



Land Development Services

# Technical Bulletin

**Subject: Contractor/building owner responsible for residential sprinkler system.**

**Date: 04/11/24**

**No.: 24-04**

Summary: The purpose of this technical bulletin is to clarify the current requirements for contractors and/or building owners for backflow devices in residential sprinkler systems designed in accordance with NFPA 13D system.

Effective Date: Immediately

Background: Virginia Residential Code requires water-based fire sprinkler systems designed under NFPA 13D. The code further states that a stand-alone sprinkler system shall be separate and independent from the water distribution system. This indicates that stand-alone designs are not intended to be directly connected to the water distribution system.

Policy: The following policy applies to all residential fire sprinkler systems designed under NFPA-13D.

- Residential water-based fire sprinkler systems designed under NFPA 13D that use a “multipurpose” design or meeting the exceptions provide in accordance with Virginia Residential Code (VRC) 2021 Section P2904 shall not require backflow prevention.
- Residential water-based fire sprinkler systems that are designed as “stand-alone” systems under NFPA 13D and are connected to the domestic water distribution system shall be required to be protected against backflow with a testable double-check backflow prevention assembly meeting the standard of ASSE 1015 or a reduced pressure principle backflow prevention assembly meeting the standard of ASSE 1013 (VRC 2021 Section P2902.5.4).
- Residential fire sprinkler systems containing chemical additives such as anti-freeze shall be protected against backflow with a testable reduced pressure principal backflow prevention assembly meeting the standard of ASSE 1013 (VRC 2021 Section P2902.5.4.1).

Residential fire sprinkler design plans submitted to the Office of the Fire Marshal indicating an NFPA 13D “stand-Alone” design requiring backflow device shall include the following:

- A manufacturers cut sheet for backflow prevention assembly to be installed
- An identifiable label on the riser diagram showing the location of the backflow prevention assembly

If you have any questions, please contact Jay Riat. in the Building Division and Inspections Division at Jay.Riat@fairfaxcounty.gov or 703-324-1720, TTY 711.

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