



Along with this, the height increase section of the 1996 BOCA National Building Code was also maintained to address the concerns of the fire service. The height of a building would be increased one story, up to three stories or 55 feet, when a NFPA 13 or 13R system was installed.

When installing a NFPA 13 or 13R system instead of a 13D or P2904 system, there are additional components that do not provide any extra benefit for the evacuation of the occupants. The requirement to install NFPA 13 or 13R systems, with the associated higher costs, may actually discourage the installation of residential sprinkler systems.

The NFPA 13R and the 13D/P2904 systems provide essentially the same level of life safety protection for the occupants and some property protection of the building. None of the combustibles concealed spaces is required to be protected unless it contains gas-fired equipment, then only the area above the equipment requires sprinkler protection. While sprinklers are not required in garages of a dwelling with a NFPA 13D system, they are required in garages when using a NFPA 13R system. However, the same residential-style sprinkler heads that were used inside the dwelling can be used in the garage. With the installation of NFPA 13D systems in Phoenix, Arizona and Prince Georges County, Maryland, the protection of life and property has been proven for over 20 years. There have been no deaths from accidental fires in dwellings that have had 13D systems installed, and, in many cases, the sprinklers have extinguished the fires before the fire department has arrived.

The following is a list of differences between a NFPA 13 or 13R vs. a 13D/P2904 system:

1. Fire Dept Connection (FDC) vs No FDC for 13D or P2904
2. Combined Water Supply Connection may be used (verify with municipal water company; some may require a separate supply)
3. Maximum of a Four Sprinkler Head Design for NFPA 13; up to Four Heads for 13R vs Two Head Design for a NFPA 13D or P2904
4. 30 Minute Water Supply vs 10 Minute Supply for a NFPA 13D or P2904
5. Monitored vs No Monitoring for a NFPA 13D or P2904

*NOTE: Installers of fire sprinklers need Division of Fire Safety certification.*

The unamended 2009 IRC requires the installation of a NFPA 13D or P2904 fire sprinkler system in a dwelling that is limited to three stories in height with unlimited area. The one- and two-family dwelling subcode of the UCC requires a monitored NFPA 13 or 13R system for a new dwelling or for an increase in height of an existing Type VB dwelling above 35 feet. The UCC maintained the sprinkler system requirements of the 1996 BOCA National Building Code with the adoption of the IRC/2006 and IRC/2009.

The Department recommends that a variation be granted to allow construction in accordance with the unamended IRC/2009. Under the IRC/2009, a NFPA 13D or P2904 sprinkler system is required to be installed and the dwelling is limited to a maximum height of three stories and may be unlimited in area. The Department will be proposing modifications to N.J.A.C. 5:23-3.21 to address this issue.

BULLETIN NO.

14-1

BULLETIN