) (a), Stats., these rules shall take effect February 1, 2011.

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