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TECHNICAL BULLETIN

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Source Document: **19 NYCRR 1220 - Residential Code of New York State (RCNYS)**
 19 NYCRR 1225 - Fire Code of New York State (FCNYS)
 19 NYCRR 1226 - Property Maintenance Code of New York State (PMCNYS)

Topic: **Requirements for the Installation of Smoke Alarms in Existing Residential Occupancies**

What are the occupancy classifications of existing buildings which are required to have smoke alarms installed and what are the requirements for the installation of such smoke alarms?

The *Residential Code of New York State* (RCNYS) is applicable to detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress.

The RCNYS is applicable to **existing** one- and two-family detached dwellings not more than three stories in height. One- and two-family dwellings which are more than three stories are classified as R-3 occupancies in the *Building Code of New York State* (BCNYS). Note that there is no area limitation for buildings regulated under the RCNYS.

RCNYS section 321.2, entitled "Townhouses", further defines these dwelling units as follows: each townhouse shall be considered a separate building and shall be separated by two fire-resistance-rated wall assemblies not less than a 1-hour fire-resistance rating with exposure from both sides (meeting the requirements of section 302 for exterior walls and independent of each other) or a common 2-hour fire-resistance-rated wall (if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall). The RCNYS is applicable to only those townhouses which are side by side and have the above referenced walls between each unit.

The RCNYS is not applicable to those townhouses that were regulated as one- and two-family dwellings in accordance with section 701.3(e) of 9 NYCRR (previous Uniform Code provisions) and having walls meeting the requirements of sections 738.8(b) & (c) of 9 NYCRR, which were the construction requirements for party walls, whether they are side by side or one over the other. These buildings are still classified as one- and two-family dwellings, however they are R-3 occupancies in the BCNYS, because they are not detached as required by the RCNYS. (Unless each unit which is side by side is separated by a two-hour fire-resistance wall and including those units which are each separated by party walls at interior lot lines.)

RCNYS section 317.1.1 requires single - and multiple-station smoke alarms to be located as follows:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a dwelling unit, including basements and cellars 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.

These smoke alarms are required by RCNYS section 317.1.1 when interior alterations, repairs, or additions that require a permit occur (including the addition of one or more sleeping rooms added or created) in existing one- and

two-family dwellings and townhouses. Stated another way, when interior alterations, **OR** repairs, **OR** additions **OR** conversions occur, **AND** they (any one of them) require a permit, the individual dwelling unit shall be provided with smoke alarms located as required for new dwellings. The term “addition” is defined as an extension or increase in floor area or height of a building or structure. The term “structure” is defined as that which is built or constructed, or a portion thereof. The term “floor area” is defined as the actual occupied area, not including unoccupied accessory areas or thicknesses of walls. The term “occupied space” is defined as the total area of all buildings or structures on any lot or parcel of ground projected on a horizontal plane, excluding permitted projections as allowed by this code. Therefore, the addition of an exterior deck or balcony, when a permit is required, requires the smoke detectors to be installed in accordance with RCNYS section 317.1.

The exception to section R317.1.1 states that smoke alarms 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, unless there is an attic, crawl space or basement available which could provide access. A basement may be capable of providing access to the first floor and an attic may provide access to the top floor from above, however there is no requirement to remove the wallboard from the walls or ceiling in order to fish the necessary wires.

Additionally, the *Fire Code of New York State* (FCNYS) is applicable to buildings classified under the RCNYS and BCNYS. With respect to these existing dwellings, the requirements for installation of smoke alarms are found in section 907.3, entitled “Where required in **existing** buildings and structures”. This section states that fire alarm systems and smoke alarms shall be installed in existing buildings in accordance with section 907.3.1 and section 907.3.2. Section 907.3.2, entitled “where required - retroactive in existing buildings and structures”, requires that smoke alarms shall be provided or installed in existing buildings and structures in accordance with section 907.3.2.1 and section 907.3.2.2. Section 907.3.2.1.3, is applicable to Group R-3, **townhouses and one-and two-family dwellings**. The requirement is that at least one single-station smoke alarm shall be installed on or near the ceiling in each dwelling unit, in conformity with section 907.3.2.2 and an affidavit shall be submitted by the grantor of such dwelling at the time of conveyance, indicating that such smoke alarm has been installed and is operable. This is the same language that existed in section 1193.2 of 9 NYCRR prior to January 1, 2003, thus these smoke alarms should already be installed in all existing buildings regulated by the RCNYS and all R-3 occupancy dwellings regulated by the BCNYS.

Section 704.2 of the *Property Maintenance Code of New York State*, requires single- or multiple-station smoke alarms in **all** existing buildings of Groups R-2, R-3, and R-4 occupancies at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a dwelling unit, including basements and cellars 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.

Effective July 25, 1995, section 721 of 9 NYCRR required smoke alarms in these locations, hardwired & interconnected in all newly constructed one- and two-family dwellings and townhouses regulated as one- and two-family dwellings.

PMCNYS section 704.3 requires the power source to be the building wiring, and that the smoke alarms shall have battery backup. This section has an exception which allows battery operated smoke alarms, which are not required to be interconnected, in buildings where there is **no construction, in existing areas undergoing alteration or repairs** that do not result in the removal of interior wall or ceiling finishes, or there is no commercial power source, unless there is an attic or crawl space/basement which **could provide access** for building wiring, without removing interior finishes.

As stated above for the RCNYS section, many buildings with attics, crawl spaces, or basements are inaccessible because of the application of interior finishes or lack of access hatches.

PMCNYS section 704.4, requires interconnection of all individual required smoke alarms, unless there are no

alterations, repairs or construction of any kind. This section also provides the same exception, as above. Thus, smoke alarms are required and may be battery operated in buildings where there is no construction. If there is alteration or repair work going on and it does not result in the removal of interior finishes, the required smoke alarms may be battery operated. However, if alteration or repair work has commenced and the attic or crawl space or basement can provide access (thus avoiding the removal of interior finishes), the required smoke alarms are to be electric with battery backup & interconnected.

Existing permanent multiple dwellings, existing transient multiple dwellings, and Residential Care/Assisted Living Facilities are regulated by the BCNYS. Section 310.1, entitled "Residential Group R" states that these dwellings shall be residential occupancies and shall include the following:

R-1 Residential occupancies where the occupants are primarily transient in nature including:

Boarding houses (transient); Hotels (transient); & Motels (transient)

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses; Boarding houses (not transient); Convents; Dormitories; Fraternities and sororities; Monasteries; Vacation timeshare properties; Hotels (non transient); & Motels (non transient). Note that many of these buildings were previously classified as transient under 9 NYCRR. Senior Citizen apartment buildings, classified as B3 occupancies in 9 NYCRR are R-2 occupancies in the new code, unless they are regulated by DOH.

R-4 Residential occupancies shall include buildings arranged for occupancy as Residential Care/Assisted Living Facilities including more than five but not more than 16 occupants, excluding staff.

The above referenced sections of the PMCNYS (704.2, .3 & .4) are applicable in the same manner for R-2 and R-4 occupancies. PMCNYS section 704.2 also refers to requirements in the *Fire Code of New York State* for other occupancies.

Effective July 25, 1995, section 742.6(a) of 9 NYCRR required smoke alarms in these locations, hardwired & interconnected in the dwelling units or sleeping rooms of all newly constructed permanent multiple dwellings (B1), transient multiple dwellings (B2), senior citizen multiple dwellings (B3) and Adult Residential Care Facilities (B4).

As with the Group R-3, townhouses and one- and two-family dwellings discussed above, FCNYS section 907.3.2.1.3 requires smoke alarms retroactively in **R-2** occupancies. The requirement is that at least one single-station smoke alarm shall be installed on or near the ceiling in each dwelling unit or sleeping room, in conformance with section 907.3.2.2. Where the building is owned as a condominium or a cooperative, an affidavit shall be submitted by the grantor of such dwelling or apartment at the time of conveyance, indicating that such smoke alarm has been installed and is operable. This is the same language which existed in section 1193.3 of 9 NYCRR prior to January 1, 2003, thus these smoke alarms should already be installed in all existing buildings regulated as such by the BCNYS.

FCNYS section 907.3.2.1.1 requires portable smoke alarms of both audible and visual design in all buildings of R-1 occupancy. There shall be one operational for each building and a number equal to 3 % of the sleeping rooms. Additionally, when there is a required fire alarm system, the visual alarms shall be wired into that system.

Effective July 25, 1995, section 742.6(b) 9 NYCRR required the same number of such portable audible and visual smoke alarms in new transient multiple dwellings (B2). Additionally, section 1193.4 of 9 NYCRR had required the same number of such portable audible and visual smoke alarms in **existing** transient multiple dwellings since December 2, 1987.

*Ronald E. Piester, R.A., Director
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Attached Table:

Smoke Alarm Requirements
for existing dwellings, including those with alterations or repairs
under the new Codes of New York State

Smoke Alarm Requirements

for existing dwellings, including those with alterations or repairs
under the Codes of New York State

Occupancy	Code	When & Where	Hardwired & Interconnected
RCNYS one- & two-family dwellings; townhouses; side by side, with two hour separation ; incl. party walls on interior lot lines	RCNYS 317.1.1	when permit required: outside all sleeping areas, all sleeping rooms, all floors	battery: additions, alterations or repairs: if not removing interior finishes unless access from attic, crawl space, or basement
	FCNYS 907.3.2.1.3	ONE & affidavit on sale	battery
R-3 one- & two-family dwellings (not RCNYS); townhouses in pairs: side by side with less than two hour separation; & one over the other	PMCNYS 704.2, .3, .4	ALL units outside all sleeping areas, all sleeping rooms, all floors	battery: no construction & alterations or repairs: if not removing interior finishes unless access from attic, crawl space, or basement
	FCNYS 907.3.2.1.3	ONE all units & affidavit on sale	battery
R-2 permanent multiple dwellings	PMCNYS 704.2, .3, .4	ALL units outside all sleeping areas, all sleeping rooms, all floors	battery: no construction & alterations or repairs: if not removing interior finishes unless access from attic, crawl space, or basement
	FCNYS 907.3.2.1.3	ONE all units & affidavit on sale of condominium or cooperative unit	battery
R-4 Residential Care/ Assisted Living Facilities	PMCNYS 704.2, .3, .4	ALL units outside all sleeping areas, all sleeping rooms, all floors	battery: no construction & alterations or repairs: if not removing interior finishes unless access from attic, crawl space, or basement
R-1 transient multiple dwellings	FCNYC 907.3.2.1.1	portable devices, both audible & visual	one operational per building & 3% of number of sleeping units
		fire alarm system required:	audible & visual alarms wired into system