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| TECHNICAL BULLETIN CITY OF RALEIGH, N.C. www.raleighnc.gov | |  | | | OFFICE OF THE FIRE MARSHAL | | |
| Subject | | Bulletin # | SECTION | PAGE | EFFECTIVE DATE | | |
| Pressure Regulating Valves | | TB-9 | NFPA 13, 25 | 1 of 2 | 9/3/2006 | | |
| | | | PREPARED BY | | | Revision Date | |
| | | | Office of the Fire Marshal | | | 06/01/2019 | |

1.0 **Purpose**

This policy is to ensure that during an emergency the fire suppression system will have adequate pressure and flow available to produce effective sprinkler patterns within the structure. Pressure Regulating Valves should only be used where the static pressure exceeds 175 psi.

2.0 **Organization(s) Affected**

Raleigh Fire Department (Office of Fire Marshal), engineers and fire sprinkler contractors designing and installing standpipe systems, and fire sprinkler maintenance and inspection contractors.

3.0 **References**

NFPA 13, 25, and RFD Fire ground operations guidelines.

5.0 **Requirements**

Pressure Regulating Valves for sprinkler systems shall be set while in a flowing condition to provide the sprinkler demand plus 10 psi (minimum). Factory preset valves shall be field tested and adjusted as necessary and must meet the system demand plus 10 psi.

Systems shall be provided with a permanent test connection downstream of each pressure regulating valve to accommodate full flow testing. Systems shall be provided with an express drain and proper hose connections with plug near each pressure regulating valve to facilitate flow testing as required for construction inspections and periodic testing per NFPA 25. Express drains shall discharge in a safe area that can accommodate the maximum system demand.

Pressure Regulating Valves shall be provided with pressure gauges and gauge valves both upstream and downstream of each valve.

Pressure relief valves (non adjustable) shall be installed downstream of all pressure regulating valves.

Contractor shall provide all testing apparatus, adapters, and fire hose required to flow test the pressure regulating valves installed.

All Testing of all Pressure Regulating Valves shall be witnessed by Office of the Fire Marshal. This includes the certification testing for new valves installed and the NFPA 25 periodic flow testing.

6.0 **Goal:**

The goal of this policy is to ensure reliable operation of pressure regulating valves installed on fire protection systems. Pressure regulating valves that are not functioning properly can lead to a failure of the fire suppression system allowing loss of life and increased property damage in the event of a fire.

Pressure regulating valves should not be used where the static pressure does not exceed 175 psi.