

5 Simple Reasons to Upgrade to the Current UL 300 Standard

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Some twelve years out, the fire protection industry continues its education of local AHJ's and encourages end users to upgrade their commercial cooking pre-engineered fire suppression systems to meet the current UL 300 standard. Today, FEMA would like to explore its strong recommendation that everyone needs to upgrade to the current UL 300. Let's address the many advantages, as well as point out the potential ramifications of not upgrading your commercial cooking pre-engineered fire suppression system to meet the twelve-year old standard.

to be replaced with a new UL 300 wet chemical system for a number of reasons. Here is the first and most important reason: **#1** UL 300 (which went into effect in late November of 1994) mandated improved testing requirements and resulted in modern wet chemical systems having superior fire suppression and extinguishment capabilities. This modern system now has many added benefits, including its ease of use and lower cost to clean up following discharge — you only need to clean up the affected area! Under these same testing guidelines, dry chemical pre-

Let's look at a worst-case scenario. Imagine that your restaurant had a fire and your employee tried to extinguish the fire with a dry chemical fire extinguisher (not the new K class extinguisher now required by code). The fire may appear to be temporarily extinguished, but in almost every case the fire will certainly (in the case of a runaway deep fat fryer) re-ignite. At this point, the fire may be too intense for the outdated, dry chemical pre-engineered fire suppression system to handle. Whenever a fire involves a fryer, wok or range, an outdated, dry chemical pre-engineered system may not be able to handle the problem or extinguish the fire because it was never tested to current "real world" conditions. Therefore, in addition to updating your cooking equipment pre-engineered fire suppression systems, restaurant owners are also encouraged to update their kitchen fire extinguishers to the Class K-rated type now required by code. It is essential that restaurant owners and managers make the change immediately.

Reason #3: Dry chemical systems for restaurants are no longer manufactured and, therefore, the original manufacturers (if they are still in business) no longer provide necessary replacement parts to conduct required service and maintenance of the system. As a result, if a discharge does occur or if a component needs to be replaced, the restaurant owner may suddenly be faced with the

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Should I spend the money on updating or replacement of my dry chemical pre-engineered fire suppression system? And, is the upgrade or replacement really necessary? The answer to both is a resounding yes!

Ultimately, the decision comes down to two underlying questions for the restaurant owner or manager – should I spend the money on updating or replacement of my dry chemical pre-engineered fire suppression system? And, is the upgrade or replacement really necessary?

The answer to both questions is a resounding yes! Let us explore why. If your restaurant's pre-engineered fire suppression system is currently an older, outdated dry chemical system, it needs

engineered systems were found to be ineffective when tested to the new UL 300 requirements.

Reason #2: Restaurant operation cannot afford to be out of business for an extended period of time. If the kitchen cannot operate, the restaurant cannot conduct business. It is a no-win situation for everyone involved. A restaurant that keeps in place an old, outdated dry chemical system is placing itself at risk for some serious downtime should that system ever discharge.



FEMA Recommended Decision Tree For Servicing Pre-Engineered Systems Protecting Commercial Cooking Operations

Is the Installed System a Dry Chemical or Wet Chemical?

DRY CHEMICAL



Replace the system with a new UL 300 Listed Wet Chemical System. Do not conduct a 6 year maintenance - Do not attempt to retain any existing control heads, nozzles, discharge piping, detection, or conduit per NFPA 96 - 2004 Edition. If in doubt, contact the system manufacturer for complete information concerning any components that may be able to be retained. Do not abandon in place any existing conduit, detectors or piping. All existing penetrations in the hood must be sealed per NFPA 96 - 2004 Edition.

Check with local AHJ for replacement requirements. Many jurisdictions are requiring replacement of Dry Chemical systems. Replacement requirement may be based on changes in the cooking line since the system was first installed/designed, changes in cooking media or upgrade requirements to be performed within a certain time frame.

If the system does not fall under any such local requirements, explain to the owner that original manufacturers warranty, product support and parts are no longer available. Any repairs and/or any discharge that may occur will require an immediate replacement incurring significant emergency costs and down time.

Note: If any deficiencies are found with the system and not repaired, or if the system does not conform to UL 300, the system should receive a RED TAG signifying those findings.

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WET CHEMICAL

Is the System Installed and Listed to UL 300?

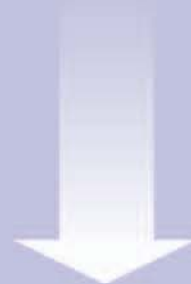
NO

Either replace the system or upgrade it to a UL 300 Listed system. Check with the manufacturer to see if the system is capable of being upgraded without losing its UL Listing. Also confirm with the manufacturer what, if any, components may be retained. Manufacturers' warranties and UL Listings may be voided if existing components are retained for use with the upgraded system.

Check with local AHJ for upgrade or replacement requirements. Many jurisdictions are requiring replacement or upgrade of non-UL 300 Listed Wet Chemical systems. Upgrade or replacement requirements may need to be performed within a certain time frame. Installations which took place in 1994 and prior may require such action due to changes in the cooking line since the system was first installed/designed, changes in cooking media or cooking equipment has been replaced.

YES

(go to next question)



Is the System Properly Designed for the Hazard?

NO

Record deficiencies and submit a quote to correct them to the owner/manager. Put documentation of deficiencies along with copy of the quotation in the service file. If possible have owner/operator sign the deficiency report and your proposal. This will insure that you communicated such deficiencies. Notify the local AHJ and/or insurance company where required or deemed appropriate.

Train cooking operation personnel on how to use the system. Training should include the proper use of the K class extinguisher as required per NFPA 10.

YES

Maintain the system in accordance with NFPA 17A, NFPA 96, the manufacturer's maintenance and installation manual, and applicable Codes and Statutes.

Train cooking operation personnel on how to use the system. Training should include the proper use of the K class extinguisher as required per NFPA 10.

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requirement of replacing the entire pre-engineered fire suppression system with no provision given to their operating budget. Clearly, a system replacement in this situation would result in significant down time and unforeseen expenses as a new pre-engineered fire suppression system is installed and tested with the local fire inspector.

Reason #4: Many fire equipment distributors who are licensed by the state to maintain pre-engineered fire suppression systems are refusing to work on dry chemical systems in restaurants. The liability involved with working on an outdated system that may be in excess of twenty-five years old without any support from its manufacturer is simply too much to accept.

Reason #5: One last point to consider, a UL 300 system wet chemical discharges only onto protected equipment, resulting in no “fallout” throughout the entire restaurant. Regardless of the reason for the discharge, the cost of a new pre-engi-

neered fire suppression system may be realized in a single, clean-up incident.

In summary, replacing old dry chemical pre-engineered fire suppression systems along with replacement of dry chemical extinguishers within the cooking kitchen is just a matter of time. It makes perfect sense for the restaurant owner or manager to make the change now rather than wait and face unexpected costs when the system can no longer be maintained — or worse yet, when a disastrous fire incident occurs.

As a recommended approach to educating restaurant managers and owners and AHJs, FEMA has developed a decision tree as a useful, hands-on guide to replacing non-UL 300 systems or upgrading existing systems to UL 300 requirements. This decision tree is meant to be a tool for Service Technicians when customers are facing the decision of when and why to replace older pre-engineered fire suppression systems. This UL 300 decision tree is

attached as a “cut-out” to this article, and is available on FEMA’s website at www.femalifesafety.org along with other information regarding obsolete systems and hand portable extinguishers. ▽

For more information about pre-engineered fire suppression systems, please visit a new education and awareness program online at www.firesystemstraining.org, a public service web site created by FEMA.

Founded in 1946, FEMA is an international, non-profit trade association representing the world’s leading fire equipment manufacturers. Its member companies aim to provide and manufacture top-quality fire protection products ranging from portable fire extinguishers and fire hose systems to fire suppression systems, interior equipment, and others — all necessary components of a complete and balanced fire protection plan. For more information, visit www.femalifesafety.org or call 216.241.7333.

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