

## Your Direct Link to Better Risk Management Practices

### Ask the Expert

In each publication of Risk Review, an outside guest or a member of our team of expert risk management and loss prevention consultants will answer a question from a reader. If you are concerned about a risk management or safety issue at your practice or facility, let us know and we may answer it in a future issue.

Alex Olimpo, Princeton Insurance Loss Prevention Consultant

### Protecting your facility

**Q: What can I do to make sure the correct fire protection system is installed so if a kitchen fire occurs, it will be properly extinguished?**

A: The kitchen is an area that can easily be overlooked in a healthcare facility when ensuring proper safety procedures and protocol are in place. I'm going to answer this question in two parts. In the first, I will discuss basic methods for preventing kitchen fires, and in the second, I will go over the Underwriters Laboratories, Inc. standard relating to fire extinguishing systems for cooking areas (UL300).

### Basic cooking fire safety practices

The simplest way to prevent a cooking fire is to never leave the cooking area unattended while items are cooking. Personnel must stay alert and constantly monitor the cooking area. In addition, the following items must be kept in good working condition:

- Cooking Equipment
- Exhaust Hoods, Ducts, and Fans
- Fire-Extinguishing Systems

A good way to tell if your cooking equipment is safe is by checking around the cooking area. Remove any buildup of grease or debris on the cooking surfaces. Do not leave any oven mitts or pot holders unattended by an open flame. Make sure all the food packaging materials are placed in the trash container once the food is open and not placed near the cooking equipment. Inspect pots and pans for breakage or damaged han-

**Vice President of  
Healthcare Risk Services**  
Tom Snyder x852

**Manager, Healthcare Risk Services**  
Phyllis DeCola x897

**Manager, Risk Services**  
Francis Roth x868

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dles and discard any broken items.

The exhaust hood system should be serviced by a licensed professional every six months. This servicing should include the cleaning and removal of grease and debris in the hood system, duct work, and fan system, etc.

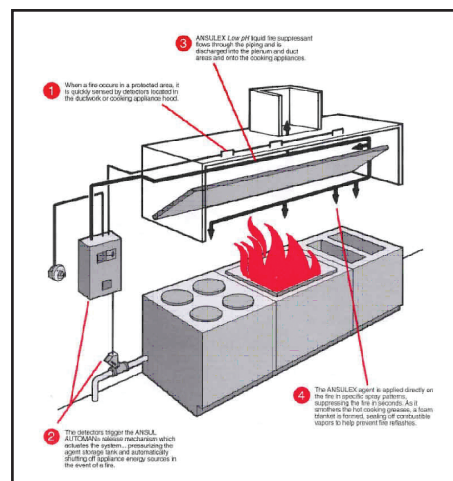
The filters should be cleaned as often as needed to remove the buildup of grease and debris. It is common practice to remove the filters twice a month to be cleaned. In large kitchen settings, personnel manually remove the filters and clean the large debris from the filters. Afterward the filters are then run through the dishwashing equipment for sterilization and removal of additional particles and debris. Once the filters have been cleaned by the dishwashing equipment and thoroughly dried, they are then replaced into the hood system.

The fixed system is the primary fire extinguisher system, which is mounted in the duct work of the exhaust hood and also has nozzles pointed directly over the cooking equipment. Currently the most commonly found fixed system is a UL300 system.

Class K fire extinguishers are used as the secondary fire extinguishing appliance as a backup for the primary system.

### What is the UL300 fire protection system?

UL300 is a standard developed by the Underwriters Laboratories, Inc. The standard applies to fire extinguishing systems for protection of cooking areas. It became effective on November 21, 1994.



The UL300 standard was introduced because many kitchens, restaurants, cooking establishments, etc., stopped using animal-based cooking oils and started using oils that are vegetable-based. These types of oils are normally used in deep fat fryers. The vegetable-based cooking oils have a higher temperature for cooking. Thus, if a fire were to occur with vegetable-based cooking

oils, the fire would be more intense and harder to put out, and the old, dry chemical fire extinguishing system is not effective in putting out a vegetable-based cooking oil fire.

A UL300 fire protection system uses a wet chemical fire extinguishing

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agent. When a cooking fire occurs and the fire extinguishing system is activated, the wet chemical is discharged onto the flaming surface to produce a foam blanket on top of the fire. The foam blanket in turn smothers the fire and eventually puts out the fire.

This standard applies to your facility whenever changes are made to the original installation of cooking appliances and the hood/ducts within the protected area. Also, when vegetable-based cooking oil appliances are introduced in the kitchen area or the facility changes from using animal-based cooking oil to vegetable-based cooking oil, you must comply with this standard.

### The Class K fire extinguisher

A Class K fire extinguisher is designed to put out fires caused by cooking appliances that use animal or vegetable-based cooking oils and fats.

The fixed system – the primary fire extinguishing system – should activate automatically when a fire occurs in the cooking surface area. The Class K fire extinguisher will not operate by itself. Facility personnel must be present in order for this system to operate.

Class K fire extinguishers operate just like any other portable fire extinguisher. Remember the word **PASS**:

- Pull the pin. Hold the extinguisher wand/nozzle pointing away from you, and release the locking mechanism.
- Aim Low. Point the extinguisher at the base of the fire.
- Squeeze the lever slowly and evenly.
- Sweep the wand/nozzle from side-to-side.



Like other portable fire extinguishers, a Class K fire extinguisher needs to be serviced by a licensed professional once a year. Also, regular inspection of the fire extinguishers should occur each month by facility personnel.



### Sources of Information

#### **AAA Fire and Safety, Inc.**

“About UL 300 Systems”

“Local Fire Departments Now Require Upgrade to UL300 Standard”

[www.aaafire.com](http://www.aaafire.com)

#### **Healthcare Life Safety Compliance**

“Extinguisher Upkeep Involves Frequent Assessments – May 2006”

“Tips on Selecting Fire Extinguishers for Specialized Healthcare Settings – June 2006”

“Facilities Must Perform ‘Quick Checks’ of Wet Chemical Systems in Kitchens – July 2006”

“Have Class K Extinguishers Handy for Griddles and Fryers – August 2006”

[www.hcpro.com](http://www.hcpro.com)

#### **National Fire Prevention Association**

“National Fire Prevention Week – Preventing Cooking Fires Watch What You Heat”

“NFPA 10, Standard for Portable Fire Extinguishers”

“NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations”

[www.nfpa.org](http://www.nfpa.org)

#### **Princeton Insurance Companies**

“Choosing a Fire Extinguisher”

May 31, 2003❖

**Questions and/or  
suggestions are welcome.  
Call the Risk Management  
Department at  
1-866-RX4-RISK**