



**FIRE RESCUE DEPARTMENT  
OFFICE OF THE FIRE MARSHAL**

109 E. Church Street, Lower Level  
Orlando, FL 32801-3319  
(407) 836-0070 Fax (407) 836-8330

December 12, 2002

To All Design Professionals and Fire Sprinkler Contractors.

This document is intended to assist you in successfully providing the necessary information mandated by Chapter 61G15-32, Florida Administrative Code, for the fire protection-engineering documents required during the Orange County building permit submittal process.

It is imperative that during the general construction permits process, the Florida Registered Professional Engineer who develops the fire protection system design criteria provide the overall requirements outlined in 61G15-32.004, Florida Administrative Code. Fire Protection System Engineering Documents that are submitted during the building construction process that do not provide the minimum information, will not be approved.

During the fire department fire protection system permit process, Florida Fire Sprinkler Contractor's submittals, which deviate from the engineering minimum design parameters called for in 61G15-32.004(a through j) F.A.C., shall be considered material deviations and shall require supplemental engineering approval and documentation prior to approval.

**61G15-32.004 Design of Water Based Fire Protection Systems.**

(1) Water Based Fire Protection Systems include, but are not limited to, automatic sprinkler systems of wet, dry, fine water spray (mist), manual, and deluge valve controlled types, pumping systems, standpipes, fire water mains and dedicated fire protection water sources.

(2) To ensure minimum design quality in Fire Protection System Engineering Documents, said documents shall include as a minimum the following information when applicable:

(a) The Point of Service for the fire protection water supply as defined by 633.021(17) F.S.

(b) Applicable NFPA standard to be applied, or in the case where no such standard exists, the engineering study, judgments, and/or performance based analysis and conclusions.

(c) Classification of hazard occupancy for each room or area.

(d) Design approach, which includes system type, densities, device temperature rating, and spacing for each separate hazard occupancy.

(e) Characteristics of water supply to be used, such as main size and location, whether it is dead-end or circulating; and if dead-end, the distance to the nearest circulating main, as well as its minimum duration and reliability for the most hydraulically demanding design area.

(f) When private or public water supplies are used, the flow test data, including date and time of test, who conducted test or supplied information, test elevation, static gauge pressure at no flow, flow rate with residual gauge pressure, hydrant butt coefficient, and location of test in relation to the hydraulic point of service.

(g) Valving and alarm requirements to minimize potential for impairments and unrecognized flow of water.

(h) Microbial Induced Corrosion (MIC). The Engineer of Record shall make reasonable efforts to identify water supplies that could lead to Microbial Induced Corrosion (MIC). Such efforts may consist of discussions with the local water purveyor and/or fire official, familiarity with conditions in the local area, or laboratory testing of water supplies. When conditions are found that may result in MIC contamination of the fire protection piping, the engineer shall design corrective measures.

(i) Backflow prevention and metering specifications and details to meet local water purveyor requirements including maximum allowable pressure drop.

(j) Quality and performance specifications of all yard and interior fire protection components.

(3) Contractor submittals which deviate from the above minimum design parameters shall be considered material deviations and require supplemental engineering approval and documentation.

(4) In the event the Engineer of Record provides more information and direction than is established above, he or she shall be held responsible for the technical accuracy of the work in accordance with applicable codes, standards, and sound engineering principles.

If you have any questions on 61G15.32.004 F.A.C. requirements, please feel free to contact our plans review office.

Thank you.