

# FACILITIES STANDARD

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= NAME : Fire Protection Service  
NUMBER : 15510

ORIGINAL DATE : 01-05-98  
REVISION DATE : 12-22-98

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## PURPOSE:

1. The general purpose of each Facilities Standard is to provide minimal criteria for construction materials at University facilities regarding code compliance, warranty, approved products, execution and uniformity.
2. To protect the health and safety of patients, visitors, students, faculty and staff, in addition to protecting non-project UAB property, all construction must be in accordance with: NFPA 241 safeguarding construction, alteration and demolition operations; Standard Building Code, Chapter 33, regarding site work, demolition and construction; NFPA 101 Life Safety Code.
3. Construction safety is the responsibility of the contractor in accordance with the regulations and codes of the agency having jurisdiction, and according to the guidelines adapted by OSHA.
4. The **Fire Protection Service Facilities Standard** establishes a series of guidelines for specifying this particular item on any construction project at the University. ***This Facilities Standard is not to be regarded as a specification.***

## GENERAL:

- A. Automatic sprinkler systems shall be wet pipe systems unless all or part of the system is subject to freezing. In such case, a dry pipe system shall be installed for the portions of the system subject to freezing.
- B. Automatic sprinkler systems shall be hydraulically designed using NFPA 13 approved hydraulic calculation method.
- C. Standpipe and hose systems shall be designed and installed according to NFPA 14.

## PRODUCTS:

- A. Sprinklers: For light hazard occupancies, quick-response, 155°F rated type. Pendent, upright, sidewall, flush, recessed or concealed sprinklers shall be used as conditions dictate. For more hazardous occupancy classifications, sprinkler

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types shall be according to NFPA 13. Accepted manufacturers are Gem, Grinnell, Central, Automatic Sprinkler, or approved equal.

- B. Piping shall conform to ASTM A795 Standard Specification for galvanized, black steel pipe. Nonmetallic piping may be used in special situations only after approval from the Architect/Engineer. Nonmetallic piping can be CPVC (ASTM F442) or Polybutylene (ASTM D3309).
- C. Fittings shall conform to ANSI B16.4 Standard Specification for cast iron threaded fittings, and ASTM F438 and F439 for CPVC fittings.
- D. Pipe Joints: Threaded and Victaulic-type for steel piping, and socket for CPVC piping.
- E. Valves:
  - 1. Butterfly valves: Nibco G-1765-4 with internal tamper switch, Victaulic Series 708, or approved equal.
  - 2. Gate valves: Nibco F-607-OTS with pre-grooved stem for tamper switch mounting, Stockham G-634, or approved equal.
  - 3. Indicator Posts: Nibco NIP1A or NIP2, Stockham G-951 or G-950, or approved equal.
  - 4. Angle valves: Nibco, Stockham, or approved equal; bronze.
  - 5. Check valves: Nibco F-908-B, or approved equal.
  - 6. Fire Department valves: Nibco, Croker, or approved equal.

All valves must be UL/FM approved.

- F. Water Flow Alarms: Watts FSV-F, Potter VSR-F, Victaulic Style 736, Croker 8130 series, or approved equal.
- G. Fire Department inlet connection: Croker or approved equal.
- H. Fire Pumps: Bell & Gossett, Aurora, Grundfos, or approved equal.

### **EXECUTION:**

- A. Piping shall not be installed in floor slabs.
- B. Piping installed in solid walls shall not be permitted unless installed in a chase or casing.

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- C. Piping inside any building shall not be run in or through an air duct, clothes chute, chimney or vent, ventilating duct, dumbwaiter, or elevator shaft.
- D. Piping shall be supported at intervals recommended by manufacturer for various pipe sizes. Multiple pipes shall be hung together where possible.
- E. Piping shall be placed so as to minimize obstruction to other work.
- F. Floor control valves, water flow alarms, pressure gauges, test/drain valves, etc. shall be located in stairwell or in other approved location where all components are accessible.
- G. All automatic sprinkler systems shall be approved and certified by sprinkler contractor. The authority having jurisdiction and owner's representative shall be notified of the time and date that testing will be performed. Tests shall be witnessed by a representative of the Owner.
- H. Where sprinklers are installed in lay-in grid type ceiling, sprinklers shall be centered in two directions in ceiling tile, and piping offsets shall be provided as required. Sprinklers shall be installed so that they are flush with tile gridwork. Contractor shall replace any ceiling tiles that are noticeably damaged due to installation of sprinkler system.
- I. Sprinkler mains shall be run as high as possible, a minimum of 15" above ceiling.
- J. Repair plaster ceilings where there is a penetration.
- K. All penetrations through fire resisting assemblies shall be sealed in accordance with Standard Building Code Section 05.4 to ensure the rating of the assemblies maintained. Further, all Contractors are required to obtain fire-smoke or penetration permits prior to beginning any project that requires a penetration of fire rated or smoke rated walls.
- L. Contractor shall obtain all permits required
- M. Drains shall be routed to a location approved by the Owner.

END OF STANDARD

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