

## **Loss Control FYI**

### **What Fire Protection Code Covers Commercial Kitchens**

#### **You May Have Heard The Name National Fire Protection Association or NFPA, But What Is It:**

The National Fire Protection Association (NFPA) is an international nonprofit organization established in 1896. The company's mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education. NFPA is the world's leading advocate of fire prevention and an authoritative source on public safety. NFPA develops regulatory standards that are not law in themselves but when adopted by an "authority having jurisdiction" such as a state, municipality, or OSHA, gain the weight of the law.

#### **Codes and Standards**

NFPA publishes 300 codes and standards that are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation in the United States, as well as many other countries. What is a code and what is a standard?

- A **code** is a model, a set of rules that knowledgeable people recommend for others to follow. It is not a law, but can be adopted into law.
- A **standard** tends to be a more detailed elaboration, the nuts and bolts of meeting a code.

One way of looking at the differences between codes and standards is that a code tells you "**what you need to do**", and a standard tells you "**how to do it**". A code may say that a building must have a fire-alarm system. The standard will spell out what kind of system and how it must work.

#### **So What Code / Standard Deals With Commercial Kitchens:**

NFPA 96 "**Ventilation Control and Fire Protection of Commercial Cooking Operations**" provides preventive and operative fire safety requirements intended to reduce the potential fire hazard of both public and private commercial cooking operations.

Provisions cover the design; installation; operation; and inspection, testing, and maintenance of the full spectrum of cooking equipment, hoods, grease removal devices, exhaust duct systems, fans, fire suppression systems, and clearance to combustibles.

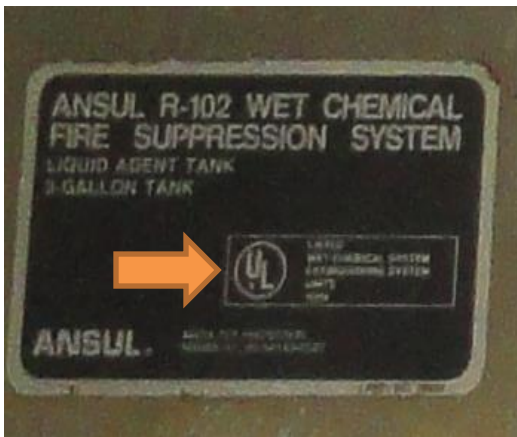
#### **When Underwriting Restaurant Insurance Coverage, What Is An Important Safety Feature Under This Standard To Consider When Building Coverage Is Involved: ARE COOK LINE APPLIANCES THAT PRODUCE GREASE VAPORS, PROTECTED BY A FIRE SUPPRESSION SYSTEM THAT IS UL 300 COMPLIANT?**

#### **What is a UL-300 Compliant System:**

UL 300 is a test standard, which tests pre-engineered fire extinguishing systems for protection of restaurant cooking areas such as exhaust hoods, plenums, and ducts; and cooking appliances such as deep fat fryers, woks, flat irons or griddles, tilting skillet or braising pan, char-grills, range tops, broasters, or upright / vertical broilers and salamanders.

In order to meet the demand for faster cooking, a new generation of well insulated, high efficiency cooking appliances was introduced. These appliances are manufactured to heat faster, cook hotter and cool slower. To accommodate this new technology, the use of higher temperature vegetable cooking oils became more wide spread replacing animal fat oils. The auto-ignition of lard or animal fat is in the range of 550-600°F range while vegetable oils hover around 685°F or higher.

**QUESTION? Agent says there is a UL label on the manufacturers' nameplate so does this mean the hood fire suppression system complies with UL 300? NO, all fire suppression systems are tested to UL standards but only those manufactured after 1994 will also include the wording "Meets The Requirements of UL 300 Standard" along with the UL label. A UL label but without the "Meets the Requirements of UL 300 Standard" clarification wording would not be UL300 compliant.**



**QUESTION? So When Agent's Application States The Hood Is Protected By A Dry Chemical System Will Dry Chemical Hood Fire Suppression Systems Meet UL 300 Compliance:**

**NO.** No dry chemical system would meet the requirements of UL 300 compliance. In fact, in the 2014 NFPA 96 Chapter 10, Fire Extinguishing Equipment under 10.2 Types of Equipment, 10.2.3.2 states, "Effective January 1, 2014 all existing fire extinguishing systems shall meet the requirements of 10.2.3. 10.2.3 states "Automatic fire-extinguishing systems shall comply with ANSI/ UL 300 or other equivalent standard and shall be installed in accordance with the requirements of the listing." As of January 1, 2014 fire suppression service companies will no longer service dry chemical suppression systems

**How Can You Visually Tell If The System Is UL 300 Compliant:**

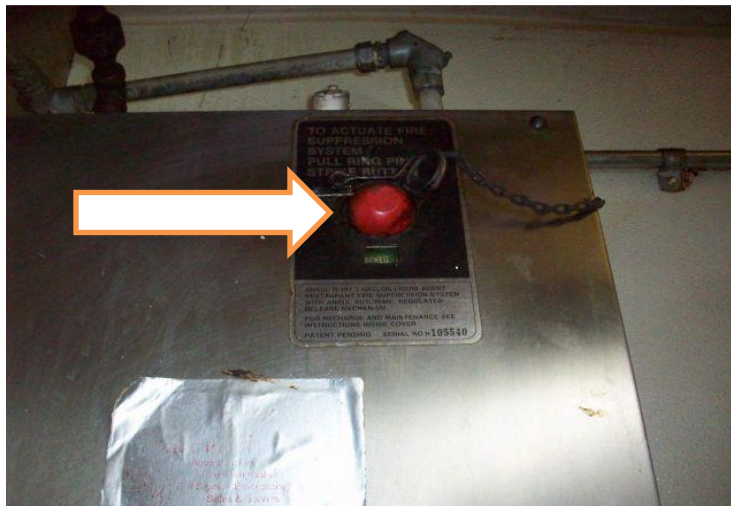
UL-300 became effective on November 21, 1994. The only kitchen hood fire suppression systems tested by fire suppression equipment manufacturers were wet chemical fire suppression systems. Systems purchased and installed after that date should be UL 300 compliant. **There were wet chemical systems being built before this date especially by Ansul but they were not tested to UL 300 criteria and thus would not be UL 300 compliant unless upgraded to comply. No dry chemical system was ever tested to UL 300.**

See pictures below of design components associated with a dry chemical hood fire suppression system.



Suppression systems with this head style are always dry chemical fire suppression systems that would be non UL 300 compliant

OR



Notice red activation button on the wet chemical fire suppression control cabinet on above Ansul system that is pre-1994 thus not UL 300 compliant and compare with below Ansul wet chemical fire suppression control cabinet that is UL 300 compliant. Notice lack of protruding activation button.



Another obvious feature of a hood fire suppression system that is UL 300 compliant is the labeling notification on the fire suppression cabinet or cylinders that contain wet agent as viewed in the following pictures.



Look for this labeling on the Ansul UL 300 compliant system-all suppression systems have a UL label but only systems tested to UL 300 standard have a specific UL 300 statement reference such as Ansul's seen above or Pyro-Chem's see below. All kitchen hood fire suppression manufacturers will have some notification of UL 300 compliance.

