Smoke Alarms and Carbon Monoxide Alarms

References: 2015 Minnesota Residential Building Code Section R314 and R315

Systems: All smoke alarms shall be listed in accordance with UL 217 and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72.

Location: Smoke alarms shall be installed in the following locations.
1. In each sleeping room.
2. Outside each sleeping room in the immediate vicinity.
3. On each additional story of the dwelling, including basements
4. In the upper level of a split level with no intervening door.
5. In both levels of a split level with an intervening door.
Smoke alarms are not required in crawl spaces and uninhabitable attics.

Interconnection: When more than one smoke alarm is required, the alarm devices shall be interconnected so that actuating one alarm will activate all of the alarms in the dwelling.

Power source: Smoke alarms shall receive their primary power from the building wiring and shall receive power from a battery when primary power is interrupted.

Accepted Alternate: Household fire alarm systems will fulfill smoke alarm requirements if:
1. They are installed in accordance with NFPA 72,
2. Detectors are located as required in the code, and
3. The system has audible notification as for interconnected devices, and
4. Two sources of power are provided, and
5. The system remains fully operational in the event the fire alarm panel is removed or the system is not connected to a central station.

Alterations, repairs or additions: When alterations, repairs, or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, smoke alarms shall be installed which are located, interconnected and powered as required for new dwellings.

Exceptions:
1. Interconnection and hardwiring of smoke alarms in existing areas shall not be required where the alterations do not result in the removal of interior wall or ceiling finishes exposing the structure.
2. Work on the exterior surfaces of dwellings, such as the replacement of roofing or siding are exempt from the requirements of this section.
3. Permits for alterations or repairs to plumbing, electrical, and mechanical are exempt from the requirements of this section.

Carbon Monoxide (CO) Alarms: All Minnesota residences are to have Carbon Monoxide (CO) detectors installed when one of the following conditions occur:
1. Fuel-fired appliances are installed or,
2. Have attached garage(s).

Location: Carbon Monoxide (CO) alarms shall be installed in the following locations:
1. CO detectors shall be placed within ten (10) feet outside of each sleeping room.
2. CO detectors may be wired to the premises wiring or battery operated and
3. CO detectors shall be listed in accordance with UL 2075. To be installed in accordance with the provisions of this code and installed per the manufactures instructions.
2 Stories with a Basement

2ND FLOOR PLAN

BEDROOM
HALL
DN
BATH
CL
BEDROOM
SA
SA

1ST FLOOR PLAN

DINING
KITCHEN
UP
LIVING AREA
DN
SA
SA

BASEMENT PLAN

UP

(©) SMOKE ALARM

Split Level with a Basement

UPPER LEVEL PLAN

BEDROOM
KITCHEN
DN
BATH
UP

LOWER LEVEL PLAN

BASEMENT/FAMILY ROOM
SA

CRAWL SPACE

(©) SMOKE ALARM

ADDITIONS AND INTERIOR REPAIRS

EXISTING STRUCTURE:
SMOKE ALARMS
HARD WIRED WITH BATTERY BACK UP (INTERCONNECTION, AND HARD WIRING NOT REQUIRED UNLESS WALLS AND CEILINGS IN THESE AREAS ARE REMOVED

SMOKE ALARM AS REQUIRED FOR NEW CONSTRUCTION

2015 Minnesota Residential Building Code
International fire code 907

This handout is written as a guide to common questions and concerns. It is not intended nor shall it be considered a complete set of requirements.