COLORADO SPRINGS FIRE DEPARTMENT
Division of the Fire Marshal
Administrative Ruling

Number:	**2017-5R**		
Subject:	**Acceptance Testing Residential Fire Sprinkler Systems**		
Reference:	**NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2019** **NFPA 13R Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies, 2019**		
Effective Date:	**10/13/2017**	**Issued By:**	**Doreen Withee, Fire Protection Engineer**
Revision Date:	**05/17/2019**	**Revised By:**	**Doreen Withee, Fire Protection Engineer**
Approval Date:	**10/30/2019**	**Approved By:**	**Brett T. Lacey, Fire Marshal**

PURPOSE: To provide options to an archaic acceptance testing method unsupported by installation standards.

SCOPE: This policy applies to new residential fire sprinkler systems designed and installed in accordance with NFPA 13D and 13R.

DESCRIPTION OF ISSUES:

There are three common issues:

1. Fire authorities around the country have required a bucket test on 13D systems to prove the hydraulics of the systems. However, the NFPA 13D maintenance committee does not consider the bucket test to be necessary, having soundly rejected it several times in the past. Per the committee responsible for the maintenance of 13D, "the system water flow can…be adequately tested using the test and drain connection…"

2. Any issues that were found during a bucket test, involved the underground piping and/or closed valves, both of which can be discovered during routine inspections involving test connections and underground flow tests.

3. Bucket tests can be problematic to conduct as they are often done when the structure is nearly finished, in addition to increased equipment and personnel costs as well. All of these can be alleviated by conducting an underground inspection, based on the requirements of NFPA 13 and NFPA 24.

DECISION: CSFD offers two options for final acceptance testing of residential fire sprinkler systems:

1. Perform a bucket test, as has been past practice.
2. Complete the following test procedures as commonly seen on commercial systems:
    a. A main drain test.
    b. An underground flush.
    c. An underground hydrostatic test per installation standards.
    d. Providing the completed Contractor's Material and Test Certificate.