

## **Maintenance Tips**

### **Fire Pumps - Inspection - Testing and Maintenance**

The following are some key inspection and maintenance items of NFPA 25

#### **Weekly Inspection:**

- Check housing condition during the heating season to ensure an adequate room temperature is maintained, not less than 40°F (4.4°C) 70°F or (21°C) for pump rooms with diesel pumps without heaters
- Check ventilation system in pump room to ensure operation
- Check the fire pump system, visually, to ensure that all devices appear normal and operational. Suction, discharge and bypass valves need to be fully open.
- Check fuel level and battery condition
- Check power is on and Transfer switch is in normal position.

#### **Weekly Testing:**

- Conduct fire pump operating test by starting the pump automatically
- Record the pump starting pressure
- Record the system suction and discharge pressures, both when the pump is running and when the pump is off
- Check the pump packing glands for slight discharge. Adjust packing glands, if necessary, to ensure a slight drip
- Verify function of control alarms
- Verify setting of relief valve
- Check packing boxes, bearings, and pump casings for overheating
- Check for unusual noises or vibration.
- Observe the time for engine to crank (diesel)
- Observe the time for the engine to reach running speed (diesel)
- Observe the engine oil pressure gauges, speed indicator, water, and oil temperature indicators, periodically, while engine running (diesel)
- Check heat exchanger for cooling waterflow (diesel).

#### **Annual Testing:**

- Conduct pump performance test (flow test to verify pump performance with the manufacturer's original pump curve)
- Verify pump speed at each flow
- Record suction and discharge pressure at each flow
- Verify setting of relief valve
- Operate water flow and alarm switches

- Confirm valve positions.

**Annual Maintenance:**

- A preventative maintenance program shall be established on all components of the following equipment
- Pump assembly in accordance with manufacturer's recommendations
- Electrical Systems/Controllers in accordance with manufacturer's recommendations
- Motor components in accordance with manufacturer's recommendations
- Diesel engine components in accordance with manufacture's recommendations

Recordkeeping: Upon request records are to be kept of the inspections, tests and maintenance and available for review by the authority having jurisdiction.

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