

**MCKINNEY FIRE DEPARTMENT
FIRE MARSHAL'S OFFICE**

COMMERCIAL COOKING HOOD 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, within the City of McKinney.

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 no more than 5 ft. 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. Distinctive audible and/or visual alarms shall be provided to indicate system operation and activation. Specifically, an audible/visual notification device shall be provided to indicate system operation, requiring personnel attention and system recharge.
6. 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.
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.
8. 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.
9. A sodium bicarbonate or potassium bicarbonate dry-chemical-type portable fire extinguisher having a minimum rating of 40-B 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. A "K" Class fire extinguisher will also be required.
10. Pre-engineered fire suppression systems shall be installed only by companies and individuals licensed by the State of Texas State Fire Marshal's Office.

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

PERMITTING REQUIREMENTS

11. A "Wet" FEL signature required for non-pre-engineered systems.
12. A minimum of three (3) 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.

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- 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.
13. The plenum space within the hood and exhaust ducts shall be protected.
 14. A minimum of one drawing shall be provided in 3D/Isometric view of the hood, ductwork and protected appliances.
 15. 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.
 16. Scope of Work.
 17. A minimum of one (1) set of specifications shall be provided. Manufacturer documentation for all parts and materials used in the project.
 18. Equipment List.
 19. Plans shall indicate the interconnection to the building fire alarm system;
 20. Plans shall indicate the interconnection to the fuel supply shut-off and indicate the type of fuel supply.
 21. 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.
 22. Provide a copy of your State of Texas State Fire Marshal's Office license.
 23. Drawings shall be submitted for review and approval, PRIOR to installation.
 24. Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information.
 25. Submittal package must identify and include all the above requirements to be accepted for review.
 26. No hood suppression systems shall be installed on the site until a Permit has been issued. Any work performed prior to the issuance of this permit may result in a citation being issued for violation of Section 113.3 of the 2015 International Fire Code.

GENERAL SUBMITTAL REQUIREMENTS

27. Each submittal shall have a completed McKinney Fire Department Plan Review Permit Application.
28. Plans approved by the Fire Marshal's Office give authorization for installation. Final approvals are subject to field verification. Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances.
29. All fire department inspection forms and permits shall be kept on the job site until final inspection.
30. All installations shall comply with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.

All commercial cooking operations for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to NFPA 17, NFPA 17A, and the 2015 International Fire Code, as adopted and amended by City of McKinney.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of McKinney, or determinations and positions of the Fire Chief or Fire Marshal.