

# POWER GENERATION

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

- Inspections & testing
- Emergency service
- Repairs & maintenance
- System design and installation
- Upgrades and modifications
- Online reporting — NetSITE



## 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.



## NFPA 10 Portable Fire Extinguishers

### 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.



## NFPA 2001 Clean Agent Fire Suppression

### 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.



## NFPA 72 Fire Alarm Systems

### 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.

# Functional Testing


# CODE REQUIREMENTS

## WEEKLY

 **Diesel Fire Pumps** ..... NFPA 25  
Operate fire pump under no-flow conditions for 30 minutes  
Make visual observations according to checklist for pump and diesel engine

## MONTHLY

 **Emergency Lights/Exit Signs** ..... NFPA 101  
30-Second quick check


 **Electric Fire Pumps** ..... NFPA 25  
Operate fire pump under no-flow conditions for 10 minutes  
Make visual observations according to checklist for pump and electrical system

## QUARTERLY


 **Sprinklers** ..... NFPA 25  
Mechanical water flow alarm devices — Water motor gongs  
**Valves, Valve Components**  
Low air pressure alarms, quick opening devices, priming water

## SEMI-ANNUALLY

 **Hood Suppression Systems** ..... NFPA 17A and 96  
Test operation of detection system and releasing devices  
Replace fusible links

 **Sprinklers** ..... NFPA 25  
Vane-type and pressure-switch type waterflow devices

**Valves, Valve Components**  
Control valve supervisory switches — Tamper switches

 **Fire Alarm Systems** ..... NFPA 72  
Optical flame detectors, valve tamper switches, water flow switches

## ANNUALLY

 **Clean Agent Suppression** ..... NFPA 2001  
Test all systems devices — Detectors, pull stations, abort stations discharge circuits, audible 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

 **Emergency Lights/Exit Signs** ..... NFPA 101  
90 Minute drain test and inspection, verification of charge voltage, alignment of light heads, hazard assessment, inspection sticker, required paperwork

 **Fire Alarm Systems** ..... NFPA 72  
**Control Equipment (FACP): Building Systems Connected to Supervising Station**  
Functions, fuses, interface equipment, lamps & LEDs, primary power supply

### Batteries

### 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: heat, smoke, gas, carbon monoxide, and others

### Special Hazard Equipment

Initiating and releasing circuits, releasing devices, abort devices

### Alarm Notification Devices

Audible devices, visible devices

### Supervising Station Fire Alarm Systems - Transmitters

Dialer, DACT, DART, all other transmitters

### 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

 **Sprinklers** ..... NFPA 25  
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

Low-temp alarms at beginning of heating season

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

 **Two-Way Radio Communication Enhancement Systems** ..... NFPA 1221  
Operational test under normal conditions

## 3 YEAR CYCLE


 **Fire Alarm Systems** ..... NFPA 72  
Replace batteries or perform a load test to see if performance is acceptable


 **Sprinklers** ..... NFPA 25  
Dry and preaction system full flow trip test  
Dry and preaction system air leakage test

 **Portable Fire Extinguishers** ..... NFPA 10  
Replace liquid charge-type AFFF and FFFP extinguishers — Perform internal examination at that time

## 5 YEAR CYCLE

 **Clean Agent Suppression** ..... NFPA 2001  
Hydrostatic test discharge hoses or replace  
Check valves tested, change initiators

 **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)

Hydrostatically 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


 **Two-Way Radio Communication Enhancement Systems** ..... NFPA 1221  
Full re-acceptance test of system

## 6 YEAR CYCLE

 **Portable Fire Extinguishers** ..... NFPA 10  
Perform internal investigation on stored-pressure extinguishers which require a 12-year hydrostatic test

## 12 YEAR CYCLE

 **Hood Suppression Systems** ..... NFPA 17A  
Hydrostatic test of all containers and hose assemblies

 **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**  
Replace all sprinklers or test to keep at 50 years  
**Quick Response Sprinklers**  
Replace all sprinklers or test to keep at 20 years  
**Dry Type Sprinklers**  
Replace all sprinklers or test to keep at 15 years

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