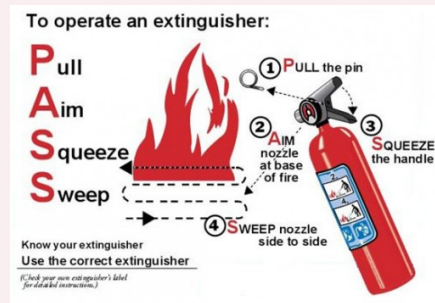


### Introduction

Commercial cooking operations present a significant fire risk to a property owner for property loss because of the availability of ignition sources (e.g. burners) and a high fuel-load (e.g. fats and grease). The following information can assist in assessing the fire exposures of commercial cooking operations.

### Top 10 Commercial Kitchen Fire Issues

### Fire Extinguisher



### Checklist

- ☐ Are cooking appliances, such as ranges, deep fat fryers, and steamers, installed in compliance with NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, published by the National Fire Protection Association (NFPA)?
- ☐ Is kitchen equipment inspected on a regular basis? (i.e., quarterly for high-volume cooking operations, semiannually for moderate--volume cooking operations, and annually for low-volume cooking operations.)
- ☐ In addition to other kitchen equipment inspections, are solid fuel cooking appliances inspected at least monthly?
- ☐ Are hoods and ducts for collecting cooking vapors and residues constructed of steel or equivalent material, and equipped with easily accessible and removable noncombustible grease filters?
- ☐ Are trash containers made from non-combustible materials and equipped with a self-closing lid when the capacity exceeds 20 gallons?
- ☐ Are hoods and ducts vented to the exterior of the building, and provided with an accessible opening for inspection and cleaning?
- ☐ Are grease traps located under filters and pitched to drain into a metal container?
- ☐ Are cooking appliances installed with adequate clearance to prevent overheating of adjacent surfaces?
- ☐ Are deep-fat fryers installed with at least a 16-in. (4.06 cm) space between the fryer and surface flames of adjacent cooking equipment?
- ☐ Are deep-fat fryers equipped with automatic fuel cutoff valves?
- ☐ Are racks, trays, spacers, or containers placed inside ovens made of noncombustible materials that can be easily cleaned?
- ☐ Is solid-fuel cooking equipment, other than equipment of solid masonry or refractory concrete, protected by a water-based fire extinguishment system?
- ☐ Are class K fire extinguishers provided within 10 ft (3.05 m) of any cooking equipment?
- ☐ Are employees trained in the safe operation of cooking equipment, including combustion of fuel-air mixtures; explosion hazards; sources of ignition; and functions of control and devices?
- ☐ Are operating instructions for cooking equipment readily accessible?
- ☐ Are control valves for gas service readily accessible and in good working condition

**1) The system is not UL300 Listed.** A common cause for this is the presence of a dry chemical extinguishing system. With the widespread transition from animal fat to vegetable oil use in deep fat fryers, dry chemical systems are no longer able to control the higher temperature, longer burning fires produced by vegetable oils. A UL300 Listed system is specifically designed to handle these intense fires, contain them longer, and prevent splashing of hot oil during the fire.

**2) Nozzle covers missing.** When the nozzles of an extinguishing system are not kept covered, airborne grease can clog the hole. This may impede or prevent operation of the extinguishing system.

**3) Nozzles not aimed properly.** If a nozzle is not properly aimed to deposit the extinguishing chemicals on the source of the fire, it will be less effective.

**4) Combustible construction within 18 inches of hood not protected with mineral wool pad (or equivalent).** Combustible materials within 18 inches of the kitchen hood may aid in the spread of fire. Incombustible materials provide a barrier that creates a break in the fire's path.

**5) Filter panels installed wrong.** Filter panels are specifically designed to collect grease. If they aren't properly installed, the amount of grease they are able to collect may be reduced causing more accumulation on the hood.

**6) Hood or suppression system does not cover all appliances.** If a fire occurs in or on an appliance that is not covered by the hood or suppression system, it cannot be adequately controlled by the system.

**7) Inadequate cleaning cycle.** Hood and vent systems that are not kept clean can accumulate grease and pose a serious threat of fire. Adequate cleaning schedules vary greatly from one kitchen to the next. A full service restaurant using multiple fryers or woks may need to be cleaned monthly, while a low-volume kitchen like that in a daycare or senior center only requires cleaning annually.

**8) Lights not covered with explosion-proof covers.** Explosion-proof lights are generally required in applications involving high heat or high risk of fire or explosion.

**9) Fire suppression system tags out of date.** When a kitchen suppression system is serviced, a tag should be left by the servicing company indicating the service date. An out-of-date tag indicates that the system is not being serviced regularly.

**10) No, or inadequate, separation between open flame appliances and fryers.** Without adequate separation, oil can splash or splatter into open flames, causing a fire risk. Suitable separation can be achieved by either providing 16 inches between the appliances or a 16 inch vertical, non-combustible (metal) divider.



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