

# NFPA 25 Sprinklers and Fire Pumps

## **Inspections, Testing, and Maintenance**

We provide NFPA compliant testing for all your sprinkler needs including flow testing, main drain testing, fire pump testing and back-flow preventer testing.

## **POWER GENERATION**

# With ORR, your inspections are done on time and within code.

- Inspections & Testing
- Repairs & Maintenance
- Upgrades and Modifications
- Emergency Service
- System Design & Installation
- Online Reporting NetSITE



## Annual Inspections 5, 6, 12 year Hydrostatic Testing

ORR provides real time inventory data for all your portable fire extinguishers. Knowing the exact number of extinguishers you have at each facility, by type, will prevent surprises for upcoming code compliant testing and budgeting planning.



## **Semi-Annual Inspection & Testing**

ORR is known for being "Mission Critical Fire Protection" Experts" because we are trusted to protect billions of dollars worth of mission critical assets. We design, install, inspect, test and maintain gaseous clean agent fire suppression systems across the United States.



## NFPA 12

**Carbon Dioxide Fire Suppression** 

## Installation, Inspection, Testing, and Maintenance

ORR specializes in high pressure and low pressure CO<sub>2</sub> systems. We can inspect and provide recommendations for your turbine system in addition to the balance of your plant.



## Installation, Inspection, Testing, and Maintenance

Our technicians are trained to be the best when it comes to life safety. With some of the most experienced technicians in the industry, ORR offers the expertise and knowledge required to inspect, test and repair all major fire systems.

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## FUNCTIONAL TESTING CODE REQUIREMENTS

Check CO<sub>2</sub> level in low pressure bulk tank.

Diesel Fire Pumps

Operate fire pump under no-flow conditions for 30 minutes. Make visual observations according to checklist for pump and diesel engine.

## MONTHLY

**Electric Fire Pumps...** Operate fire pump under no-flow conditions for 10 minutes. Make visual observations according to checklist for pump and electrical system.

## OUARTERLY

Mechanical water flow alarm devices - Water motor gongs. Valves, Valve Components Low air pressure alarms, quick opening devices, priming water.

Fire Alarm Systems .......NFPA 72 **Initiating Devices** 

Supervisory pressure switches, tamper switches, suppression system supervisory devices.

## SEMI-ANNUALLY

Carbon Dioxide Fire Suppression......NFPA 12 Weigh high pressure cylinders. Sprinklers .....

Vane-type and pressure-switch type waterflow devices.

Valves, Valve Components Control valve supervisory switches - Tamper switches.

Clean Agent Suppression NFPA 2001

Inspect clean agent cylinders.

Fire Alarm Systems ......NFPA 72 Mass notification equipment.

Carbon Dioxide Fire Suppression NFPA 12

Checkout and test for operation. Check for system or hazard changes. Check time delays for operation. Check audible alarms for operation. Check visible signals for operation. Check for warning signs. Check detection and control system.

## CGA G-6.12 Low Pressure Bulk Tanks

Check instruments and alarms. Test pressure regulating devices an set pressure. Test safety relief valves. Calibrate pressure gauges and switches. Inspect tank insulation. Check pipes and tank attachments for corrosion.

and visual devices. Agent quantity and pressure shall be verified to design specification. Agent distribution piping network integrity verified.

Functional test of all detection, actuating inputs, alarm-sounding or displaying devices, remote annunciators, air-handling shutdown, and power shutdown relays per original design.

Fire Alarm Systems NFPA 72

Control Equipment (FACP): Building Systems Connected to Supervising Station Functions, fuses, interface equipment, lamps & LEDs, primary power supply, transponders.

## **Emergency Voice/Alarm Communications Equipment**

**Remote Annunciators** 

**Initiating Devices** 

Duct smoke detectors, electromechanical releasing devices.

Fire extinguishing system or suppression system switches.

Fire alarm boxes (manual pull stations). Detectors: smoke, heat, gas, flame and others.

## **Alarm Notification Devices**

Audible devices, visible devices.

Supervising Station Fire Alarm Systems-Transmitters

DACT, DART, special procedures.

Mass Notification Systems

**Emergency Control Functions and Equipment** 

Portable Fire Extinguishers NFPA 10 Maintenance: Conductivity test of all carbon dioxide hose assemblies. Pressure regulators on wheeled units. Uncoil and inspect hoses on wheeled units. Empty and recharge all stored-pressure loaded-stream fire extinguishers.

.....NFPA 25 Sprinklers ..... Main drain, antifreeze solution concentration.

Valves, Valve Components

Pressure reducing valves/relief valves (partial flow).

Master pressure reducing valves (full flow). Control valves, dry system and deluge full trip test, preaction valve partial trip test. Air maintenance device.

### **Backflow Prevention Assemblies**

Full forward flow test.

### Standpipes

Main drain test, hose valves, valves (all types).

## **Private Fire Service Mains**

Monitor nozzles, hydrants

### **Fire Pump System**

Fire pump alarm signals, full flow test, and perform annual maintenance.

Fire Alarm Systems .......NFPA 72 Change out batteries as recommended by manufacturer.

Dry and preaction system full flow trip test. Dry and preaction system air leakage test.

Portable Fire Extinguishers..... at that time

## 5 YEAR CYCLE

Carbon Dioxide Fire Suppression NFPA 12 Test or replace system hoses

Clean Agent Suppression NFPA 2001 Hydro test discharge hoses or replace.

Check valves tested, change initiators.

Fire Alarm Systems NFPA 72 Required battery replacement.

Portable Fire Extinguishers NFPA 10 Internal inspection and hydrostatic test of stored-pressure water, water mist, and loaded stream extinguishers. Internal inspection and hydrostatic test of wetting agent, AFFF, FFFP, dry chemical

(stainless steel shells), carbon dioxide, and wet chemical extinguishers. Hydrostatic test of pressure cartridges associated with portable extinguishers and wheeled units. Hydrostatic testing of carbon dioxide hoses equipped with a shut-off valve.

Sprinklers NFPA 25 Test gauges or replace. Sprinklers – Extra-high temperature/corrosive atmosphere.

Check Valves - Test or replace. Piping internal inspection for obstructions.

## Standpipe - Full Flow Test Remote Point

Hose connection pressure reducing valves (Full Flow).

Hydrostaticly test manual and dry standpipes.

## **Standpipe Hoses**

5-Year test for new hoses and every 3 years thereafter.

## Valve, Valve Components

Pressure reducing valves and relief valves (full flow).

## **Private Fire Service Mains**

Full flow test

Portable Fire Extinguishers Perform internal investigation on stored-pressure extinguishers which require a 12-year hydrostatic test.

## 12 YEAR CYCLE

Carbon Dioxide Fire Suppression NFPA 12 Hydrostatic test of high pressure cylinders.

Portable Fire Extinguishers NFPA 10 Hydrostatic test of cartridge-operated dry chemical and dry powder extinguishers with mild steel shells. Hydrostatic test of halogenated (clean agent) extinguishers.

## LONG TERM CYCLES

Clean Agent Suppression NFPA 2001 CGA (Compressed Gas Actuator) - Replace at 10 years and every 10 years thereafter.

Sprinklers .......NFPA 25

Standard Response Sprinklers Standard sprinkler heads at 50 years and every 10 years thereafter.

**Quick Response Sprinklers** 

Quick Response head at 20 years and every 10 years thereafter.

## **Dry Type Sprinklers**

Dry sprinkler head at 10 years and every 10 years thereafter.