



# MOBILE FIRE - RESCUE DEPARTMENT FIRE CODE ADMINISTRATION

## Stand Pipe System Plan Review 2012 International Fire Code and NFPA 14

Date of Review \_\_\_/\_\_\_/\_\_\_\_\_ BLD201\_\_ - \_\_\_\_\_

Project Address: \_\_\_\_\_ Project Name: \_\_\_\_\_

Professional Engineer's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Contractor's Business Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Contractors Name: \_\_\_\_\_ Occupancy Type: \_\_\_\_\_

Contractor's Email Address: \_\_\_\_\_

Class I \_\_\_ Class II \_\_\_ Class III \_\_\_ Type: Dry \_\_\_ Wet \_\_\_ Combination \_\_\_

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Numbers following worksheet comments represent an NFPA code section unless otherwise specified.

**Worksheet Legend:** ✓ or OK = acceptable      N = need to provide      NA = not applicable

1. \_\_\_ Two sets of drawings are provided.
2. \_\_\_ Equipment is listed for intended use, compatible with the system, and equipment data sheets are provided.

### **Minimum Information:**

3. \_\_\_ Class of standpipe system and the type of standpipe in accordance with Code.
4. \_\_\_ Scale: a common scale is used and the plan information shall be clear and legible, .
5. \_\_\_ Plot plan showing supply piping and pipe size from the water source to the building.

6. \_\_\_\_ Equipment symbol legend and compass point.
7. \_\_\_\_ The correct standpipe class is provided for the occupancy and is in accordance with IFC
8. \_\_\_\_ Building dimensions, height, and the location of the fire department connection.

### **Pipe:**

9. \_\_\_\_ The material standard and pipe wall thickness (schedule) for steel pipe assembled using welded or rolled groove method shall comply with the requirements in Section 4.2.3. Steel pipe assembled using threading shall comply with the material standard and pipe wall thickness requirements .
10. \_\_\_\_ Piping shall be supported and anchored in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems,

### **Valves:**

11. \_\_\_\_ Valve locations are detailed and data sheets are provided, .
12. \_\_\_\_ The type of indicating or non-indicating shall comply with the design and operational requirements.
13. \_\_\_\_ Connection to the water supply is equipped with the appropriate valve(s)  
.
14. \_\_\_\_ Gate valves are provided to permit the isolation of standpipes without interrupting the supply to other standpipes from the same water source, .
15. \_\_\_\_ Combined systems: connection from standpipe to sprinkler system has an individual control valve and check valve detailed,
16. \_\_\_\_ Electric supervision of the valves for water supply, isolation control, and valves in feed mains is provided in accordance with IFC 905.
17. \_\_\_\_ All valves are marked or otherwise identified to indicate the portion of the system they control.

### **Hose and Cabinets:**

18. \_\_\_\_ Specification sheets for hose cabinets, racks and hoses are provided, .
19. \_\_\_\_ Hose for Class II and III systems is listed and complies with the diameter and length requirements of Section 4..
20. \_\_\_\_ Nozzles for Class II service are listed,

21. \_\_\_\_\_ Hose valves and connections comply with the requirements in Section 4
22. \_\_\_\_\_ Hose cabinets are provided with signage and operating instructions,
23. \_\_\_\_\_ Cabinets with glass shall have a glass breaking device secured to the cabinet, which is detailed or noted on the plans, .
24. \_\_\_\_\_ When a hose cabinet penetrates a fire-resistive assembly, the assembly shall be protected in accordance with IBC requirements for membrane penetrations,

### **Hose Connections:**

25. \_\_\_\_\_ Approved pressure regulating device is provided when the residual pressure exceeds the pressure specified in 7. detail and specification sheets are provided.
26. \_\_\_\_\_ Hose connections and hose stations are unobstructed and shall be located above the floor .
27. \_\_\_\_\_ The Class I standpipe is detailed showing outlet locations in compliance with IFC
28. \_\_\_\_\_ Each Class I standpipe has a roof outlet or an outlet at the highest landing of stairway that has roof access for a roof with less than a 4/12 slope, .
29. \_\_\_\_\_ The Class II standpipe is detailed showing outlet locations .
30. \_\_\_\_\_ Class III standpipe outlets are located the same as Class I and II outlets, including the roof outlets, .
31. \_\_\_\_\_ When required, Class II and III standpipe systems are auto- or semiautomatic-wet systems as specified in IFC .
32. \_\_\_\_\_ An extra outlet is detailed and provided for the most hydraulically remote standpipe for testing purposes when the roof has less than a 4/12 slope,

### **Fire Department Connection (FDC):**

33. \_\_\_\_\_ Each FDC has swivel fittings .
34. \_\_\_\_\_ Each fire department hose connection is provided with signage
35. \_\_\_\_\_ If the FDC also supplies the sprinkler system then a sign indicating the pressure and demand are detailed, .  
system

36. \_\_\_\_\_ When a portion of a building is served by an FDC, a sign is detailed to specify which part of the building is being served, .
37. \_\_\_\_\_ Each FDC is provided with a listed check valve,
38. \_\_\_\_\_ FDC connections to a specific type of system are located and detailed relative to the control valves .
39. \_\_\_\_\_ For freezing environments, an automatic drip valve is detailed between the check valve and the FDC, .
40. \_\_\_\_\_ FDC signage detail complies with .
41. \_\_\_\_\_ The FDC height above finish grade is detailed and complies with IFC. FDC location is in accordance with fire department policy and 36 inch minimum clearance to the sides and to the front of FDCs is required FDC's shall be located 78 inches along grade. FDCs subject to vehicle damage require protection in accordance with IFC.
42. \_\_\_\_\_ The number of FDCs required for Class I or III standpipe system shall comply with IFC
43. \_\_\_\_\_ Each high-rise building zone shall have a minimum of two remotely located FDCs

### **Protection:**

44. \_\_\_\_\_ Class I and III standpipes and lateral piping supplied from the standpipes are located in stairways with or are protected in accordance with 6.1., IFC 905, and 905..
45. \_\_\_\_\_ Class I and III lateral piping to hose connections need not be protected in sprinkled buildings, , IFC 905
46. \_\_\_\_\_ Class II standpipes and risers need not be protected, IFC.
47. \_\_\_\_\_ Piping exposed to corrosive conditions shall utilize corrosion-resistant materials or be provided a protective coating. If protective coating is utilized, provide the manufacturer's data sheet and application instructions, .
48. \_\_\_\_\_ Dry standpipes are not concealed unless monitored .
49. \_\_\_\_\_ If piping is subject to freezing, it is detailed how water-filled piping will be protected to maintain the water temperature above 40 degrees f.
50. \_\_\_\_\_ If pipe must be installed under the building, details are provided to show method of protecting the pipe in accordance with NFPA 24.

51. Earthquake bracing is provided and detailed in accordance with NFPA 13.

### **Interconnection:**

52. \_\_\_\_\_ Interconnection between two or more standpipes in the same building is detailed,

52. \_\_\_\_\_ Interconnection at the top of the building is detailed when water supply tanks are at the top of the building and check valves are located and detailed .

### **Design Criteria:**

54. \_\_\_\_\_ Each FDC for Class I and II standpipes is designed to provide the system demand, calculations are provided, .

55. \_\_\_\_\_ When automatic or semiautomatic water supply is required by 5. and IFC 905 the standpipe system demand shall comply with 7.7 and calculations are provided.

56. \_\_\_\_\_ Combination automatic sprinkler and standpipe systems shall be calculated in accordance with the requirements in Section 7.10.

### **Hydraulic Demand, :**

57. \_\_\_\_\_ Class I and III standpipes: Calculations based on the criteria in Section 7.10. shall be hydraulically calculated to verify the minimum flow rates specified in Sections 7.10. are satisfied.

58. \_\_\_\_\_ Class II standpipes: Calculations demonstrate the hydraulically most remote hose connection is supplied with the minimum water flow and pressure specified in 7.10.

59. \_\_\_\_\_ Maximum flow rate for each hose connection is in accordance with 7.10..

60. \_\_\_\_\_ Pipe schedule standpipe system complies with Table 7.8. Pipe schedule designs are limited to buildings not classified as a high-rise and equipped with wet standpipe systems,

61. \_\_\_\_\_ A drain risers are detailed is provided in accordance with 7.11 for a standpipe equipped with pressure-regulating devices .

62. \_\_\_\_\_ The drain riser detail illustrates a tee as required in Section 7.11..

63. \_\_\_\_\_ A drain valve and piping are detailed in accordance with 7.11.

64. \_\_\_\_\_ At least a 30 minute water supply is available for any class system, .

65.\_\_\_\_\_ Standpipe zoning is designed, detailed, and complies with 7..

**Additional Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Review Date:** \_\_\_\_\_

**Fire Code Administration Staff Captain**