

SANTA ROSA FIRE DEPARTMENT

FIRE PREVENTION BUREAU STANDARD

July 1, 2010



FIXED EXTINGUISHING SYSTEM HOOD SYSTEM

PURPOSE

This standard outlines the general requirements for the installation and maintenance of Fixed Fire Extinguishing Systems. Information contained herein applies to typical instances and may not address all circumstances.

CODE REFERENCES

2007 California Fire Code (CFC) Chapter 904

2006 NFPA 17

PERMIT(S) REQUIRED

A Fixed Fire Extinguishing System Installation permit is required. Categories and fee amounts are found at: <http://ci.santa-rosa.ca.us/doclib/Documents/IB%20018.pdf>

ATTACHMENTS

- 1) Plan Review Checklist – Fixed Fire Extinguishing Systems
- 2) Inspection Checklist – Fixed Fire Extinguishing Systems

REQUIRED INSPECTIONS

- 1) Fixed Extinguishing System
 - Gas and electric service shall be operational before the test.
 - If the building is equipped with a fire alarm system, for the purpose of evacuation, the activation of the fixed extinguishing system shall activate an alarm at the fire alarm panel and communicate to the monitoring company if the system is so equipped.
 - Balloons or a wet fire test shall be provided for each nozzle.
 - An inert gas cylinder may be used for the test.
 - Activation of the manual pull station shall be verified for system operation, gas and electrical shut down.
 - A fusible link shall also be cut within the plenum area to simulate tripping of the system and verify system operation, gas and electrical shut down.
 - Verification of system signage and Class K fire extinguisher installed within 30 feet of cooking line.

Inspections shall be scheduled a minimum of 48 hours in advance. Directions for scheduling are found at: <http://ci.santa-rosa.ca.us/news/Pages/AutomatedFireInspectionRequestSystem.aspx>

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Plans shall be submitted for approval and a permit obtained prior to installing a commercial cooking fire suppression system. Three (3) sets of plans and specifications shall be provided. Plans shall include the information specified below, and failure to provide all of the required information may result in the plans being rejected. All new or repaired systems must comply with the UL 300 Standard.

Installers shall provide, or have on file, a current Contractor's License, Worker's Compensation Insurance certificate and current Santa Rosa Business Tax Certificate.

Allow ten (10) working days for the review of submitted plans. Please call 543-4351 Fire and Live Safety Plan Review Division for additional information.

PLANS AND SPECIFICATIONS

Working plans and specifications shall be submitted to the Fire and Life Safety Plan Review Division for review and approval prior to installation. The plans shall include, but not limited to, the following:

1. Scale diagram of area and equipment to be protected, including dimensions of all hoods, ducts, appliances, devices and spaces.
2. Manufacturer and model number of system, devices and materials proposed to be installed including; manufacturer's installation instructions, cut sheets or other descriptions as appropriate. Compliance with UL 300 Standard.
3. Isometric drawing of the system piping and all component parts (See Figure No. 1) including:
 - Type, size and length of piping.
 - Size and number of fittings.
 - Model number and locations of nozzles.
 - Location, temperature and model number of detectors.
 - Location and size of extinguishing agent container(s).
 - Location of manual means of activation.
 - Location and identity of auxiliary equipment such as gas and electric shutoffs.
 - Interconnections of system to building fire alarm system.
 - Location of a Class K fire extinguisher in relationship to the hood.

SHUT OFFS AND ALARMS

Upon activation of the fire suppression system, both the gas and electrical supply to any of the equipment or appliances located under the protected hood shall be shut off. This will include all appliances, wall sockets, and light switches located under the protected hood. All shut off devices shall require manual reset.

Where a fire alarm signaling system is serving the occupancy where the fire suppression system is located, the activation of the fire suppression system shall also activate the fire alarm system.

INSPECTION

A final inspection of the installed system shall be made by the Fire Department including witnessing of the acceptance tests performed in accordance with the appropriate NFPA standard.

The Fire department shall be notified at least 48 hours in advance of the proposed test. The approved plans, specifications and permit shall be available on site.

Systems shall be tested utilizing an inert gas in lieu of the extinguishing product. Balloons shall be provided at each nozzle location to ensure equal distributions of the gas. The test shall be activated by a test detection link and again

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activated by the manual pull station. Where field conditions necessitate change from approved plans, the Fire Department shall be consulted. An Instruction Manual shall be located adjacent to the manual activation station and provided to the owner.

A Class K portable fire extinguisher shall be installed within 30 feet of the hood system. The extinguisher shall be mounted 3 – 5 feet from the finished floor.

FIGURE NO. 1 - LEGEND

1. CYLINDER CONTROL UNIT
2. PIPING - Schedule 40 stainless, chrome plated or black pipe.
3. CYLINDERS - wet chemical solution stored.
4. NOZZLES - Fixed or swivel head.
5. REMOTE MANUAL PULL STATION
6. FUSIBLE LINK & BRACKETS
7. AUTOMATIC FUEL SHUT-OFF VALVE & ELECTRICT SHUT OFF DEVICE - As required by NFPA 17A
8. CORNER PULLEYS AND ACCESSORIES
9. ELECTRIC SHUT DOWN
10. FIRE ALARM CONNECTION
11. CLASS K FIRE EXTINGUISHER

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