

Chesterfield Fire and EMS

Fire and Life Safety Division

WET CHEMICAL EXTINGUISHING SYSTEM

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WET CHEMICAL EXTINGUISHING SYSTEM

NFPA 17-A 2002 Edition; International Building Code/International Fire Code 2009 Edition

Project Name : _____

Project Address : _____

Building Permit #: _____ Date : _____

Code Edition: _____

All supporting documentation-showing items listed below are required for review. The checklist is based on the 2002 Edition of NFPA 17-A.

General (All submissions shall include the following):

- A minimum of four copies of shop drawings, and submittal data shall be provided with permit application permitting evaluation of the system prior to installation. The permit application shall clearly designate the system as being required for compliance with Virginia Uniform Statewide Construction Code, or installed as an elective system at the discretion of the owner.
- Provide the name and address of project or tenant where system will be installed.
- Provide the name, address and telephone/fax numbers of designer of fire suppression/detection system. NFPA 17A – Section 6.1
- The submitted plans are to be of uniform size and drawn to a recognized scale or fully dimensioned. NFPA 17A – Section 6.3.1
- The submitted plans shall contain sufficient detail to evaluate the protection of the hazard (s). Provide a floor plan and elevation views indicating the location of the hood(s), all appliances that will be or are required to be under the hood(s), the location of the pull station and the location of all appliances with nozzle locations, including required height above the hazard surface. NFPA 17A – Section 6.3.2
- The submitted plans shall show a detail of the hood and associated ductwork and dimensions of the hood and associated duct work. NFPA 17A – Section 6.3.2
- The submitted plans shall show the location of all appliances indicating which

appliances require protection, their arrangement under the hood and the hazard area of each appliance. NFPA 17A – Section 6.3.2

- The submitted details of the system shall include the size, type, brand, length and arrangement of all connected piping. The submitted plans shall provide a description and location of nozzles so that the adequacy of the system can be determined. Information shall be submitted pertaining to the location and function of detection devices, operating devices, auxiliary equipment, and electrical circuitry. NFPA 17A – Section 6.3.4
- The submitted plans shall indicate maximum flow points available for the system, the flow point(s) of each nozzle type, the number of each nozzle type utilized, and the total flow points actually utilized. NFPA 17A – Section 6.3.3
- A fusible link or heat detector shall be provided above each cooking appliance or group of appliances protected by a single nozzle. NFPA 17A – Sections 5.6.1.4, 5.6.1.5, 5.6.1.6 and 5.6.1.6.1
- The submitted plans shall indicate the specific temperature rating of the fusible link or heat detector utilized.
- At least one manual system actuator, pull station, shall be provided for each system and be located not more than 4 feet and not less than 42 inches above the finished floor. NFPA 17A – Section 5.2.1.10
- The manual system actuating device shall be a minimum of 10 ft. and a maximum of 20 feet from the kitchen exhaust system, be conveniently and easily accessible at all times, including at the time of a fire. IBC/IFC - Section 904.11.1
- An automatic means shall be provided to ensure the shutoff of fuel or power sources to the protected appliances that are located under ventilating equipment protected by the extinguishing system, upon system actuation. NFPA 17A – Section 4.4.3.1
- An audible or visual alarm shall be provided to show that the system has operated, and that the system is in need of a recharge. NFPA 17A – Section 5.2.1.8
- If a fire alarm system is provided in the building, the extinguishing system shall be connected to the fire alarm panel in accordance with the requirements of NFPA 72 - The National Fire Alarm Code (2007 edition). The actuation of the extinguishing system will sound the building fire alarm as well as provide the function of the extinguishing system NFPA 17A – Section 5.1.9
- Multiple systems that are protecting back-to-back or adjacent non-separated hoods shall be installed to ensure the simultaneous operation of all systems protecting the hoods. NFPA 17A – Section 5.1.5
- Automatic fire suppression shall be provided for all portions of a common exhaust duct.

NFPA 17A – Section 5.6.2

- A specifically listed “K” type fire extinguisher shall be provided in accordance with International Fire Code. The portable extinguisher shall be compatible with the extinguishing agent utilized for the fire suppression system and shall be within 30’ of the cooking equipment. IBC – Section 906.4 and IFC - Section 904.11.5.2.

- Manufacturers’ data sheets for the following:**
 - The hood and ductwork configuration with listed protection criteria.
 - Appliances with listed protection criteria. NFPA 17A – Section 6.1.1 (6)
 - Pipe and fittings NFPA 17A – Section 4.5
 - Nozzles NFPA 17A – Section 4.3
 - Extinguishing Agent containers
 - Detectors, indicators, and alarms
 - Operating devices
 - Fuel shutoff devices
 - Portable fire extinguishers
 - Other _____

- Mechanical, Plumbing (gas), and Electrical final inspections shall be completed prior to scheduling the required inspection and testing of the fire suppression system with Chesterfield County Fire and Life Safety Division.

- Prior to requesting a final inspection of the wet chemical fire suppression system, the installer shall certify that the system has been installed in accordance with the approved plans, manufacturer’s listed installation and maintenance manual. The letter of certification shall be presented to the inspector

- A “Full Agent Discharge” acceptance test shall be performed in accordance with the IBC/IFC – Sections 901.5 and NFPA 17A – Section 6.4.3.

- The manufacturer’s recommended procedure for the make up of the test discharge solution and required flushing agent shall be shown on the plans.

- Where movable cooking equipment is to be installed, a means shall be provided to ensure that the cooking equipment is properly repositioned, after movement for cleaning or servicing, in relation to the appliance discharge nozzle. Permanent floor rails or guides, permanent floor markings or other suitable means of marking the correct cooking equipment location, as acceptable to the Authority Having Jurisdiction, shall be provided and in place at the time of final inspection. NFPA 17A – Section 5.6.4