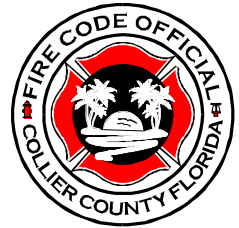


Collier County Fire Prevention and Protection Code POLICY AND PROCEDURE MANUAL



ARTICLE NUMBER: FSK 09-1

EFFECTIVE DATE: 1/1/2009

SUBJECT: Extrapolated Fire Flow

OBJECTIVE: To provide a minimum safety margin for fire sprinkler installations

BACKGROUND:

The 2002 edition of NFPA 13 Section 15.2.1.2 requires an adjustment to the water flow test to account for numerous conditions including seasonal fluctuations and future demand on the water system. In an effort to install systems as cheaply as possible, designers proposed systems with very little safety margin and were reluctant to design systems with a sufficient safety margin without us setting standard.

POLICY/PROCEDURE:

All fire sprinkler systems shall be designed with using the hydraulic method. System design shall be based on a current flow test (not more than 6 months old). For flow tests with a static pressure 55 PSI or more, the test shall be extrapolated to a seasonal static of 50 PSI. The formula is as follows:

$$\begin{aligned} X \text{ Factor} &= \text{Seasonal Static} / \text{Measured Static} \\ \text{Design Residual Pressure} &= (\text{residual Pressure}) \times (X \text{ Factor}) \\ \text{Design Pitot PSI} &= (\text{Pitot Pressure}) \times (X \text{ Factor}) \end{aligned}$$

For flow tests with a static of less than 55PSI the un-extrapolated flow test shall be used; however, in this case a minimum safety factor of 5 PSI above the system demand shall be provided.

CODE REFERENCES:

NFPA 13 Section 15.2.1.2 2002 Edition

ATTACHMENTS:

None.

DISTRIBUTION: Big Corkscrew Island Fire District; East Naples Fire District; Golden Gate Fire District; Immokalee Fire District; Isle of Capri Fire District; North Naples Fire District; Ochopee Fire District; City of Marco Island Fire Department; Building Director, Collier County Community Development; Chief Inspectors, Collier County Community Development; Collier County Community Development Records; Collier Building Industry Association (CBIA); Subscribers