

# Busting the UL 300 Money Myth



Four Reasons You Can't Wait to Upgrade  
to a UL 300 Fire Suppression System

## Introduction

Accidents happen, even in the most well-kept and well-run restaurants.

Are you doing everything you can to protect from fire the lives of you, your employees, your customers and the future of your business? A UL 300 fire suppression system won't help you prevent a fire, but it can help you minimize the impact of a fire.

### WHAT IS UL 300?

In November of 1994, Underwriters Laboratories introduced the UL 300 Standard for Testing of Fire Extinguishing Systems for the Protection of Restaurant Cooking Surfaces.

The new standard was in direct response to changes taking place in the restaurant environment; changes in cooking styles, processes and equipment that, when combined, resulted in restaurant fires that had become increasingly difficult to contain and suppress. Here's why:

- Vegetable oil fires are more difficult to suppress. Over the years, the use of animal fats (lard) for frying foods has given way to the use of vegetable oils that help lower the fat and cholesterol content of food. Vegetable oil burns at a higher temperature than animal fats and creates fryer fires that are more difficult to suppress.
- Modern cooking appliances add to the challenge. Today's highly efficient appliances help reduce fuel consumption and improve cooking times by maintaining a constant cooking temperature. But they also keep cooking oils and metal hotter, making suppressing a fire more difficult.

The UL 300 standard addresses the heightened risk posed by these kitchen innovations and is significantly more effective in controlling kitchen fires than systems designed to meet previous standards. Still, since its introduction in 1994, there remains inconsistent adoption of fire systems that meet the UL 300 testing standard.

*A UL 300 system won't help you prevent a fire, but it can help you minimize the impact of a kitchen fire.*

## UL 300 ADOPTION

Today, most states in the U.S. mandate that newly installed restaurant fire suppression systems are UL 300 listed. But when it comes to existing installations, the map shown below illustrates a patchwork of regulations that, understandably, has led to confusion in the industry.

- **Blue States:** These six states require UL 300 in all restaurants by a designated date.
  - **Green States:** These 35 states require replacement of non-UL 300 systems when changes in the cooking media, positioning or replacement of cooking equipment occur (NFPA 96) (IFC), or if the existing system cannot be maintained.
  - **Gray States:** These nine states have no statewide mandate. Compliance is handled at a local level where authorities having jurisdiction (AHJs) vary and where compliance details are sometimes misunderstood or ignored.



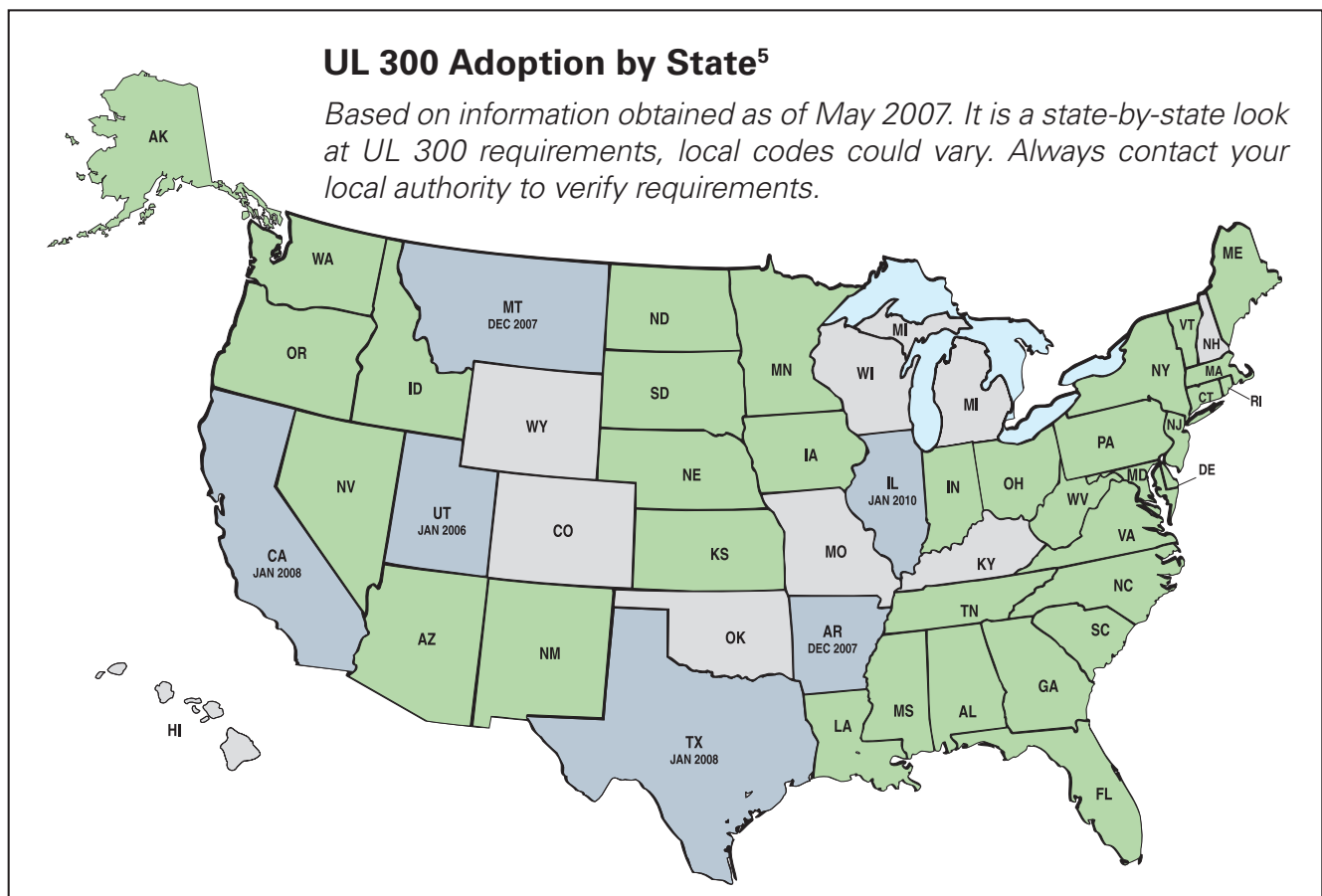
**According to the U.S. Fire Administration:**

An average of 5,900 restaurant fires happen in the U.S. each year.<sup>1</sup>

Cooking is the leading cause of more than half of all restaurant fires.<sup>2</sup>

Restaurant fires result in an average loss to building and assets of \$25,790.<sup>3</sup>

While none of the incidents reported in the U.S. between 2007 and 2009 resulted in fire deaths, 75 injuries were reported.<sup>4</sup>



In the absence of a uniform set of mandates, restaurant owners often make the choice to upgrade to UL 300 based solely on cost. It's understandable; in an industry where profit margins are already thin, every dollar counts.

Yet those who think it's too expensive to upgrade to UL 300 haven't considered all the ways in which failure to act can have a negative – even catastrophic – personal and financial impact. This white paper is designed to help restaurant owners understand what's at stake as we share four reasons you can't wait to upgrade.

### REASON #1: UL 300 WILL HELP YOU PROTECT PEOPLE AND PROPERTY.

Fire suppression systems are designed to minimize the impact of a kitchen fire; knock it down quickly, keep it contained and lower its temperature so that people are less likely to be hurt and businesses are less likely to be destroyed.

Achieving that goal, however, has become increasingly challenging in today's modern restaurant kitchens. Highly insulated appliances and the use of vegetable oil combine to create a fire risk that didn't previously exist; one that can't be adequately contained by prior generations of fire suppression systems.

That's why Underwriter Laboratories issued its new UL 300 standard in 1994. Industry experts advised that when fire broke out in an energy-efficient fryer using vegetable oil, it took up to *six times* the amount of fire suppressing agent to bring it under control, compared to what would have been required to control a fire involving an older style appliance using animal fat. Here's what that means for an owner today whose restaurant is equipped with modern, energy-efficient fryers using vegetable oil, **but who hasn't upgraded** to a UL 300 system. In the event of a fryer fire, your current fire suppression system is capable of delivering approximately 1/6 of what is generally needed to contain the fire.

Think about the impact that could have on the lives of the people who've helped you build your business: you, your kitchen staff, wait staff and customers. What about the people who live or work in adjacent buildings or floors?

Even if you choose to continue with an obsolete fire suppression system, pre-UL 300 systems are becoming more difficult and riskier to maintain. System manufacturers and responsible service companies no longer support them with parts, service or recharge. Third-party parts are sometimes available, but are not always reliable.

Can you afford the risk?

## REASON #2: UL 300 WILL HELP YOU PROTECT YOUR REVENUE STREAM.

A UL 300 fire suppression system won't prevent a restaurant kitchen fire. But if fire strikes, a UL 300 system will help minimize the damage, which can have ripple effects far beyond the initial incident.

Have you thought about all the ways in which your revenue stream would be jeopardized if you were forced to recover from a significant fire? Beyond the immediate loss of customer revenue, a lengthy closure can impact:

- **Monthly Expenses:** Unless you have business-interruption insurance, you'll need to continue to pay for expenses such as real-estate taxes, rent, salaries for key employees and any other monthly fees that must be paid regardless of whether the restaurant is open for business.
- **Customer Loyalty:** While they're waiting for you to reopen, will your regulars stay loyal or will they find a new favorite spot for Friday night family pizza?
- **Your Reputation:** News travels fast these days. Could your business survive a flurry of social media activity suggesting you don't take customer safety seriously?
- **Employee Retention:** If a fire forced your restaurant to be closed for a significant length of time, your employees may not be willing or able to wait for its reopening.

*Today's highly efficient appliances and the use of vegetable oil combine to create a fire risk that didn't previously exist.*

## REASON #3: UL 300 WILL HELP YOU PROTECT YOUR ABILITY TO BE INSURED AT A REASONABLE COST.

Most standard-market insurance companies today require restaurants to have a UL 300 fire suppression system in place, regardless of whether the upgrade is required by state or local authorities.

As a result, restaurant owners who are not UL 300 compliant are increasingly forced to obtain insurance on what's called the Excess and Surplus (E&S) market. E&S insurers work with high-risk customers who fail to meet eligibility requirements set by standard insurers. E&S companies provide insurance coverage, but at a cost; premiums can be 30 to 300 percent higher than those charged by standard-market insurers.

Could you absorb the additional cost? According to a report by the National Restaurant Association, pre-tax profit margins for full-service restaurants typically range between two and six percent.<sup>6</sup> A drastic increase in insurance premiums could put profitability at risk.

### REASON #4: UL 300 WILL HELP PROTECT YOU FROM LOSING EVERYTHING THROUGH LITIGATION.

From insurance companies to manufacturers, service companies to AHJs, there is mounting pressure on restaurants to comply with the UL 300 standard. And, if one related court ruling is any indication, failure to do so may put everything at risk.

The case involved a Massachusetts restaurant owner who ignored – for five years – repeated warnings to convert his outdated, dry chemical fire suppression system to a modern wet chemical system. The sequence of events was as follows, according to a report on the Fire Suppression Systems Association (FSSA) web site<sup>7</sup>:

- 2000 – The dry chemical system manufacturer sent a bulletin to the restaurant owner recommending an upgrade to a wet chemical system and announced a phase-out of manufacturer parts and support for the dry chemical system.
- 2002 – The restaurant's previous property casualty insurer declined to renew the policy because no wet chemical system had been installed.
- 2002 – The system manufacturer sent notice that the dry chemical system would no longer be supported for service, repair or recharge.
- 2003 – A fire systems service company notified the restaurant that the dry chemical system did not comply with NFPA 96 (as required in Massachusetts) and was not in accordance with the manufacturer's UL listing for the system. A replacement cost of \$3,250 was quoted for a new system.
- 2004 – The restaurant's dry chemical system was "red-tagged" by the service company.
- 2005 – A city building inspector advised the restaurant owner that the red-tagged dry chemical system failed to meet building code requirements and, without an upgrade, the restaurant owner could not renew the licenses needed to continue operations.
- 2005 – A fire broke out and destroyed the restaurant. The dry chemical system failed to function properly and the insurance company denied coverage.

According to the FSSA report, the case was decided in the Massachusetts Appeals Court in April 2011, which ruled that the restaurant's failure to install and maintain a UL 300, wet chemical fire suppression system justified the denial of coverage. The insurance policy was voided. The restaurant owner lost everything.



### YOU CAN'T AFFORD TO WAIT

How much does it cost to upgrade to a UL 300 fire suppression system? The investment varies, depending on factors such as:

- The age of the equipment that's being replaced
- The size of your kitchen and hood
- The condition of connecting pipes, etc.
- Labor costs in your location

If you haven't already made the decision to upgrade, get an estimate. The cost will undoubtedly pale in comparison to the value of a life lost or business destroyed. And, by taking steps to minimize the impact of a fire, you'll be contributing to a promising industry trend: Restaurants are safer today than they have been in years. In the U.S. from 2000 to 2004, the U.S. Fire Administration reported 3 deaths and 113 injuries as a result of restaurant fires. From 2007 to 2009, the most recent period for which statistics are available, those numbers dropped to zero deaths and 73 injuries.<sup>8</sup>

While a UL 300 fire suppression system won't prevent a fire from occurring, it can help to minimize the impact of fire so you can better protect the lives of your employees, your customers and the future of your business.

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<sup>1</sup> U.S. Fire Administration (USFA) Topical Fire Report Series, Volume 12, Issue 1, Restaurant Building Fires, April 2011, pg. 1.

<sup>2</sup> U.S. Fire Administration (USFA) Topical Fire Report Series, Volume 12, Issue 1, Restaurant Building Fires, April 2011, pg. 1.

<sup>3</sup> U.S. Fire Administration (USFA) Topical Fire Report Series, Volume 12, Issue 1, Restaurant Building Fires, April 2011, pg. 2.

<sup>4</sup> U.S. Fire Administration (USFA) Topical Fire Report Series, Volume 12, Issue 1, Restaurant Building Fires, April 2011, pg. 2.

<sup>5</sup> Internal study conducted May 1, 2007 based on publicly available information. For more details, contact Sheryl Lemire at [sheryl.lemire@jci.com](mailto:sheryl.lemire@jci.com).

<sup>6</sup> National Restaurant Association, 2010 Restaurant Operations Report summary, retrieved November 26, 2012 from <http://www.restaurant.org/pressroom/pressrelease/?id=1971>

<sup>7</sup> Fire Suppression System Association, retrieved November 26, 2012 from <http://www.fssa.net/displaycommon.cfm?an=1&subarticlenbr=152>.

<sup>8</sup> U.S. Fire Administration (USFA) Topical Fire Report Series, Volume 12, Issue 1, Restaurant Building Fires, April 2011, pg. 2.

