



Murphy Fire-Rescue/Fire Marshal Office

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Automatic Extinguishing System

Commercial Hood Suppression

Effective Date: 8/1/13

Summary: Fire Department requirements for a permit issuance and safe operation of an automatic extinguishing 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 Murphy.

This guideline identifies protection for cooking surfaces which include; deep fat fryers, griddles, upright broilers, charbroilers, range tops and grills, open face ovens, salamanders, cheese melters, woks, open face pizza ovens, and other similar equipment. The plenum space within the hood, above the filters, and exhaust ducts servicing the hood shall also be protected.

All commercial cooking operations for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2006 International Fire Code, as adopted and amended by City of Murphy Ordinance No. 09-03-789, NFPA 17 and NFPA 17A.

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

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 the five feet above the floor. The manual actuation device shall be located a minimum of 10 feet and a maximum of 20 feet 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.

Submittal Requirements

- 11) The plans will be reviewed based on the requirements in the International Fire Code, 2006 Edition and NFPA 17A.
- 12) A "Wet" FEL signature. Required for non pre-engineered systems only. (See Back)

- 13) 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) Indicated scale or suitable 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.
- 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.
- 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) All contractors are required to be registered with the City of Murphy prior to release of the permit.

General Requirements

- 24) Installation, fabrication or otherwise construction of the system is prohibited without approved plans and permit.
- 25) Each submittal shall have a completed Murphy Fire Department Plan Review/Permit Application.
- 26) Plans approved by the Fire Marshal's Office give authorization for construction. 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 relating to the construction project.
- 27) All installations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.
- 28) All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection.