

NFPA 25 minimum requirements for inspection, testing, and maintenance of fire pumps.

This is not an exhaustive list but several important items we feel should be done at a minimum. All NFPA 25 references are from the 2003 edition chapter 8.

Weekly Inspection

1. Each pump house, heating and ventilation louvers shall be inspected weekly.
2. All suction, discharge, and bypass valves fully open.
3. Suction pressure gage reading normal.
4. All Controller, Transfer, and Isolating switch power lights are illuminated.
5. Diesel fuel tank is two-thirds full.

Weekly Testing

1. Each fire pump shall be run every seven days in a no flow condition. If electric the pump is to be run in a no flow condition for 10 minutes, and if diesel for 30 minutes. This test should be started automatically unless an automatic run timer is used. A qualified person should be in the room to confirm that everything looks correct.
2. Record suction and discharge pressure gage readings.
3. Record pump starting pressure.
4. Check packing glands for slight discharge.
5. The circulating relief valve should be verified to be flowing enough water to keep the pump from overheating during the weekly run.

Annual Testing

1. The suction and discharge water gages shall be calibrated or replaced.
2. The pump shall be run at churn, rated (100%), and peak (150% rated) flow. The water pressures should be recorded at each pressure point. For electric motors the voltage (all three lines) shall be recorded at each point. The pump speed in RPM shall also be recorded at each point. These results should be compared to the original pump factory curve. Degradation in excess of 5% shall require further investigation.
3. The coupling between the pump and the engine or motor should be checked for alignment. Proper alignment is essential to proper performance.

Maintenance

The motor bearings should be greased in accordance with table 8.5.3.