



To all replacement window contractors:

As the contractor, you are responsible to install the smoke detectors and carbon monoxide detectors (2020 Minnesota Building Code Administration section 1300.0120 Subpart 14). Often, homeowners are not aware of the smoke detector, (2020 MN Res Code R314), or carbon monoxide requirements, (2020 MN Res Code R315), of the building code when windows are replaced in a home.

The job site permit information needs to be on site throughout the duration of the replacement process until we perform our final inspection. Included with that information will be the smoke detector and carbon monoxide detector requirements. Inspection for all smoke and CO detectors will be performed with the contractor during the window final inspection. \*When in doubt replace detectors\*

Thank you,

**Travis Dunn**

Building Official

City of Hastings | City Hall | 101 4th Street East | Hastings, MN 55033

Direct: 651-480-2375 | Mobile: 507-272-1999 | Fax: 651-437-7082



# Smoke Detectors Information Sheet

## New construction

Single and multiple-station smoke detectors shall be installed:

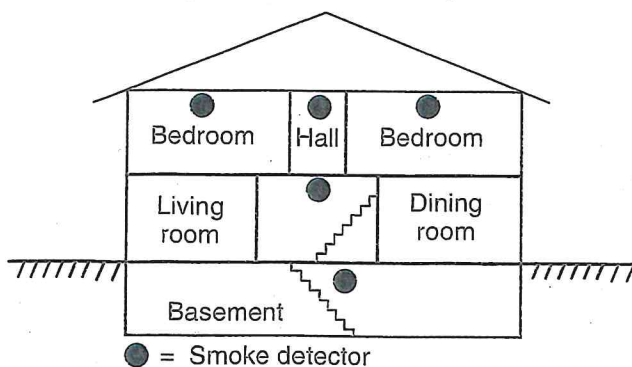
1. In each sleeping room.
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and cellars, but not crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke detector installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke detector is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the unit. **Manufacturer's instructions must be followed for proper location.**

## Power source

In new construction, the required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source. When primary power is interrupted, it shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection. Smoke detectors may be battery-operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs or additions regulated by *Section R314.4 of the 2012 IRC.*

## Single-family home detector placement



## Alterations, repairs or additions

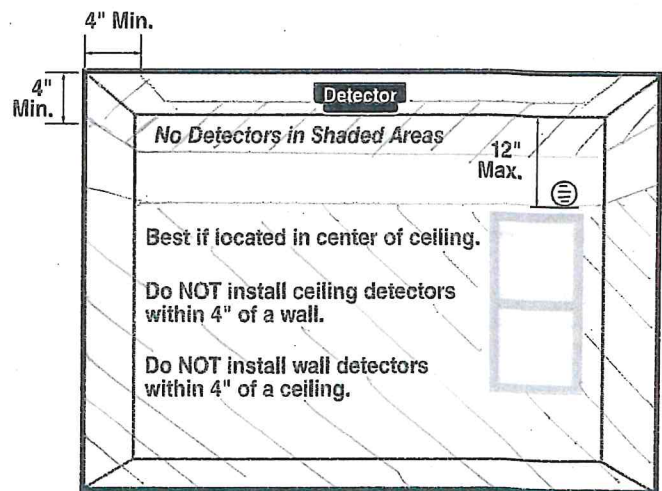
When interior alterations, repairs or additions require a permit, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke detectors located as required for new dwellings. The smoke detectors shall be interconnected and hardwired.

Exceptions:

1. Smoke detectors in existing areas shall not be required to be interconnected and hardwired where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure.
2. Work on the exterior which does not require entry into the interior for inspection; such as roofing, siding, decks and detached buildings.

## Installation in existing homes

### Smoke detector placement in sleeping room



- Smoke detectors must be mounted on the ceiling at least four inches from a wall or on a wall with the top of the detector not less than four inches, or more than 12 inches, below the ceiling.
- Smoke detectors should not be located within kitchens, garages or in other spaces where temperatures can fall below 32° F or exceed 100° F.
- Smoke detectors should not be located within three feet of supply registers for a forced air heating or cooling system and doors to a kitchen or bathroom with tub or shower because these conditions cause excessive, erratic and unreliable operations.

- Smoke detectors in rooms with ceiling slopes greater than 1-foot rise per 8 feet horizontally shall be located at the high side of the room.
- A smoke detector installed in a stairwell should be located to ensure that smoke rising in the stairwell cannot be prevented from reaching the detector by an intervening door or obstruction.
- If there are no bedrooms in the basement, the recommended location of the detector is then in close proximity to the stairway leading to the floor above.
- Smoke detectors should not be located within 36 inches horizontally of ceiling fan blades.
- Life expectancy of smoke detectors is about 10 years. When replacing a hardwired smoke detector the replacement must also be hardwired.
- Smoke detectors must be adequately secured.
- In all cases install smoke detectors according to the manufacturer's instructions.

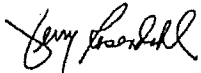



## MINNESOTA DEPARTMENT OF LABOR & INDUSTRY

### OFFICE MEMORANDUM

DATE: July 3, 2006

TO: Code Officials, Design Professionals, Contractors, and Suppliers

FROM:   
Jerry Rosendahl  
State Fire Marshal

  
Thomas Joachim  
State Building Official

SUBJECT: Carbon Monoxide Alarms

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**Background:** The 2006 legislative session passed a new carbon monoxide (CO) law (Minn. Stat. § 299F.50) requiring CO alarms in all single-family homes and multifamily apartment units. Every single-family dwelling and every multifamily dwelling unit shall be provided with an approved and fully operational carbon monoxide alarm.

#### Effective Dates:

- Effective January 1, 2007 all newly constructed single family homes and multifamily dwelling units for which building permits were issued on or after January 1, 2007 shall be provided with an approved carbon monoxide alarm
- Effective August 1, 2008, all existing single family homes shall be equipped with an approved carbon monoxide alarm meeting U/L specifications.
- Effective August 1, 2009 all other multifamily or apartment dwelling units shall be provided with approved CO alarm.

#### General Location Requirements:

- Within ten (10) feet of each room lawfully used for sleeping purposes.

#### Listing or Certification of Detectors:

- All CO alarms shall be certified by a nationally recognized testing laboratory to conform to the latest Underwriters Laboratory (UL) Standards (also known as UL2034 Standards).

#### Owner Responsibilities in Multifamily Dwellings:

- It shall be the owner's responsibility of a multifamily dwelling that is required to be equipped with carbon monoxide alarms to:

- (1) Provide and install one approved and operational carbon monoxide alarm within ten feet of each room lawfully used for sleeping; and
- (2) Replace any required carbon monoxide alarm that has been stolen, removed, found missing, or rendered inoperable during a prior occupancy of the dwelling unit and which has not been replaced by the occupant prior to the commencement of a new occupancy of a dwelling unit.

**Power:**

- CO alarms must be either be hardwired into the electrical wiring, directly plugged into an electrical outlet without a switch, or battery powered.

**Battery Removal and Tampering Prohibited:**

- No person shall remove batteries from, or in any way render inoperable, a required carbon monoxide alarm.

**Exceptions for Certain Multifamily Dwellings and State-Operated Facilities:**

- Multifamily dwellings may have approved and operational carbon monoxide alarms installed between 15 and 25 feet of carbon monoxide producing central fixtures and equipment provided there is a centralized alarm system or other mechanism for responsible parties to hear the alarm at all times.
- An owner of a multifamily dwelling that contains minimal or no sources of carbon monoxide may be exempted from the requirements provided that such owner certifies to the commissioner of public safety that such multifamily dwelling poses no foreseeable carbon monoxide risk to the health and safety to the dwelling units.
- The requirements of this section do not apply to facilities owned or operated by the state of Minnesota.

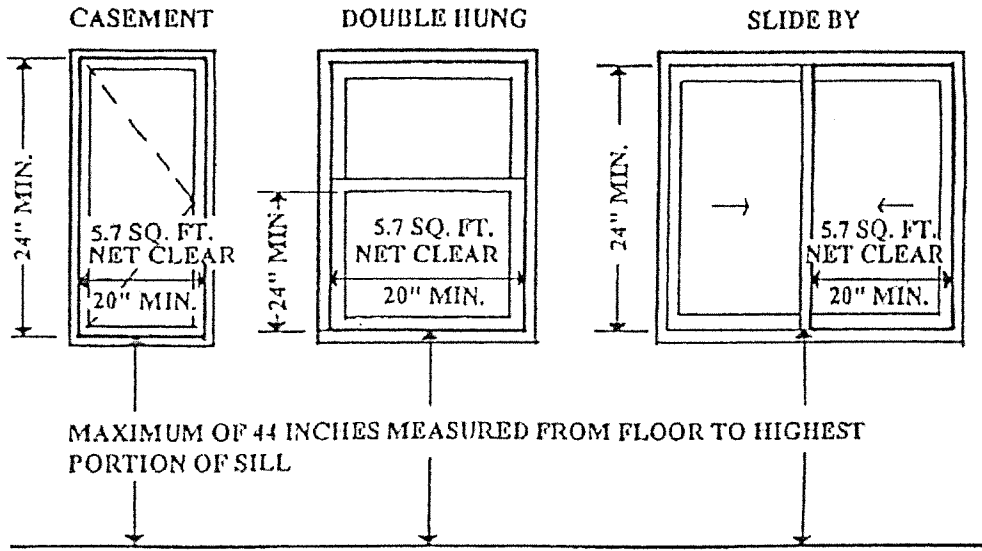
**Enforcement:**

- Building and Fire officials should collaborate on enforcement of this new law. For example plan review comments for new residential buildings permitted after January 1, 2007 should cite MS 299F.50 to ensure the new law is understood before construction proceeds.

If you have additional questions or need further information on the carbon monoxide legislation please contact the State Fire Marshal Division at 651-201-7200, visit our web site at [www.fire.state.mn.us](http://www.fire.state.mn.us) or e-mail your questions to [firecode@state.mn.us](mailto:firecode@state.mn.us).

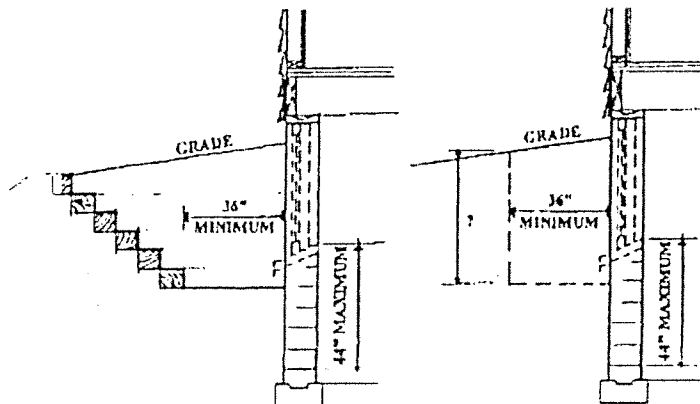
You may also visit the Department of Labor and Industry web site at <http://www.doli.state.mn.us> or call 651-284-5012

# ESCAPE OR RESCUE WINDOWS



2000 IRC 310.1

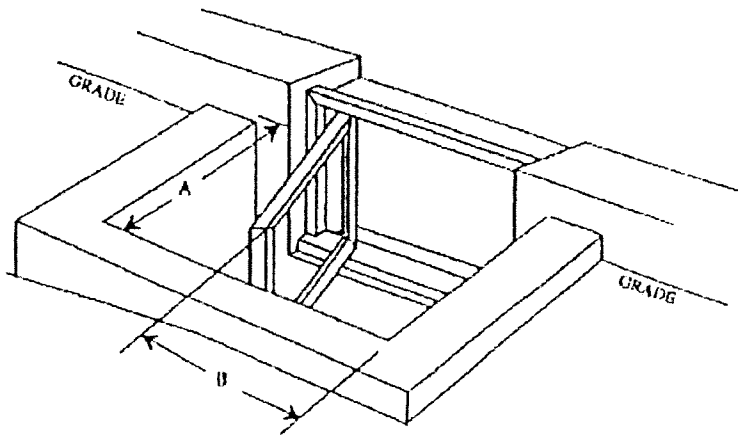
## ESCAPE AND RESCUE WINDOWS WITH A FINISHED SILL HEIGHT BELOW ADJACENT GRADE LEVEL SHALL HAVE A WINDOW WELL



IRC 310.1

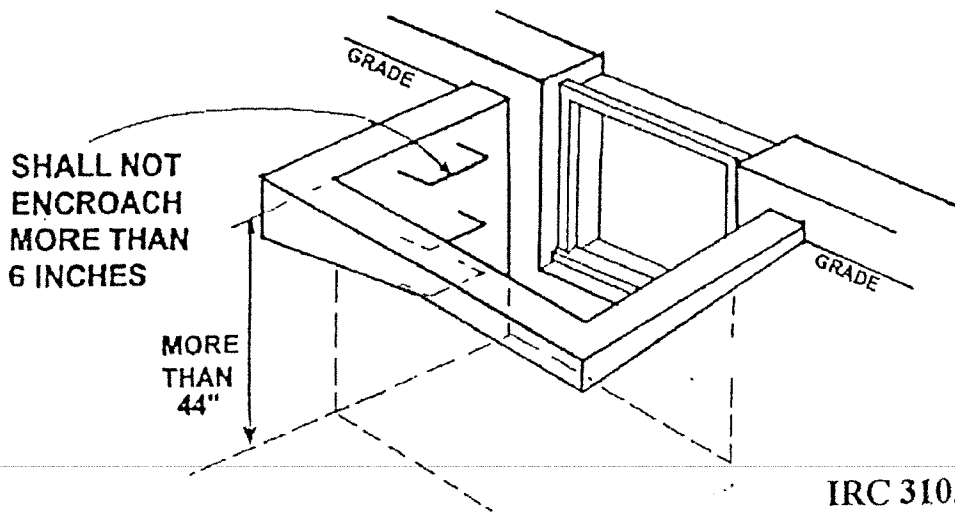
# ESCAPE OR RESCUE WINDOW WELLS

THE CLEAR HORIZONTAL DIMENSIONS SHALL ALLOW THE WINDOW TO BE FULLY OPENED AND PROVIDE A MINIMUM ACCESSIBLE NET CLEAR OPENING OF 9 SQUARE FEET, WITH A MINIMUM DIMENSION OF 36 INCHES.



IRC 310.2

WINDOW WELLS WITH A VERTICAL DEPTH OF MORE THAN 44 INCHES SHALL BE EQUIPPED WITH AN APPROVED PERMANENTLY AFFIXED LADDER OR STAIR THAT ARE ACCESSIBLE WITH THE WINDOW FULLY OPEN



IRC 310.2