



DATE:	December 15, 2006 (REVISED: December 7, 2009)
TO:	All Fire Protection Contractors Conducting Work in the City of Fort Worth
FROM:	Fort Worth Fire Marshal
RE:	Water Supply Information Required for Design of Fire Protection Systems

Please Note: For Fire Hydrant Flow Test information, please contact the Fort Worth Water Department Field Operations Division at 817-392-8296.

Please be advised that as of March 1, 2007, the Fort Worth Fire Marshal requires that all fire protection plan submittals be accompanied by a hard copy of the waterflow (fire hydrant flow) test report from the Fort Worth Water Department. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well. The Fire Sprinkler Contractor must then design the applicable fire sprinkler system, based on the minimum water supply available, in accordance with the requirements of NFPA 13, as referenced below. Additionally, the contractor must verify the design will accommodate the maximum water supply, as well, to avoid excessive pressures on the sprinkler system, as per NFPA 13. Note that both the Fort Worth Fire Code and the Texas Administrative Code require compliance with NFPA 13.

The adopted 2002 edition of NFPA 13 states:

“15.2.1.2 The volume and pressure of a public water supply shall be determined from waterflow test data. An adjustment to the waterflow test data to account for daily and seasonal fluctuations, possible interruption by flood or ice conditions, large simultaneous industrial use, future demand on the water supply system, or any other condition that could affect the water supply shall be made as appropriate.”

Note that the requirement to design the sprinkler system to account for fluctuations in the water supply is a current requirement of NFPA 13. The only change to the contractor is that the submitted plans must include a copy of the waterflow test from the water department to ensure compliance with this requirement.

Section 508.4.1 of the Fort Worth Fire Code has been amended to reflect this requirement as follows:

“508.4.1 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report from the Fort Worth Water Department, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard.”

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Please also note that the 5 psi safety factor required by Section 903.3.5 of the Fort Worth Fire Code still applies to the fire protection system design.

Should you have any questions concerning this matter after reviewing the above information, please contact the Fort Worth Bureau of Fire Prevention at 817-392-6830.

Thank you for your assistance in this matter in the interest of life safety.

Submitted by:

Bob D. Morgan, PE
Senior Fire Protection Engineer
FORT WORTH FIRE DEPARTMENT

cc: Landon Stallings, Fire Marshal
FORT WORTH FIRE DEPARTMENT

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FIRE DEPARTMENT – BUREAU OF FIRE PREVENTION

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