FIRE PROTECTION BUREAU – PLAN REVIEW
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NFPA 13 SYSTEM ACCEPTANCE INSPECTION
2006 IFC AND NFPA 13

Date of Inspection: _____ Permit Number: _____

Business/Building Name: _____ Address of Project: _____

Contractor: _____ Contractor's Phone: _____

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

	Pass	Fail	NA	
1.	____	____	____	Approved drawing and aboveground 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.; have them pitot and calculate that flow and confirm the velocity is at least 10 ft./sec.
3.	____	____	____	Hydrostatic test: wet system, 200 psi for 2 hours and it should include the 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, 16.2.2.
5.	____	____	____	Backflow prevention device is installed in accordance with the approved set of plans and forward flow tested, 16.2.5.
6.	___	____	____	Systems subject to pressures greater than 150 psi shall be hydrostatically tested at 50 psi above system working pressure, 16.2.1.2.
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 60 seconds.
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, 16.2.4.

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 ¾ in. or greater for a riser up to 2 in., 1¼ in. or greater for a riser 2½ in. to 3½ in., 2 in. for a riser 4 in. or greater, 8.15.2.4, 16.2.3.4.
10.	____	____	____	Water control valves and flow switches are electronically supervised and tested, IFC 903.4. There are 7 exceptions: 13D systems, limited area systems, 13R systems where supply is common to the sprinkler and the domestic system.
11.	____	____	____	Paddle-type water flow is not allowed for dry, preaction or deluge systems.
12.	____	____	____	24-hour monitoring service agency or remote supervising station or proprietary supervising station received signals, IFC 903.4.1.
13.	____	____	____	Water flow alarm is tested and initiates an alarm within 5 minutes, located above the FDC, and it is properly signed, 16.2.3.1.
14.	____	____	____	High-rise: each floor system shall have water flow device with a test connection and be connected to the fire alarm system.
15.	____	____	____	Permanent system identification signs for each control valve and what portion of the building each valve serves is provided, 6.7.4.
16.	____	____	____	Permanent label with hydraulic calculations is attached to the riser, 16.5.1.
17.	____	____	____	Riser is supported by hanger or attachment, for multi-story at the lowest level, each alternate level, above and below offsets, and at the top, 9.2.5.3.
18.	____	____	____	If flexible couplings are used, supports above the lowest level are designed in accordance with the approved plans to prevent an upward thrust of the piping, 9.5.3.2.
19.	___	____	____	Gauges are above and below riser check valve, 7.1.1.2.

FDC

20. ____|____ | ____ FDC capped and permanently signed with system type, PSI required, and area or building served, 8.16.2.4.7.
21. ____|____ | ____ FDC has check valve and drip valve, 8.16.2.5.
22. ____|____ | ____ FDC for wet single riser system connects to the system side, 8.16.2.4.
23. ____|____ | ____ FDC for wet multi-riser system connects after the main system shut-off valve, 8.16.2.4.
24. ____|____ | ____ FDC for dry system connects between the indicating and dry-pipe valves.
25. ____|____ | ____ FDC is a minimum 4 in. pipe, 18 in. to 48 in. above grade, and properly supported, 8.16.2.

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, 6.2.9.
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, 8.6.3.3.
29. ____|____ | ____ Sprinkler heads have a guard if subject to damage.
30. ____|____ | ____ Sprinkler heads are not painted or covered.
31. ___|____ | ____ ESFR upright deflectors are a minimum 7 in. above the top of the pipe, 8.12.5.3.2.1.
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, 8.12.6.
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. ____|____ | ____ Pipe penetrations have proper clearance 2 in. for pipe 1 in. to 3½ in., 4 in. for pipe 4 in. and larger, 9.3.
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 multi-story buildings, and on both sides of and within 1 ft. of concrete or masonry wall penetrations unless pipe clearance is provided, 9.3.2.
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 1 ft. of penetration. A listed fire stop system shall be used for penetration holes; the system listing sheet is available, 9.3.4.
39. ____|____ | ____ A seismic separation assembly is provided at building seismic joints, 9.3.3.
40. ____|____ | ____ Lateral sway bracing is required at a maximum spacing of 40 ft. for all mains, cross-mains, and branch lines 2½ in. and larger.
____|____ | ____ A. Lateral sway bracing is provided for the last length of pipe but within 20 in. of the end of a feed or cross-main.
____|____ | ____ B. Lateral sway bracing is required unless all the pipe is supported by rods less than 6 in. or by 30^0 wrap-around u-hooks for any size pipe, 9.3.5.3.
41. ____|____ | ____ Spacing does not exceed 80 ft. for longitudinal sway bracing, which is required for feed and cross-mains, and the last brace is within 40 ft. of the end of the pipe, 9.3.5.4.1 and .3.
42. ____|____ | ____ A 4-way sway brace is provided at least every 25 ft. and at the top of each riser, 9.3.5.5.
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., 9.3.5.11.
44. ____|____ | ____ Sprig ups greater than 4 ft. are restrained from lateral movement, 9.3.6.5.
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, 9.3.6.4.
46. ____|____ | ____ Restraining straps are on all C-clamps and the strap is bolted through if there is not a lip on the beam, 9.3.7.1.
47. ____|____ | ____ Branch lines have one hanger per section of pipe, 9.2.3.2.
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 1 in. pipe, 48 in. for 1¼ in., and 60 in. for 1½ in. pipe and greater, 9.2.4.
50. ____|____ | ____ Risers in multi-story buildings have supports at the lowest level, at each alternate level, below offsets, and at the top, 9.2.5.3.
51. ____|____ | ____ Risers in vertical shafts or buildings with ceiling greater than 25 ft. have support for each pipe section.
52. ___|____ | ____ Hangers are not within 3 in. of upright sprinklers, 9.2.3.3.

Dry and Preaction Systems

53. ____ | ____ | ____ 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, 7.2.6.2.2.
54. ____ | ____ | ____ Preaction and deluge systems are tripped by activation of the detection system.
55. ____ | ____ | ____ Riser room is heated, 7.2.5.
56. ____ | ____ | ____ Air pressure is set according to the manufacturer's instruction document or at least 20 psi above the trip pressure, 7.2.6.7.1.
57. ____ | ____ | ____ Preaction system is supervised and water reaches furthest point within 3 minutes.
58. ____ | ____ | ____ Preaction systems exceeding 20 sprinklers automatically supervise (constant monitoring) pipe pressure (maintain at least 7 psi) and detection devices, 7.3.2.3.
59. ____ | ____ | ____ Non-interlock and double interlock preaction systems supervise pipe pressure (maintain at least 7 psi), 7.3.2.3.2.

Additional Comments:

Inspection Date: _____ Approved or Disapproved FD Inspector: _____

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