

# Fire Protection System FAQ's

## What are Fire Protection Systems?

Any water or chemical based extinguishing system, whether automatic or manual, any electrical appliances that are used to detect smoke or fire and transmit a local alarm to evacuate occupants and/or to notify the fire department, and any appliance that closes in the event of fire to prevent smoke or flame spread, is a fire protection system.

## Why do Fire Protection Systems need to be Inspected, Tested, and Maintained?

Like any other piece of equipment, the readiness of proper activation or notification relies on proper maintenance. The required maintenance and repairs to your system comes from comprehensive inspection and testing by qualified individuals.

## Who is responsible for the Inspection, Testing, and Maintenance of Fire Protection Systems?

The building owner is ultimately responsible for this activity, as required by Chapter 9 of the International Fire Code.

## Who is allowed to perform Inspection, Testing, and Maintenance for the property owner?

It depends on which discipline of fire protection work is required. For water based systems (i.e. sprinkler systems, fire pumps, and standpipes) a technician requires a NICET certification through the Washington State Fire Marshal's Office. A list can be found on their website <http://www.wsp.wa.gov/fire/sprinkler/licensing/htm>. Fire alarm systems service personnel need meet the requirements of NFPA 72. Inspection, testing, and maintenance, of other fire protection systems such as carbon dioxide, halon, wet chemical, dry chemical, clean agent and fire doors must meet the requirements of their respective NFPA standard.

## How does the Fire Marshal's office know that this work is being performed?

The fire protection companies are required on behalf of the owners to forward inspection, testing, and maintenance reports to the Fire Marshal's Office for review. This is required by Chapter 9 of the International Fire Code.

## What if my fire protection company finds deficiencies with my fire protection system?

You should make the required repairs as soon as possible. You do not want to be in violation of the International Fire Code. Your tenants, employees, commodities, accounts receivable, and processes need the protection and early notification your fire protection system provides.

## Fire Alarm and Detection Systems NFPA 72

Need testing annually. Some of the components need to be tested more frequently than others. Contact your fire protection service company for more information. Testing requirements may depend on the type of system you have.

## Fire Doors NFPA 80

Need testing annually (IFC 703.4).

## Clean Agent NFPA 2001

Need to be inspected every 6 months and tested annually.

## Carbon Dioxide NFPA 12

There are many different types of CO2 extinguishing systems. Contact your fire protection service company.

## **Dry Chemical NFPA 17**

Need inspection and testing every 6 months. Dry chemical systems may only be used under a Type I commercial kitchen hood under certain circumstances. The system may need to upgrade to a UL 300 compliant system. Contact your fire protection company for more comprehensive information.

## **Halon NFPA 12A**

Need to be inspected every 6 months and tested annually.

## **Wet Chemical NFPA 17A**

Needs to be tested and maintained every 6 months.

## **Private Fire Mains and Hydrants NFPA 24**

Private hydrants need to be inspected annually. DDCV (backflow preventer) requires full flow annually. Underground piping must be flow-tested every 5 years.

The City of Kent Public Works Department requires certification of the DDCV annually. These documents must be filed with the Public Works Department.

## **Fire Pumps NFPA 20**

Need to be tested annually at full flow.

Motors and Mechanical Transmissions need to be tested annually.

## **Hoses and Standpipes NFPA 14**

Piping, hose connections, cabinets, hoses and nozzles must be inspected annually. Hoses for use by building occupants shall be tested every 5 years.

Standpipes require pressure-control valves, pressure-reducing valves, hydrostatic testing and flow testing every 5 years.

## **Sprinkler Systems NFPA 25**

All sprinkler systems need to be inspected annually. In addition, all main drains and all valves must be tested annually.

Every 5 years, gauges need to be tested and/or replaced. An internal pipe examination, a valve examination, and an underground obstruction investigation need to be completed every 5 years. The obstruction investigation can be performed though a back flush of the F.D.C. Contact your fire protection service company to see how this can be best accomplished.

Every 3 years dry pipe, pre-action and deluge valves need full trip tests. This includes all quick opening devices.

## **Fire Extinguishers NFPA 10**

All fire extinguishers need to be inspected annually by a qualified individual. Because extinguishers vary in type some require more extensive testing and maintenance at frequencies that are different. Contact your fire protection company for more comprehensive information.