



Fire & Life Safety Department

COMMERCIAL COOKING FIRE SUPPRESSION SYSTEM

These guidelines are to be followed when a business, facility or organization proposes to perform cooking operations that will involve grease-laden vapors.

This guideline identifies protection for cooking surfaces which include; deep fat fryers, griddles, upright broilers, char broilers, range tops and grills, open face ovens, salamanders, cheese melters, woks, open face pizza ovens, and other similar equipment.

PERFORMANCE AND INSTALLATION REQUIREMENTS

1. The piping shall be rigidly supported to prevent excessive movement and shall be protected from mechanical or other damage.
2. All systems shall meet UL 300.
3. Both a manual and automatic means of activation shall be provided. A minimum of one manual activation pull station shall be provided in the path of egress, and shall be located 42" to 48" above the floor. The manual actuation device shall be located a minimum of 10 ft. and a maximum of 20 ft. from the kitchen exhaust system.
4. Where multiple manual actuators are installed for protection of separate extinguishing systems, they shall be clearly identified as to the hood being protected.
5. The fire suppression system shall be interconnected to the building fire alarm system. Activation of the Kitchen Hood Fire Suppression System shall cause the fire alarm to activate throughout the building.
6. When a building fire alarm system is provided, activation of the fire suppression system shall transmit full addressable information in accordance with the Fire Alarm Operational Guidelines.
7. Activation of the fire suppression system shall automatically shut-off the fuel supply, ventilation controls if required, fans, and any other equipment necessary. Shut-off valves and switches shall be of the types that require a manual action to reset. Pilot flames must extinguish within 10 seconds of system activation.
8. A "K" Class fire extinguisher shall be installed at an approved location, and within 30 feet of commercial food heat-processing equipment, as measured along an unobstructed path of travel.
9. Pre-engineered fire suppression systems shall be installed only by companies and individuals licensed by the Texas State Fire Marshal's Office.
10. Welding inspection "Light Test" or "smoke test" shall be performed before the hood ducting is wrapped.

Installation of a hood fire suppression system shall not be performed until plans have been reviewed and returned to the contractor with comments. Any work performed prior to the issuance of this permit may result in reporting to the licensing division of the Texas State Fire Marshal's Office.

To expedite the plan review and inspection processes, please refer to the information listed below.

PERMIT PLAN SUBMITTAL REQUIREMENTS

1. A "Wet" FEL signature required for all non-pre-engineered systems.
2. Scope of Work.
3. Equipment List.
4. A floor plan shall be provided and shall indicate the location of the kitchen hood itself, electrical panel,

- manual pull station, K Class fire extinguisher and suppression system cabinet.
5. Plans shall indicate the interconnection to the building fire alarm system;
 6. Plans shall indicate the interconnection to the fuel supply shut-off and indicate the type of fuel supply.
 7. The title block shall contain the following:
 - a. Location of the installation.
 - b. Name and complete address of the business.
 - c. Name and complete address of the installing company.
 - d. Licensing information.
 - e. "Wet" signature, if required.
 8. A minimum of two (2) sets of plans shall be submitted. Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review. The following information shall be provided on the plans:
 - a. Indicate scale or acceptable dimensions.
 - b. Include manufacturer's data sheets.
 - c. Include hood dimensions.
 - d. Include duct perimeter.
 - e. Include appliance dimensions.
 - f. Include piping schematic.
 - g. Indicate nozzle type, direction and number.
 - h. Indicate the location and temperature of the fusible links.
 9. The plenum space within the hood and exhaust ducts shall be protected.
 10. A minimum of one drawing shall be provided in 3D/Isometric view of the hood, ductwork and protected appliances.
 11. Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information.
 12. Provide a copy of installing company's State of Texas State Fire Marshal's Office license.
 13. Provide a copy of installing company's insurance.
 14. Drawings shall be submitted for review and approval, PRIOR to installation.

Submittal package must identify and include all the above requirements to be accepted for review.

GENERAL SUBMITTAL REQUIREMENTS

1. Plans approved by the Fire & Life Safety Department give authorization for installation. Final approvals are subject to field verification. Any approval issued by the Fire & Life Safety Department does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances.
2. All installations shall comply with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire & Life Safety Department.

All commercial cooking operations for the purposes of this guideline and any other guidelines or requirements of the Fire & Life Safety Department shall conform to 2021 NFPA 17, 2021 NFPA 17A, 2021 NFPA 96, the 2021 International Fire Code, and/or 2021 NFPA 1 and 2021 NFPA 101.

SYSTEM ACCEPTANCE TESTING

1. Commercial Hood System shall be installed according to approved plans.
2. Texas FEL must be present for the testing.
3. Manual pull station shall be activated, and Fusible link shall be cut. Blow-by shall be provided on at least one testing method.
4. Gas (if applicable) and power shall trip upon system activation.
5. Pilot flame (if applicable) shall extinguish within 10 seconds of system activation.
6. Make up air shall cease flow upon system activation.