



MOBILE FIRE - RESCUE DEPARTMENT FIRE CODE ADMINISTRATION

Sprinkler System NFPA 13 Acceptance Inspection

Facility Name: _____

Facility Address: _____

Building Code Permit Number (if applicable) BLD- 201___ - _____

Reference numbers following checklist statements represent an NFPA code section unless otherwise specified.

1. ____ Approved drawing and piping certification documents are on-site.
2. ____ Underground supply testing and flushing is witnessed and underground piping certification is provided. Flushing requirements shall be 880 gpm for 6 in., 1,560 gpm for 8 in., 2,440 gpm for 10 in., 3,520 for 12 in.
3. ____ Hydrostatic test: wet system, 200 psi for 2 hours and it should include the Fire Department Connection (FDC) piping.
4. ____ Hydrostatic test: dry and double interlock system: 200 psi for 2 hours and a 40 psi air leak test for 24 hours with less than 1.5 psi loss, 24.
5. ____ Double back flow prevention device is installed and forward flow tested, 24.
6. ____ Systems subject to pressures greater than 150 psi shall be hydrostatically tested at 50 psi above system working pressure, 24..
7. ____ Operational test of the dry-pipe valve is performed and the quick opening device (500+ gallon systems) is tested, 750+ gallon system must trip within the time provided in Table 7.2. 24.2.

8. ____ PRVs are tested at maximum and normal inlet pressures or as specified by the manufacturer, the supply pressure is recorded on the certificate, a relief valve is on the discharge side and gauges on each side of the valve, 24.2.

Riser Room

9. ____ The main drain is routed to the exterior with a turned down elbow or an inside drain capable of handling the water flow. A flow test is performed. The main drain pipe is $\frac{3}{4}$ in. or greater for a riser up to 2 in., $1\frac{1}{4}$ in. or greater for a riser $2\frac{1}{2}$ in. to $3\frac{1}{2}$ in., 2 in. for a riser 4 in. or greater, 8.16. 24.2.
10. ____ Water control valves and flow switches are monitored and tested for all occupancies with 20 or more sprinklers, 903, 24.2.
11. ____ Paddle-type water flow is not allowed for dry, pre-action or deluge systems.
12. ____ 24-hour monitoring service agency received signals.
13. ____ **Water flow alarm is tested with power off to ensure battery back up,** And initiates an alarm within 5 minutes, located above the FDC, and it is properly signed, 24.
14. ____ Water supply valves are indicating type and supervised by one of 4 means, 8.16.
15. ____ High-rise: each floor system shall have a separate water flow device with a test connection and be connected to the fire alarm system, 8.16. and 8.17
16. ____ Permanent system identification signs for each control valve and what portion of the building each valve serves are provided, 6.7..
17. ____ Permanent label with hydraulic calculations is attached to the riser, 24..
18. ____ Riser is supported by hanger or attachment, for multistory at the lowest level, each alternate level, above and below offsets, and at the top, 9.
19. ____ Gauges are above and below riser check valve, 7.1.

Fire Department Connection (FDC)

20. ____ FDC lock-capped and permanently signed with system type, PSI required, and area or building served, 8.17.

21. ____ FDC has check valve and drip valve, 8.17.
22. ____ FDC for wet single riser system connects to the system side, 8.17.
23. ____ FDC for wet multi-riser system connects after the main system shutoff valve, 8.17.
24. ____ FDC for dry system connects between the indicating and dry-pipe valves, 8.17. Ensure that the minimum clearance to the sides, front. And, height are provided in accordance with IFC 912.
25. ____ FDC is a minimum 4 in. pipe unless hydraulically calculated but not less than the riser dimension; 18 in. to 48 in. above grade, and properly supported, 8.17..

Sprinklers

26. ____ Extra sprinklers: there are no less than 6, some of each type: 6 per 300, 12 per 300 to 1000, and 24 per 1000+ and a wrench are provided, .
27. ____ Sprinkler head and wrench location are the same as the plans.
28. ____ Sprinklers shall be a minimum of 4 in. from the wall and be properly spaced,
29. ____ Sprinkler heads have a guard if subject to damage.
30. ____ Sprinkler heads are not painted or covered.
31. ____ ESFR deflectors are placed in accordance with .
32. ____ EFSR sprinklers are at least 1 ft. horizontally from the bottom edge of bar joist or open truss and at least 36 in. above the top of the storage level,
33. ____ Proper type and temperature sprinklers are used and match plans.
34. ____ Escutcheon plates are installed.

Pipe: Hangers, Seismic, and Penetrations

35. ____ Piping layout and size are the same as the plans.
36. ____ Flexible sprinkler hose fitting bends are within manufacturer specifications,

37. _____ Flexible couplings may be used for pipe 2½ in. or larger at structural separations, within 24 in. of expansion joints, within 24 in. of the top and bottom of all risers, within 12 in. above and below a floor penetration in multistory buildings, and on both sides of and within 1 ft. of concrete or masonry wall penetrations unless pipe clearance is provided,
38. _____ Minimum clearance around pipes: holes are 2 in. larger than pipe 1 in. to 3½ in., 4 in. for pipe 4 in. and larger. Clearance is not required through sheetrock which is not required to be fire rated nor when flexible couplings are used on each side and within 1ft. of penetration. A listed fire stop system shall be used for penetration holes, the system listing sheet is available,
39. _____ A 6 ell seismic separation assembly or listed flexible pipe assembly is provided at building seismic joints,
40. _____ Lateral sway bracing are spaced in accordance with the plans and calculations for all mains, cross mains, and branch lines 2½ in. and larger. Bracing is provided for the last length of pipe but within 6 ft. of the end of a feed or cross main. Bracing is required unless all the pipe is supported by rods less than 6 in. or by 30° wrap-around u-hooks for any size pipe,
41. _____ Longitudinal sway bracing is a maximum of 80 ft. for mains and cross-mains, check spacing on the plans,
42. _____ A 4-way sway brace is provided at least every 25 ft. and at the top of each riser,
43. _____ Longitudinal and lateral bracing is provided for each run of pipe between the change of pipe direction unless the pipe run is less than 12 ft.,
44. _____ Sprigs greater than 4 ft. are restrained from lateral movement,
45. _____ Splayed seismic bracing wire, wrap-around u-hooks, or lateral sway bracing shall not exceed 30 ft. spacing and are used to restrict sprinkler movement that could impact the building, equipment or finishing materials,
46. _____ Restraining straps are on all C-clamps and the strap is bolted through if there is not a lip on the beam, .
47. _____ Branch lines have one hanger per section of pipe, see exceptions,

48. ____ Mains and cross-mains have one hanger between each branch line and at the end of the main, .
49. ____ The maximum distance between the end sprinkler and hanger is 36 in. for 1in. pipe, 48 in. for 1¼ in., and 60 in. for 1½ in. pipe and greater, .
50. ____ Risers in multi-story buildings have supports at the lowest level, at each alternate level, below offsets, and at the top,
51. ____ Hangers are not within 3 in. of upright sprinklers,

Dry and Pre-action Systems

52. ____ Dry system compressor with a minimum ½ in. fill line, pressure gauges, and relief valve that function automatically and fill the system within 30 minutes,
53. ____ Pre-action and deluge systems are tripped by activation of the detection system.
54. ____ Riser room is heated,
55. ____ Air pressure is set at least 20 psi above the trip pressure,
56. ____ Dry and pre-action systems are supervised and water reaches furthest point within the time period provided on the plans or water delivery calculations in accordance with Table 7.2.
57. ____ Pre-action systems exceeding 20 sprinklers automatically supervise (constant monitoring) pipe pressure (maintain at least 7 psi) and detection devices,

Acceptance Inspection ____ / ____ / 20____ _____

Fire Code Administration Staff Captain