



BELLINGHAM FIRE DEPARTMENT

Life Safety Division
1800 Broadway
Bellingham, WA 98225

FIRE FACTS CONFIDENCE TESTING: WILL YOUR FIRE PROTECTION SYSTEM WORK WHEN YOU NEED IT?

Life safety and fire protection equipment is installed in buildings to protect you and your property. Fire alarms, sprinklers, fire doors and standpipe systems detect, suppress, control or extinguish fires and give occupants time to escape.

Sometimes, though, these devices fail with catastrophic results:

FACT: On May 27, 1987, the fully sprinklered Sherwin-Williams distribution warehouse in Dayton, Ohio, burned to the ground. Loss: \$32 million.

FACT: In 1988, Bellingham's Raintree Products, a hot-tub manufacturing plant, suffered a fire. Properly operating fire detection and sprinklers controlled the fire until fire fighters arrived, and the company was back in operation the next morning.

A program of regular maintenance and inspection, called confidence testing, can enhance the reliability and effectiveness of fire protection systems.

Since 1986, Bellingham Fire Department has required testing of fifteen different types of life safety and fire protection equipment.

FACT: During confidence testing, technicians have found fire alarm and sprinkler systems turned off or so damaged they would have been ineffective.

TESTING REQUIREMENTS

Most life safety and fire protection require annual inspection and testing, although some systems must be checked every six months and others as infrequently as five years. Of course, if a fire department inspection reveals a deficiency, it must be corrected regardless of when it is found.

Inspection, testing and maintenance are performed by qualified, licensed contractors who specialize in this type of work. Confidence testing is not performed by the fire department.

You should contact several contractors to give you a bid on regular maintenance and testing. You should consider a maintenance contract that assures regular visits and inspections. If you do not own the building you are in, check with the landlord to determine who pays for the work.

You already have spent a lot of money to install the equipment, now you should anticipate the necessary maintenance to keep it operating at its best level of protection. You want to feel comfortable it will work reliably in the unlikely event of a fire.

If the contractor finds problems with your equipment, the company should make the necessary repairs to bring the system back into service the way it was designed.

Once they have completed the work, the contractors must send a copy of their inspection report to the fire department where it will be reviewed for compliance and kept on file for at least three years.

FIRE AND LIFE SAFETY SYSTEMS

Fire protection equipment testing can be complicated depending upon the complexity of the systems and their function. The following descriptions are summaries of the work that must be performed.

Some fire protection systems are interconnected in such a way they operate in sequence. A smoke detector, for example, may sound an alarm, close fire doors, start a fire pump and recall an elevator. The sequence test assures these systems operate together, but does not necessarily guarantee a complete test on the individual systems.

Automatic Sprinklers are tested once a year to assure there is adequate water pressure and supply, valves are in the open position, there are no leaks, warning alarms operate and there are no impediments to proper sprinkler operation. *These tests must be performed by a state-licensed fire sprinkler contractor.*

Elevators outfitted with fire control systems are tested annually to assure operation of the recall system, door closer service and the proper elevator car travel. This work can be done by the elevator company in conjunction with the fire alarm contractor.

Emergency power systems (generators) are tested once each year by qualified electricians to assure they start when needed, have adequate back-up fuel and can support the load for which they were designed.

Fire Alarm Systems are tested annually by qualified low voltage electricians or alarm technicians to assure they operate automatically, have adequate normal and back-up power, can be heard throughout the premises and, if applicable, notify the fire department.

Fire Doors are tested and inspected to assure they close properly and maintain a tight seal in their tracks or jams. Fire doors are an important part of the building's fire resistant design, but often are compromised by accident or design. Doors can be tested and inspected by the door installer or a maintenance person. *Overhead doors can be extremely dangerous and should be tested only by qualified persons.*

Fire escapes must be load tested every five years to confirm they will support the weight of many people on them, and not fall off the building or collapse. Welding shops or engineers can verify their strength.

Water Systems must be flushed annually to assure the water supply is adequate.

Private Hydrants must be flowed, lubricated, and painted to verify they are operational and properly identified. This work can be performed by plumbers or maintenance persons.

Fire Pumps must be tested annually to assure water flow and that they can maintain adequate pressure in the pipes. Your pump installer or sprinkler contractor can perform this work.

Halon, Carbon Dioxide, Dry Chemical and Range Hood Suppression Systems must be inspected and tested every six months by a qualified service technician. The inspection will verify proper installation, confirm the fire extinguishing materials or pressurizing gases have not leaked out, and will minimize the risk of accidental discharge.

Range Hood Suppression Systems and ducts should be cleaned regularly to remove accumulations of highly flammable grease.

Mechanical Smoke Control Systems are an important tool to remove smoke from a building to protect lives and minimize property damage. They must be tested quarterly. The company who installed the equipment or a heating and air conditioning contractor can perform the work in conjunction with the fire alarm technician.

Standpipe Systems must be tested every five years to make certain they will hold pressure and deliver the water necessary to control a fire. Hoses and nozzles are checked to verify they are in good working order.