

## 2.02 Submittal Requirements for Kitchen Hood and Duct Extinguishing Systems (2022)

**Reference:** 2022 CBC, 2022 CFC Sections 607, 608, 904, and 906, 2021-NFPA 17, 2021-NFPA 17A, & 2020-NFPA 96.

**Purpose:** All commercial-type cooking equipment must be protected by a fire extinguishment system. All new extinguishing equipment must conform to 2005 UL Standard 300.

**Scope:** This bulletin describes the information to be provided on plans submitted for a building permit to install or modify a kitchen hood and duct fire suppression system.

### I. SUBMITTAL REQUIREMENTS

- A. Working plans shall be drawn to an indicated scale (not smaller than  $1/8" = 1'$ ), on sheets of uniform size (11" x 17" minimum), including a kitchen floor plan showing exits. Two sets are needed with the designers' wet signature on each page. **All fonts throughout the plans shall not be smaller than 1/8" font size.**

The following items must be included in the plans:

- Names of owner and occupant;
- Address of building, including assessor's block and lot number;
- Contractor's name, address, telephone number, and license number;
- Point of compass;
- Symbol list;
- Drawing showing kitchen layout, including exits, pantry and access to dining area; This should include hood, duct, plenum, and appliance dimensions; Indicate the actual surface dimension being protected as well as the size of the unit (e.g. 36" griddle with 30" x 24" cooking surface); All appliances must be locked in place; If the appliance is moveable for cleaning, permanent markers shall be installed to ensure that the appliance is returned to its proper design location.
- Location of all parts of the system:
  - Panels; Piping (size and length); Nozzles (type and distance to the appliance); Mechanical fuel shut-off devices; Agent storage container (type and size); Manual pull station and related cable (show installation height above floor); Detection devices and related cables; Type K portable fire extinguisher.
- Attach to the plans the manufacturers' specification sheets for all the above. Highlight all proposed parts (Use the same terminology on the plans as is in the design manual; i.e. range not stove or burner); all parts must be installed according to the manufacturers' specifications; all listed systems must be UL Standard 300.
- Pipe length calculations (both actual and equivalency); Indicate actual, maximum and minimum lengths of pipe and equivalent lengths; Show the actual and maximum vertical rise; Show branch line limitations;
- Flow point calculations;
- When the building has a fire alarm system, the hood suppression system shall be connected to the system (any activation shall be indicated by alarm status at the FACP);
- Alarm or indicator that shows system has activated;

## **GENERAL INFORMATION**

- A. The system shall be serviced at least every 6 (six) months and after system activation. Records shall be maintained per the 2022 CFC Section 606.3.3.1.
- B. Comply with section 606 of the 2022 CFC for cleaning and maintaining Type I Commercial Kitchen Hoods NOTE: Cleaning intervals have increased for systems that have a high volume of use and systems using solid fuels.
- C. Fusible links and sprinkler heads must be replaced as required by Section 904.13.5.3 of the 2022 CFC .

## **II. EXISTING DRY CHEMICAL SYSTEMS**

- A. 2022 CFC Section 904.13 requires all existing dry-chemical and wet chemical extinguishing systems comply with UL 300-2005 requirements. Systems that do not meet the UL 300 standard are not in compliance and shall be upgraded immediately.