



## CLARK COUNTY FIRE DEPARTMENT - FIRE PREVENTION BUREAU

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### Permit Submittal Guideline

## **NFPA 17A-COMMERCIAL COOKING AUTOMATIC EXTINGUISHING SYSTEMS (WET CHEMICAL)**

This guide is to assist in the permitting process for commercial cooking automatic extinguishing systems-wet chemical. A construction permit is required for the installation per section 105.6.1 of the IFC.

### **APPLICABLE CODES:**

The following codes and standard apply to this permit:

- *Standard for Ventilation and Fire Protection of Commercial Cooking Operations* NFPA 96, 2024 edition
- *Standard for Wet Chemical Extinguishing Systems*, NFPA 17A 2021 edition
- *International Fire Code*, (IFC) 2024 edition
- *Clark County Fire Code Amendments*, (CCFC) 2024 edition

### **SUBMITTAL REQUIREMENTS:**

**These submittal requirements are not all inclusive, nor are they a limit to the extent of the information, etc., which may be necessary to properly evaluate the submitted plans and documents. Not all items may apply to your project.**

**PLANS:** To be designed to an indicated scaled or dimensioned and saved to a PDF file.

- Plans shall include all information applicable to project per chapter 7 of NFPA 17A
- Systems must be a pre-engineered wet chemical system tested in accordance to UL 300.
- State the specific design manual (Examples; Amerex, Ansul, Badger, Buckeye, Kidde, Pyro-Chem or Range Guard). Systems will be evaluated per their specific manuals. Fire Prevention may request a copy of the manual from the submitter. Data is always needed for PCU submittals.
- Provide support documentation from the suppression system manufacturer in cases when the equipment protected is not covered in a manual.
- Plans to be reviewed and signed by the contractor. Include the licensee's name, contractor's license number, Nevada State Fire Marshal number, and signature.
- Plans examiner may require additional manufacturer's specification sheets.

### **PLAN CHECK LIST:**

#### **A. SYSTEM:**

- Provide the type of system- make and model.
- Provide the total number of nozzles and flow numbers per cylinder(s).
- Show the location and size(s) of all cylinder(s) and release mechanism(s). If electronic detection system is utilized and detectors come from Fire Alarm system a separate fire alarm permit is needed.

- Show plan and isometric views of the piping and detection lines. Ensure the dimensions of all piping including diameters, lengths, and fittings from the manifold tank(s) to nozzles are provided.
- Include nozzle model numbers, flow numbers, direction of discharge, angle, spacing away from the appliance, and the locations within the plenum or duct.

**B. HOOD:**

- Provide type of Filter Bank; Single or V-configuration.
- Include dimensions of hood, plenum and duct opening.

**C. APPLIANCES:**

- Provide the identification and dimensions for all appliances. Include the dimensions of drip boards and/or back-shelves when provided.
- Provide the dimensions and separation distances between appliances.
- If applicable, provide the arrangement of nozzles and fusible elements within PCU or OCU units.

**D. ACTIVATION:**

- Provide information on system interlock with fuel shut-offs, ventilation, door closer/shutters, openings and smoke and heat vents. Include the type of fuel shut-off device (gas or electrical) and provide location.
- Provide information on alarm and warning signs, and monitoring. If provided include location and connection to the fire alarm system. Include the type of alarm signal.
- Please Note: Hood systems installed in buildings with fire alarm systems shall be interfaced with the fire alarm system.
- The cooking exhaust fan is not required to be shut down upon activation.
- Provide the location for the manual pull station in relation to the path of egress from the kitchen. Include the distance and detail for installation. Refer to IFC 904.14.1.

**Wet Chemical Systems are required per IFC Section 904.2.2/NFPA 96 Section 10.1.2**

- For cooking equipment that produces grease-laden vapors having a Type I Hood.
- For associated fume incinerators, thermal recovery, pollution control units (PCU) and odor control units (OCU) connected to the exhaust duct.

**Note:**

- Appliances (such as barbeques and smokers) using solid fuel such as wood shall have a separate hood and duct system.
- All grease ducts that exceed 75 feet in length must be protected by an approved sprinkler system. Refer to Sprinkler per NFPA 13 Permit Guide for submittal information.
- Any modifications to an existing wet chemical system will require a new submittal. This includes adding additional coverage, modifying, or relocating appliances, changes in cooking media, or modifications to hood, plenum, or duct systems.
- Provide manufacturers listing documentation for smoker boxes that are UL listed for use without a separate hood and duct system.
- Systems installed in buildings with a fire alarm system shall be interconnected with the fire alarm system.
- Submittals of systems using electronic detection are to include details of the fire alarm interconnection.