



LEBANON FIRE DEPARTMENT

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One and Two Family Home Construction Requirements

The City of Lebanon Fire Department, Fire Prevention Bureau has prepared this informational sheet to help guide you through some of the more important code requirements dealing with the construction of a one or two family home. These items need to be complete in order for a Certificate of Occupancy to be issued. During the construction you are encouraged to request an inspection by the Fire Prevention Bureau to help uncover any potential issues that would prevent a Certificate of Occupancy being issued. If you wish to receive more information or would like to discuss any questions that you may have please do not hesitate to contact the Fire Prevention Bureau.

- Is the street number visible from the street, posted in arabic numerals that contrast with their background?
- Are all outside stairs serving an exit in good condition. (More than three stairs requires handrails.)
- Does every sleeping room and every living area have at least one primary means of escape and one secondary means of escape? (Every story more than 2000ft² in area within the dwelling unit shall have two primary means of escape that are remotely located from each other unless the building has been provided with an approved fire sprinkler system.)
 - ◇ Per the 2003 NFPA 101, Life Safety Code a means of escape is defined as: a way out of a building or structure that does not conform to the strict definition of means of egress but does provide a way out. The door that the occupants normally use to enter and leave the dwelling can typically serve as the primary means of escape.
- Secondary means of escape shall be:
 - (A) A door, stairway, passage, or hall providing travel to the outside of the dwelling at street or ground level that is independent of and remote from the primary means of escape.
 - (B) A passage through an adjacent nonlockable space, independent of and remote from the primary means of escape, to any approved means of escape.
 - (C) An outside window or door operable from the inside without the use of tools, keys, or special effort that provides a clear opening of not less than 5.7ft². The width shall not be less than 20 in. and the height not less than 24 in. The bottom of the opening shall be not more than 44 in. above the floor. Such means of escape shall be acceptable where one of the following criteria are met:

Smoke Detectors Save Lives

- (1) The window is within 20 ft of grade
- (2) The window is directly accessible to fire dept. rescue apparatus as approved.
- (3) The window or door opens onto an exterior balcony.
- (4) Windows having a sill height below the adjacent ground level shall be provided with a window well.
(Please contact the Fire Prevention Bureau for these requirements.)

- Have smoke detectors been installed in the following locations:
 1. In all sleeping rooms
 2. Outside each sleeping area, in the immediate vicinity of the sleeping rooms.
 3. On each level of the residence, including basements.
- Are all smoke detectors connected to house electricity and are they interconnected?
- Are doors in the means of escape at least 28 in. wide and 78 in. tall?
- Bathroom doors shall not be less than 24 in. wide and 78 in. tall.
- Closet door latches shall be such that children can open the door from inside the closet.
- Every bathroom door shall be designed to allow opening from the outside during an emergency when locked.
- Doors with locking devices shall be easily disengaged from inside of the building. Ordinary double-cylinder locks and key-operated chain locks are prohibited.
- Interior stairways shall be provided with adequate lighting.
- The clear width of stairs, landings, ramps, balconies, and porches shall be not less than 36 in.
- Hallways shall be not less than 36 in. in width and 84 in. in height.
- Bulkhead enclosures shall provide direct access to the basement from the exterior where provided.

105.7 Required construction permits. The code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.12.

105.7.1 Automatic fire-extinguishing system. A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.2 Compressed gases. When the compressed gases in use or storage exceed the amounts listed in Table 105.6.9, a construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a compressed gas system.

Exceptions:

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

The permit applicant shall apply for approval to close storage, use or handling facilities at least 30 days prior to the termination of the storage, use or handling of compressed or liquefied gases. Such applications shall include any change or alteration of the facility closure plan filed pursuant to Section 2701.5.3. The 30-day period is not applicable when approved based on special circumstances requiring such waiver.

105.7.3 Fire alarm and detection systems and related equipment. A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.4 Fire pumps and related equipment. A construction permit is required for installation or modification to fire pumps and related fuel tanks, jockey pumps, controllers, and generators. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.5 Flammable and combustible liquids. A construction permit is required:

1. To repair or modify a pipeline for the transportation of flammable or combustible liquids.
2. To install, construct or alter tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
3. To install, alter, remove, abandon, place temporarily out of service or otherwise dispose of a flammable or combustible liquid tank.

105.7.6 Hazardous materials. A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 27 when the hazardous materials in use or storage exceed the amounts listed in Table 105.6.21.

Exceptions:

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.7 Industrial ovens. A construction permit is required for the installation of industrial ovens covered by Chapter 21.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.8 LP-gas. A construction permit is required for installation of or modification to an LP-gas system.

105.7.9 Private fire hydrants. A construction permit is

required for the installation or modification of private fire hydrants.

105.7.10 Spraying or dipping. A construction permit is required to install or modify a spray room, dip tank or both.

105.7.11 Standpipe systems. A construction permit is required for the installation, modification, or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.12 Temporary membrane structures, tents, and canopies. A construction permit is required to erect an air-supported temporary membrane structure or tent having an area in excess of 200 square feet (19 m²), or a canopy in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
3. Fabric canopies and awnings open on all sides which comply with the following:
 - 3.1 Individual canopies shall have a maximum size of 700 square feet (65 m²).
 - 3.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 3.3 A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.

105.6 Required operational permits. A permit shall be obtained from the Lebanon Fire Prevention Bureau prior to engaging in any of the following activities, operations, practices, or functions.

105.6.1 Aerosol products. To manufacture, store or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.

105.6.2 Amusement buildings. To operate a special amusement building.

105.6.3 Aviation facilities. To use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles.

105.6.4 Carnivals and fairs. To conduct a carnival or fair.

105.6.5 Battery systems. To install stationary lead-acid battery systems having a liquid capacity of more than 50 gallons (189 L).

105.6.6 Cellulose nitrate film. To store, handle or use cellulose nitrate film in a Group A occupancy.

105.6.7 Combustible dust-producing operations. To operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts.

105.6.8 Combustible fibers. To store or handle combustible fibers in quantities greater than 100 cubic feet (2.8 m³).

105.6.9 Compressed gases. To store, use or handle at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed in Table 105.6.9

Exception: Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.

Table 105.6.9
Permit Amounts for Compressed Gases

Type of Gas	Amount (Cubic feet at NTP)
Corrosive	200
Flammable (except cryogenic fluids and liquified petroleum gases)	200
Highly Toxic	Any Amount

Inert and simple asphyxiant	6,000
Oxidizing (including oxygen)	504
Toxic	Any Amount

105.6.10 Covered mall buildings. Permit required for:

1. The placement or retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.

2. The display of liquid- or gas-fired equipment in the mall.

3. The use of open-flame or flame-producing equipment in the mall.

105.6.11 Cryogenic fluids. To produce, store, transport on site, use, handle, or dispense cryogenic fluids in excess of the amounts listed in Table 105.6.11.

Exception: Permits are not required for vehicles equipped for and using cryogenic fluids as a fuel for propelling the vehicle or for refrigerating the lading.

Table 105.6.11
Permit Amounts for Cryogenic Fluids

Type of Cryogenic Fluid	Inside Building (Gallons)	Outside Building (Gallons)
Flammable	More than 1	60
Inert	60	500
Oxidizing (includes oxygen)	10	50
Physical or health hazard not indicated above	Any Amount	Any Amount

105.6.12 Cutting and welding. To conduct cutting or welding operations within the jurisdiction.

105.6.13 Dry Cleaning Plants. To engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment.

105.6.14 Exhibits and trade shows. To operate exhibits and trade shows.

105.6.15 Explosives. To manufacture, store, handle, sell, or use any quantity of explosive, explosive material, fireworks, or pyrotechnic special effects within the scope of Chapter 33.

105.6.16 Fire hydrants and valves. To use or operate fire hydrants or valves intended for fire suppression purposes which are installed on water systems and accessible to a fire apparatus access road that is open or generally used by the public.

Exception: A permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.

105.6.17 Flammable and combustible liquids. An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site pipelines regulated by the DOT nor does it apply to piping systems.

2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:

2.1 The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the code official, would cause an unsafe condition.

2.2 The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purpose for a period of not more than 30 days.

3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil burning equipment.

4. To remove Class I or Class II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary onsite pumps normally used for the dispensing purposes.

5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.

6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days) or otherwise dispose of an underground, protected above-ground or above-ground flammable or combustible liquid tank.

7. To change the type of contents stored in flammable or combustible liquid tank to a material which poses a greater hazard than that for which the tank was designed and constructed.

8. To manufacture, process, blend or refine flammable or combustible liquids.

105.6.18 Floor finishing. For floor finishing or surfacing operations exceeding 350 square feet (33 m²) using Class I or Class II liquids.

105.6.19 Fruit and crop ripening. To operate a fruit-, or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.

105.6.20 Fumigation and thermal insecticidal fogging. To operate a business of fumigation or thermal insecticidal fogging and to maintain a room, vault or chamber in which a toxic or flammable fumigant is used.

105.6.21 Hazardous materials. To store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed in Table 105.6.21.

105.6.22 HPM facilities. To store, handle, or use hazardous production materials.

105.6.23 High-piled storage. To use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m²).

105.6.24 Hot work operations. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.

2. Use of portable hot work equipment inside a structure.

Exception: Work that is conducted under a construction permit.

3. Fixed-site hot work equipment such as welding booths.
4. Hot work conducted within a hazardous fire area.
5. Application of roof coverings with the use of an open flame device.
6. When approved, the code official shall issue a permit to carry out a Hot Work Program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in this chapter. These permits shall be issued only to their employees or hot work operations under their supervision.

105.6.25 Industrial Ovens. For operation of industrial ovens regulated by Chapter 21.

105.6.26 Lumber yards and woodworking plants. For the storage or processing of lumber exceeding 100,000 board feet (8,333 ft³)(236 m³).

105.6.27 Liquid- or gas-fired vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid- or gas-fired fuel vehicles or equipment in assembly buildings.

105.6.28 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas.

Exception: A permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less serving occupancies in Group R-3.

2. Operation of cargo tankers that transport LP-gas.

105.6.29 Magnesium. To melt, heat treat or grind more than 10 pounds (4.54 kg) of magnesium.

105.6.30 Miscellaneous combustible storage. To store in any building or upon any premises in excess

of 2,500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.

105.6.31 Open Burning. For the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to.

Exception: Recreational fires.

105.6.32 Open flames and candles. To remove paint with a torch; use a torch or open flame device in a hazardous fire area; or to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.

105.6.33 Organic coatings. For any organic-coating manufacturing operation producing more than 1 gallon (4 L) of an organic coating in one day.

105.6.34 Places of assembly. To operate a place of assembly.

105.6.35 Private fire hydrants. For the removal from service, use or operation of private fire hydrants.

Exception: A permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.

105.6.36 Pyrotechnic special events material. For use and handling of pyrotechnic special effects material.

105.6.37 Pyroxylin plastics. For storage and handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.

105.6.38 Refrigeration equipment. To operate a mechanical refrigeration unit or system regulated by Chapter 6.

105.6.39 Repair garages and service stations. For operation of repair garages and automotive, marine and fleet service stations.

105.6.40 Rooftop heliports. For the operation of a rooftop heliport.

105.6.41 Spraying or dipping. To conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 15.

105.6.42 Storage of scrap tires and tire byproducts. To establish, conduct or maintain storage of scrap tires and tire byproducts that exceeds 2,500 cubic feet (71 m³) of total volume of scrap tires and for indoor storage of tires and tire byproducts.

105.6.43 Temporary membrane structures, tents and canopies. To operate an air-supported temporary membrane structure or tent having an area in excess of 200 square feet (19 m²), or a canopy in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies and awnings open on all sides which comply with the following:
 - 2.1 Individual canopies shall have a maximum size of 700 square feet (65 m²).
 - 2.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 2.3 A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

105.6.44 Tire-rebuilding plants. For the operation and maintenance of a tire rebuilding plant.

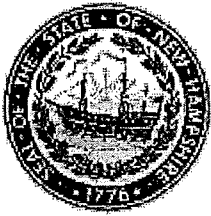
105.6.45 Waste handling. For the operation of wrecking yards, junk yards and waste material-handling facilities.

105.6.46 Wood products. To store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m³).

**Table 105.6.21
Permit Amounts for Hazardous Materials**

Type of Material	Amount
Combustible liquids	See Section 105.6.17
Corrosive materials Gases Liquids Solids	See Section 105.6.10 55 Gallons 1000 pounds
Explosive materials	See Section 105.6.15
Flammable materials Gases Liquids Solids	See Section 105.6.10 See Section 105.6.17 100 pounds
Highly toxic materials Gases Liquids Solids	See Section 105.6.10 Any Amount Any Amount
Oxidizing Materials Gases Liquids Class 4 Class 3 Class 2 Class 1 Solids Class 4 Class 3 Class 2 Class 1	See Section 105.6.10 Any Amount 1 gallon 10 gallons 55 gallons Any Amount 10 pounds 100 pounds 500 pounds
Organic Peroxides Liquids Class I Class II Class III Class IV Class V Solids Class I Class II Class III Class IV Class V	Any Amount Any Amount 1 gallon 2 gallons No Permit Required Any Amount Any Amount 10 pounds 20 pounds No Permit Required
Pyrophoric materials Gases Liquids Solids	See Section 105.6.10 Any Amount Any Amount

<p>Toxic materials</p> <ul style="list-style-type: none"> Gases Liquids Solids 	<p>See Section 105.6.10</p> <p>10 gallons</p> <p>100 pounds</p>
<p>Unstable (reactive) materials</p> <ul style="list-style-type: none"> Liquids <ul style="list-style-type: none"> Class 4 Class 3 Class 2 Class 1 Solids <ul style="list-style-type: none"> Class 4 Class 3 Class 2 Class 1 	<p>Any Amount</p> <p>Any Amount</p> <p>5 gallons</p> <p>10 gallons</p> <p>Any Amount</p> <p>Any Amount</p> <p>50 pounds</p> <p>100 pounds</p>
<p>Water-reactive Materials</p> <ul style="list-style-type: none"> Liquids <ul style="list-style-type: none"> Class 3 Class 2 Class 1 Solids <ul style="list-style-type: none"> Class 3 Class 2 Class 1 	<p>Any Amount</p> <p>5 gallons</p> <p>55 gallons</p> <p>Any Amount</p> <p>50 pounds</p> <p>500 pounds</p>



STATE OF NEW HAMPSHIRE DEPARTMENT OF SAFETY
John J. Barthelmes, Commissioner



Division of Fire Safety
OFFICE OF THE STATE FIRE MARSHAL
J. William Degnan, State Fire Marshal

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BULLETIN #	TITLE			DATE ISSUED
2015-01	Smoke Alarm Device Requirements in Dwellings			January 16, 2015
SUPERSEDES	RELEASED BY	APPROVED BY	SOURCE	SUPERSEDED BY
2008-01	DLC	KAR	RSA 153:10-a; Saf-C 6000, NFPA 101	

Informational Bulletin 2015-01
Smoke Alarm Device Requirements in Dwellings

Purpose:

The purpose of the bulletin is to provide information as to the current requirements for smoke alarms in single-family dwellings as well as multi-unit dwellings and rental units.

Definitions:

Automatic fire warning device - means a wall or ceiling mounted assembly containing an ionization chamber or photoelectric type of smoke detector, control equipment, and audible alarm in one unit which detects visible or invisible particles of combustion and which, upon detection of smoke, activates the alarm.

Building - means any structure, framework or housing, public or private, excluding single-family dwellings and multi-unit dwellings as defined, but including tanks, receptacles and containers for the storage of commodities or other materials.

Multi-unit Dwelling - means any structure not defined above as a building, which contains two or more single units which provide permanent or transient living facilities which may or may not include cooking and eating facilities, for one or more persons. This term shall include but not be limited to: rooming houses, dormitories, motels, hotels, apartment buildings, buildings which contain condominium units, duplexes, and houses; provided, however, that such buildings contain two or more units.

Rental Unit - means any residential unit in a building or single-family dwelling, which provides permanent or transient living facilities for one or more persons, which is occupied by tenants on a rental basis. This term shall include but not be limited to: hotels, motels, dormitories, apartments, duplex units, rooms rented out of the home of another, and single-family dwellings, so long as they are rented.

Single-Family Dwelling - means any structure not defined above as a building which contains one dwelling unit, which is designed to be occupied for living purposes, and which is used by one, two or more families exclusively as a home.

Substantially Rehabilitated - means any improvement to a building or single-family dwelling, which is valued at an amount greater than 1/2 of the assessed valuation of the building or dwelling. Please note this amount is based on the assessed value not the resale value.

1.) SINGLE-FAMILY DWELLINGS

When They Are Required:

Smoke alarms shall be installed in all single-family dwellings. (1) (2)

Locations of Installation:

Smoke alarms shall be installed in the following locations:

- (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 but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split-levels and without an intervening door between the adjacent levels, a smoke alarm 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. (1) (2)

Powering the Detectors:

New Construction:

Smoke alarms shall receive their primary power from the building's wiring (hardwired) and when the primary power is interrupted shall receive power from a battery (battery backup). (1)

Existing with Alterations, Repairs and Additions:

When there are alterations, repairs and additions requiring a permit or when one or more sleeping rooms are added, the individual dwelling unit shall be equipped with new smoke alarms located as required for new dwellings. (1)

Exceptions to Existing with Alterations, Repairs and Additions

1. Hardwiring of smoke alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring without the removal of interior finishes. (1)
2. Work involving the exterior surface of the dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck. (1)

Existing:

In existing single-family dwellings, approved smoke alarms powered by batteries shall be permitted. Please check with the local Authority Having Jurisdiction in reference to which smoke alarms and batteries are approved. (2)

2.) MULTI-UNIT DWELLINGS AND RENTAL UNITS

When They Are Required:

Multi-unit dwellings and rental units shall be equipped with automatic fire warning devices. (3)

Locations of Installation:

Smoke alarms shall be installed in the following locations:

- (1) On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of the bedrooms.
- (2) In each room used for sleeping purposes.
- (3) In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split-levels and without an intervening door between the adjacent levels, a smoke alarm 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. (4)

Powering the Detectors:

New and Existing Construction:

All automatic fire warning devices in multi-unit dwellings, and all rental units shall be powered by the house electrical service (hardwired.) (5)

Required Interconnection of the Detectors:

New Construction and Existing Construction:

When more than one smoke alarm is required to be installed within an individual dwelling unit or sleeping unit the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms with all intervening doors closed and also taking into account any ambient noise. Interconnection within the unit is required, not within the building. Wireless interconnection systems are permitted. (4) (6)

3.) GENERAL REQUIREMENTS (BOTH SINGLE-FAMILY AND MULTI-FAMILY DWELLINGS)

Combination Smoke/Carbon Monoxide Devices: (Single, Multi and Rentals)

Combination devices are permitted provided that they meet the requirements of UL 217 and UL2034. (1)

Interconnected and combination devices must be compatible with all of the other devices connected to that system/circuit. (5)

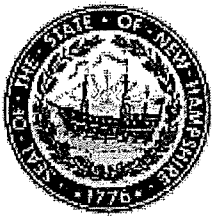
Please note: Some combination devices utilize ionization type smoke detection. If photo-electric type detection is required then an ionization combination detector may not be code compliant.

Maintenance of Devices Required: (Single-Family, Multi-Unit and Rentals)

The owner of the rental unit shall be responsible for maintaining the automatic fire warning device in a suitable condition. (3)

References:

- (1) International Residential Code 2009 Edition, section R 314.
- (2) NFPA 101 Life Safety Code 2009 Edition, Ch. 24.3.4.
- (3) NH Fire Laws Annotated 153:10-a.
- (4) International Building Code 2009 Edition, section 907.2.11.
- (5) NH Administrative Rules, State Fire Code, Chapter Saf-C 6015.
- (6) NFPA 1 Fire Code 2009 Edition, Ch. 13.7.1.4.9.



STATE OF NEW HAMPSHIRE DEPARTMENT OF SAFETY
John J. Barthelmes, Commissioner



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BULLETIN #	TITLE			DATE ISSUED
2015-02	Carbon Monoxide Detection Devices in Dwellings			January 16, 2015
SUPERSEDES	RELEASED BY	APPROVED BY	SOURCE	SUPERSEDED BY
2009-07	DLC	KAR	RSA 153:10-a, Saf-C 6000, NFPA 720	

Informational Bulletin 2015-02
Carbon Monoxide Detection Devices in Dwellings

Purpose:

The purpose of this bulletin is to provide information as to the current requirements for Carbon Monoxide Detectors (CMD) in single-family dwellings as well as multi-unit dwellings and rental units.

Definitions:

Building - means any structure, framework or housing, public or private, excluding single-family dwellings and multi-unit dwellings as defined, but including tanks, receptacles and containers for the storage of commodities or other materials.

Carbon Monoxide Detector - An alarm intended for the purpose of detecting carbon monoxide gas and alerting occupants by a distinct audible signal comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in a single unit operated from a power source either located in the unit or obtained at the point of installation.

Multi-Unit Dwelling - means any structure not defined above as building, which contains two or more single units, which provide permanent or transient living facilities, which may or may not include cooking and eating facilities, for one or more persons. This term shall include but not be limited to: rooming houses, dormitories, motels, hotels, apartment buildings, buildings which contain condominium units, duplexes, and houses; provided, however, that such buildings contain two or more units.

Rental Unit - means any residential unit in a building or single-family dwelling, which provides permanent or transient living facilities for one or more persons, which is occupied by tenants on a rental basis. This term shall include but not be limited to: hotels, motels, dormitories, apartments, duplex units, rooms rented out of the home of another, and single family dwellings, so long as they are rented.

Single-Family Dwelling - means any structure not defined above as building, which contains one dwelling unit, which is designed to be occupied for living purposes, and which is used by one, two or more families exclusively as a home.

Substantially Rehabilitated - means any improvement to a building or single-family dwelling, which is valued at an amount greater than 1/2 of the *assessed* valuation of the building or dwelling. Please note this amount is based on the assessed value not the resale value.

1.) SINGLE-FAMILY DWELLINGS

When They Are Required:

Every single-family dwelling, which is built or substantially rehabilitated after January 1, 2010, shall be equipped with carbon monoxide detection devices. (1)

Exception

A carbon monoxide detection device shall not be required if the single-family dwelling does not have an attached garage and does not contain an appliance or device that uses a combustion method of burning solid, liquid, or gas fuel. If a garage or combustion fuel appliance or device is later added to the dwelling, carbon monoxide detection devices shall be required. (1)

Locations of Installation:

Carbon monoxide alarms or detectors shall be installed as follows:

- (1) Outside each separate dwelling unit sleeping area in the immediate vicinity of the bedrooms.
- (2) On every occupiable level of a dwelling unit, including basements, excluding attics and crawl spaces.
- (3) Each individual dwelling unit contained in a multi-unit dwelling shall be equipped with a carbon monoxide alarm or detector as required above. (2)

Each detector shall be located on the wall, ceiling, or other location as specified in the manufacturer's published instructions that accompany the unit. (3)

Powering the Detectors:

New Construction:

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial power source, and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. (7)

Exception

1. Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power. (7)

Existing Construction:

At this time, carbon monoxide detectors are not required to be hardwired. (5)

2.) MULTI-UNIT DWELLINGS AND RENTAL UNITS

When They Are Required:

Each multi-unit dwelling and rental unit shall be equipped with carbon monoxide detection devices. (1)

Exception

A carbon monoxide detection device shall not be required in a multi-unit dwelling or rental unit that does not have an attached garage and does not contain an appliance or device that uses a combustion method of burning solid, liquid, or gas fuel. If a garage or combustion fuel appliance or device is later added to the dwelling, carbon monoxide detection devices shall be required. (1)

Locations of Installation:

Carbon monoxide alarms or detectors shall be installed as follows:

- (1) Outside each separate dwelling unit sleeping area in the immediate vicinity of the bedrooms.
- (2) On every occupiable level of a dwelling unit, including basements, excluding attics and crawl spaces.
- (3) Each individual dwelling unit contained in a multi-unit dwelling shall be equipped with a carbon monoxide alarm or detector as required above. (2)

Each detector shall be located on the wall, ceiling, or other location as specified in the manufacturer's published instructions that accompany the unit. (3)

Powering the Detectors:

New Construction:

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial power source, and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. (6)

Exception

Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative. (6)

Existing Construction:

At least two independent and reliable power supplies shall be provided, one primary and one secondary; each of which shall be of adequate capacity for the application. At this time, carbon monoxide detectors are not required to be hardwired. (4)

Detectors may be connected to, and powered by, a commercial fire alarm system within a building. Detectors connected to commercial fire alarm systems shall be installed in accordance with the requirements of NFPA 72 and NFPA 720. (1)

3.) GENERAL REQUIREMENTS (BOTH SINGLE-FAMILY AND MULTI-FAMILY DWELLINGS)

Combination Smoke/Carbon Monoxide Devices: (Single, Multi and Rentals)

Combination devices are permitted provided that they meet the requirements of UL 217 and UL2034. (6)

Maintenance of Devices Required: (Single-Family, Multi-Unit and Rentals)

(a) The owner of a single-family dwelling, multi-unit dwelling and/or rental unit shall be responsible for maintaining all carbon monoxide alarms or detectors in good working order. (1)

(b) No person, tenant or occupant of a multi-unit dwelling and/or rental unit shall remove any battery from a carbon monoxide alarm or detector, disconnect the primary power to a carbon monoxide alarm or detector, or tamper with or otherwise render inoperable any carbon monoxide alarm or detector. (2)

References:

- (1) NH Fire Laws Annotated 153:10-a
- (2) NH Administrative Rules, State Fire Code, Chapter Saf-C-6015
- (3) NFPA 720 2009 Edition, Ch. 9.4.1.2
- (4) NFPA 720 2009 Edition, Ch. 4.4.1.3.1
- (5) International Residential Code 2009 Edition, section 315.1
- (6) **International Building Code 2015 Edition, section 915.4 in anticipation of adoption, not currently adopted**
- (7) **International Residential Code 2015 Edition, section 315.1 in anticipation of adoption, not currently adopted**