# **Inspection Services**

MONTHLY INSPECTION · QUARTERLY INSPECTION · ANNUAL INSPECTION

## **MONTHLY INSPECTION**

- 1. Inspect water reservoir for general conditions, proper water level, fill line valve position and float valve operation.
- Inspect control valves for proper position, verify that they are secured and/ or supervised, check packing glands for proper adjustment. Also, inspect tamper switches condition (if provided).
- 3. Verify general conditions of fire pump's diesel engine:
  - a. Oil level and appearance
  - b. Coolant reservoir level
  - c. Batteries general conditions, proper acid level, poles condition, cell caps in place, cables and terminals
  - d. Visually inspect engine for leaks
  - e. Cooling loop valves are in the correct open position
- 4. 30 minutes run of diesel engine driven fire pumps and verify running conditions:
- . Engine water temperature
  - a. Oil pressure
  - b. Engine speed (RPM)
  - c. Voltmeters or ammeters readings
  - d. Pump's suction and discharge pressures
  - e. Check fire pump for abnormal vibrations and/ or noises
- 5. 10 minutes run for electric motor driven fire pumps.
- 6. Inspect fire pump control panel general conditions and verify that no alarm signals are activated.
- 7. Inspect water pressure gauges

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### **QUARTERLY INSPECTION**

- 1. Inspect water reservoir for general conditions, proper water level, fill line valve position and float valve operation.
- Inspect control valves for proper position, verify that they are secured and/ or supervised, check packing glands for proper adjustment. Also, inspect tamper switches condition (if provided).
- 3. Verify general conditions of fire pump's diesel engine:
  - a. Oil level and appearance
  - b. Coolant reservoir level
  - c. Batteries general conditions, proper acid level, poles condition, cell caps in place, cables and terminals
  - d. Visually inspect engine for leaks
  - e. Cooling loop valves are in the correct open position
- 4. 30 minutes run of diesel engine driven fire pumps and verify running conditions:
- . Engine water temperature
  - a. Oil pressure
  - b. Engine speed (RPM)
  - c. Voltmeters or ammeters readings
  - d. Pump's suction and discharge pressures
  - e. Check fire pump for abnormal vibrations and/ or noises
- 5. 10 minutes run for electric motor driven fire pumps.
- 6. Inspect fire pump control panel general conditions and verify that no alarm signals areactivated.
- 7. Inspect water pressure gauges.
- 8. Inspect system risers and their appurtenances.
- 9. Perform the 2" main drain test results on system risers.
- 10. Open the inspector test valves to verify activation of the alarm system and ensure good water flow.
- 11. Test of the fire pump control panel alarm signals.
- 12. Inspect hose houses for general conditions and verify that they are provided with the required equipment.

13. Inspect fire hose stations. Verify that they accessible, fire hoses are properly racked, nozzles are in place, couplings are in good conditions and that they are not leaking.

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## **ANNUAL INSPECTION**

- 1. Inspect water reservoir for general conditions, proper water level, fill line valve position and float valve operation.
- Inspect control valves for proper position, verify that they are secured and/ or supervised, check packing glands for proper adjustment. Also, inspect tamper switches condition ( if provided ).
- 3. Verify general conditions of fire pump's diesel engine:
  - a. Oil level and appearance
  - b. Coolant reservoir level
  - c. Batteries general conditions, proper acid level, poles condition, cell caps in place, cables and terminals
  - d. Visually inspect engine for leaks
  - e. Cooling loop valves are in the correct open position

4. 30 minutes run of diesel engine driven fire pumps and verify running conditions: Engine water temperature

- a. Oil pressure
  - b. Engine speed (RPM)
  - c. Voltmeters or ammeters readings
  - d. Pump's suction and discharge pressures
  - e. Check fire pump for abnormal vibrations and/ or noises
- 5. 10 minutes run for electric motor driven fire pumps.
- 6. Inspect fire pump control panel general conditions and verify that no alarm signals areactivated.
- 7. Inspect water pressure gauges.
- 8. Inspect system risers and their appurtenances.
- 9. Perform the 2" main drain test results on system risers.

- 10. Open the inspector test valves to verify activation of the alarm system and ensure good water flow.
- 11. Test of the fire pump control panel alarm signals.
- 12. Inspect hose houses for general conditions and verify that they are provided with the required equipment.
- 13. Inspect fire hose stations. Verify that they accessible, fire hoses are properly racked; nozzles are in place, couplings are in good conditions and that they are not leaking.
- 14. Visual inspection of all sprinklered areas to verify the following:
- Sprinklers orientation
  - a. Proper sprinklers temperature
  - b. Sprinklers spacing (between sprinklers and to walls )
  - c. Ensure that sprinklers are free of mechanical damages, corrosion, paint, loading and/ or obstructions

15. Visual inspection of all the sprinkler system piping to verify the following: It is not deteriorated

- a. It is free of external loads
- b. Check for water leaks
- c. It is provided with proper support
- d. Verify that the amount of sprinklers supplied do not exceed the one specified by code
- 16. Visual inspection of pipe hangers. Verify that they are installed at the required spacing, properly attached to building structure and that C-type clamps are provided with the required restaining straps. Also, ensure that they are not loose and/or damaged.
- 17. Inspect earthquake sway bracings in order to verify that they are properly attached to building structure, they are not loose and/ or damaged and they are installed within the required spacing.
- 18. Operate and exercise all control valves to ensure proper operation.
- 19. Water flow test at the fire hydrants to ensure there are no obstructions on the underground piping.
- 20. Completion of the required annual fire pump performance test to verify compliance with its design parameters.

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Notes:

1. The above described procedures are the basic tests required for water-based fire protection systems. They may vary according to the available fire protection system. Special testing procedures that are not described above are required to be performed to: Dry Systems, Preaction Systems, Deluge systems and Foam Systems. For additional information, please <u>Contact Us</u>.

2. All the inspections and testing procedures are completed in accordance with the NFPA 25 code (Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems).