

A chef in a white uniform is cooking in a kitchen. A large, intense fire is burning in a pan on the stove, with bright yellow and orange flames rising. The background is slightly blurred, showing other kitchen elements.

The Restaurant Owner's
COMPLETE
FIRE PROTECTION
GUIDE

If you're like most restaurant owners, your establishment is more than a business – **it's your passion.**

But while you're focused on serving amazing food and providing a remarkable customer experience, you may forget that fires are more likely to occur in a restaurant than almost any other kind of business.

An estimated 5,600 restaurant fires are reported each year resulting in 11 injuries per 1,000 fires and an average of \$23,000 in loss per fire.

There are many different types of restaurants, from chains and fast food to small, family-owned restaurants. But no matter the type, each restaurant poses significant fire risks.



RESTAURANT FIRES BY CAUSE 2011-2013

Source: U.S. Fire Administration

- Cooking – **63.5%**
- Other fires – **22.6%**
- Heating – **7.4%**
- Electrical malfunction – **6.5%**

This guide provides the information you need to protect your staff, your customers, and your livelihood from the damages of fire.



START WITH AN AUTOMATIC FIRE SUPPRESSION SYSTEM

Restaurant suppression systems are vitally important to the everyday safety of your business.

RESTAURANT FIRE SUPPRESSION SYSTEM REQUIREMENTS

In 1994, Underwriter Laboratories released “Fire Testing of Fire Extinguishing Systems for Protection of Restaurant Cooking Areas;” also known as UL 300. The standard outlines specific guidelines that system manufacturer’s equipment must meet in order for a restaurant suppression system to receive a UL 300 label. Each system manufacturer must submit their system to Underwriters Laboratories for testing which includes real world fire testing on actual commercial cooking equipment used in today’s restaurants.

Systems that meet the UL 300 standard are significantly more effective at controlling kitchen fires than systems designed to meet previous standards.

As of 2014, standards written by the National Fire Protection Association (NFPA), and adopted by most states as a part of their fire code, require all kitchen systems must be UL 300-compliant. Additionally, most insurance companies require compliance with this standard as a prerequisite to provide coverage.

THE EVOLVING FIRE RISKS IN COMMERCIAL KITCHENS

The fire hazards in your kitchen today are significantly different than they were twenty years ago. Before UL 300, most commercial cooking involved animal fat. Deep fryers were poorly insulated which made cooking temperatures inconsistent. The extinguishing systems which protected those kitchens would have often been a dry-chemical type that would provide little or no cooling.

Today, deep fryers have excellent heat retention and are well-insulated. Restaurants today also typically use vegetable oils for cooking, not animal fats. But that means that dry chemical and older wet chemical systems are no longer capable of extinguishing and/or sustaining that extinguishment. The lack of cooling associated with dry chemical and the lesser amounts of wet chemical used in non-UL300 systems were found to lead to a high occurrence of extinguishment failure or re-ignition sometimes resulting in catastrophic losses.

So, unless you have a UL 300-compliant suppression system, chances are that your restaurant is not as protected as you may think it is. The cooking equipment and methods we use today simply make non-UL 300 suppression systems obsolete.

UL 300-COMPLIANT SUPPRESSION SYSTEMS MUST INCLUDE:

- Wet chemical extinguishing agent
- Nozzles located in the hood & duct
- Nozzles located over each grease-generating cooking appliance
- Manual pull station
- Automatic fire detection system
- Automatic fuel shut-offs for gas and electric
- Hood and duct maintenance and cleaning semi-annually by an authorized licensed service company
- Wet chemical system serviced semi-annually by an authorized licensed service company.

MAKE REGULAR MAINTENANCE A TOP PRIORITY

Of the thousands of restaurant fires reported each year, failure to clean is a factor in 21%. That means that, in over 20% of cases, restaurant fires could have been prevented through the simple act of regular maintenance of kitchen equipment. You wouldn't cook and serve food from dirty kitchen counters—so don't endanger your staff, your customers, and your restaurant itself by failing to schedule regular cleaning of your cooking equipment.

Proper maintenance also extends to your fire suppression systems. You need to schedule semi-annual maintenance and service of the system by an authorized, licensed service company. This is the only reliable way to ensure that your fire suppression system is in peak operating condition and will perform as intended when you need it most.

NATIONAL FIRE PROTECTION ASSOCIATION EXHAUST SYSTEM INSPECTION SCHEDULE

HIGH-VOLUME RESTAURANTS	Quarterly Inspection
MODERATE-VOLUME RESTAURANTS	Semi-Annual Inspection
SOLID-FUEL COOKING EQUIPMENT (WOOD/COAL OVENS)	Monthly Inspection



KNOW AND USE BEST PRACTICES FOR FIRE PREVENTION

There are common-sense ways to help prevent fires from breaking out in your restaurant. Follow these best practices and train your staff to be diligent about following these procedures.

CLEAN UP THE GREASE

Empty all grease containers at least once a day, and be sure the grease is properly scrubbed away from:

- Exhaust hoods
- Walls
- Work surfaces
- Ranges
- Fryers
- Broilers
- Grill
- Convection ovens
- Vents
- Filters

USE PROPER STORAGE TECHNIQUES

Store any flammable liquids in their original containers or puncture-resistant, tightly-sealed containers. Store the containers in a well-ventilated area away from supplies, food, or any source of flames.

INSTALL ALL EQUIPMENT PROPERLY

Kitchen appliances operated too closely to adjacent surfaces are at risk for overheating and causing a fire. Check your local kitchen inspection requirements for a better understanding of how far each kind of appliance should sit from walls, cabinets, and other appliances. You can also see if walls neighboring appliances like ovens and fryers need to be treated with specific fire-proofing materials.

CREATE AN END-OF-NIGHT CHECKLIST

Most establishments already have a procedure for closing the restaurant at the end of the day. Ensure that your list has a focus on fire prevention by including even basic tasks such as shutting off all appliances and making sure the premises is secure.

WEAR APPROPRIATE CLOTHING

Again, most kitchen staff are probably familiar with this basic safety rule, but take extra care to ensure that sleeves are rolled up, hair is tied back, and aprons are worn to keep clothing away from open flames.





GIVE YOUR EMPLOYEES THE TRAINING THEY NEED

The unfortunate truth is that most people, including your kitchen staff, have not been trained to respond properly to a fire. Only with hands-on experience can employees be trained to act quickly when faced with an actual fire in the workplace.

OPERATION OF THE RESTAURANT'S FIRE SUPPRESSION SYSTEM

Often, restaurant owners will tell their staff not to touch the fire suppression system. The thinking seems to be that releasing the fire suppression agent will cause a huge mess that will lead to downtime and loss of revenue. Often, staff is not even told where the manual release(s) are.

Employees need to be aware of all of the safety features of the kitchen and the restaurant in general, and empowered to use them in an emergency.

OPERATION OF A PORTABLE FIRE EXTINGUISHER

The many cooking hazards in today's kitchens mean that a fire could break out at any time. In over 60% of restaurant fires, the fire is limited to the object or origin, causing less damage than if the flames were to spread. You can help keep this the case by providing proper fire extinguisher training. Fire extinguisher training familiarizes your staff with all of the risks and responsibilities of incipient-stage fire-fighting, and allows them to discharge a real fire extinguisher in a controlled environment. Live training should be written into your fire safety plan.

OPERATION, SHUTDOWN AND CLEANING OF ALL COOKING APPLIANCES

It may be a given that a professional kitchen staff should understand how each piece of cooking equipment works, but appliances can differ from restaurant to restaurant. Be sure that your employees understand exactly how each piece of equipment functions, including proper cleaning procedures.

SAFETY PROCEDURES AND EXPECTATIONS

Your team members need to understand your establishment's expectations for reporting a fire or other emergency situation. While you certainly won't require your employees to fight an incipient-stage fire if they don't feel comfortable doing so, they should be expected to alert the rest of the building occupants to the danger.

Your fire safety plan should include regularly familiarizing your employees with the company's fire reporting policies, including:

- Shouting "fire!"
- Pulling building fire alarms (even if the alarms are monitored)
- Opening alarmed emergency doors
- Calling 9-1-1



TAKE THE FIRST STEP

to Protect Your
Restaurant from Fire

[REQUEST A HAZARD ASSESSMENT](#)



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