



Requirements Regarding Commercial Deep Fat Fryers, Portable Fire Extinguishers and Range Hoods

The City of Roanoke Fire-EMS Department has prepared the following information regarding the hazard presented when vegetable oils are used as a frying medium in commercial cooking operations.

WARNING: YOUR PRESENT FIRE EXTINGUISHING EQUIPMENT MAY NOT PUT OUT A FIRE INVOLVING VEGETABLE OIL IN YOUR DEEP FAT FRYER!

Until recently, most commercial deep fat fryers and the range hoods and portable fire extinguishers in commercial kitchens were designed for use with animal-fat based oils and grease. Due to a number of factors, the cooking industry has switched to use of vegetable-based oils and greases. These vegetable-based frying mediums cook at a higher temperature than the equivalent animal-fat based products. Once a fire starts in a deep fat fryer using this new frying medium it cannot be extinguished by traditional range hoods or portable extinguishers using Class B extinguishing agents. Only newer, Class K extinguishing products or UL300 listed range hoods will put out a fire involving vegetable oil frying mediums in deep fat fryers.

Fires in the City of Roanoke and throughout the country have resulted in code changes to address this problem. Many businesses have already upgraded their cooking fire protection equipment by converting to UL300 listed range hoods and portable Class K extinguishers.

Portable Extinguisher Requirements

The International Fire Code requires that all commercial cooking operations using vegetable oils as a frying medium in deep fat fryers install a Class K fire extinguisher. The Code requires the following:

Portable extinguishers for vegetable oils.

A portable fire extinguisher that is listed and labeled for Class K fires shall be installed within 30 feet of commercial deep fat fryers where vegetable oils are used as a frying medium. An unobstructed path of travel to the extinguisher must be maintained. A placard shall be conspicuously placed near the extinguisher that reads: The fire protection system shall be activated prior to using the fire extinguisher. (Note: This placard should be supplied with purchase of your Class K extinguisher, or you can make one.) If you deep fry with vegetable oils, please take immediate steps to obtain a Class K fire extinguisher.

Replacing Fire Extinguishers

You may currently have an extinguisher that provides protection for more than one category of fire. The basic categories are:

- Class A – Ordinary combustibles, such as wood, paper or cloth.
- Class B – Flammable Liquids other than vegetable oil.
- Class C – Electrical.
- Class K – Fires involving vegetable oil products.

Commercial deep fat cooking operations using vegetable oils as a frying medium must now have a K rated portable extinguisher. This requirement is in addition to the existing requirement for a restaurant to have a fire extinguisher with a rating of at least 2A to provide protection for fires involving ordinary combustibles.

You may want to consider purchasing a Class K extinguisher that also has a 2A rating. If you can locate your Class 2A-K extinguisher within 30 feet of the deep fat fryer, AND, within 75 feet of all parts of the restaurant, AND the restaurant is no larger than 3000 square feet, you can satisfy all requirements with the one extinguisher. The extinguisher you purchase may also carry a Class B and Class C rating, but it must be rated at a minimum of Class 2A and Class K to allow you to consolidate into one extinguisher to meeting both requirements safety requirements.

DO NOT ATTEMPT TO USE A CLASS A EXTINGUISHER CONTAINING WATER ON A DEEP FAT FRYER FIRE. THIS MAY RESULT IN AN EXPLOSIVE TYPE REACTION.

Information about Class K portable extinguishers and UL 300 range hoods is available from various sources. You may wish to contact the Fire Marshal Office, testing company or individual, who tests your portable fire extinguishers and range hoods. Or consult the yellow pages directory under the headings of *Fire Protection Equipment & Supplies* or *Fire Extinguishers*.

Industrial Scale Commercial Cooking

For cooking operations larger than a restaurant style deep fat fryer, contact the Fire Marshal Office at 540-853-2795.