

## **FIRE SPRINKLER SYSTEM DESIGN CRITERIA (A-J)**

### **61G15-32.004 Common Requirements to All Fire Protection Engineering Documents.**

- (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 Section 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 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 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.