

Clarification of Changes to Part 251 “Fire Equipment Distributor and Employee Standards”

January 1, 2010 Requirements for Commercial Kitchen Suppression Systems to Comply with UL 300

The information found below is intended to clarify the requirements of the *Fire Equipment Distributor and Employee Standards* (41 Ill. Adm Code 251) and specifically Section 251.120 that take effect January 1, 2010.

In late 2008 a modification was made to Section 251.120 that requires all fire suppression systems that protect commercial cooking operations to be compliant with Underwriters Laboratories “*Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment*” commonly known as “UL 300”. This is the UL test standard for kitchen cooking equipment that was updated in 1994. This standard was developed when it was realized that dry chemical kitchen suppression systems were not successfully extinguishing fires in commercial kitchens. It was discovered that the primary reason for dry chemical systems failing was a result of the substitution of vegetable oils for animal fats as the cooking medium and also as a result of the more predominant use of higher efficiency cooking equipment. While not excluding the use of dry chemical suppression agents for pre-engineered kitchen suppression systems, no dry chemical systems have successfully passed the UL 300 test standard and therefore, only wet chemical suppression systems have earned the UL 300 listing.

Because the Part 251 rules adopt NFPA 96 (2008 edition) by reference, and NFPA 96 requires newly installed commercial kitchen suppression systems to be UL 300 listed, newly installed suppression systems should already be compliant with these requirements. The Part 251.120 rule change gave facility owners until January 1, 2010 to bring existing commercial cooking fire extinguishing systems into compliance with the UL 300 standard unless the occupancy was owned or operated by a governmental entity, in which case the upgrade does not have to be completed until January 1, 2011.

Here is the specific rule language from Part 251.120:

Section 251.120 Existing Dry Chemical and Wet Chemical Fire Extinguishing Systems

- a) *All existing dry chemical and wet chemical fire extinguishing systems installed for the protection of commercial cooking operations that produce grease-laden vapors shall comply with the UL 300 “Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment”, identified in NFPA 17, 17A, and 96.*
- b) *All existing extinguishing systems shall comply by January 1, 2010, except as otherwise permitted in subsection (c).*
- c) *All existing extinguishing systems installed in occupancies that are owned or operated by a governmental entity shall comply by January 1, 2011.*

Here are some key points that you need to be aware of about this rule requirement:

- Part 251.120 requires only that the fire suppression system protecting commercial kitchen cooking operations be upgraded to comply with UL 300;
- Nothing in the Part 251 rules, nor in the NFPA standards referenced by the Part 251 rules (e.g., NFPA 96, NFPA 17 or NFPA 17A) requires that the entire existing kitchen cooking hood and duct system or other components of the installation be brought up to the current edition of those NFPA standards unless changes have been made to the equipment installation that warrant such an upgrade;
- Some code enforcers and some fire equipment contractors believe that the Part 251 rules, or the requirement to provide a UL 300 compliant suppression system, translates into requiring the installation of all new hoods, duct work, exhaust fans, and other components in the kitchen protection system. This is simply not true. If the components of the hood and duct exhaust system (other than the suppression system which must be upgraded to comply with UL 300) are compliant with the edition of the applicable NFPA standard that was in effect at the time they were installed, and there have been no alterations that

would cause the arrangement to be out of compliance, there is not a requirement in the State rules or in the NFPA standards to upgrade the installation to a later edition of the NFPA standard.

- If a commercial kitchen hood and duct system was not compliant with the applicable edition of the NFPA standard that was in effect at the time the installation was made, then it has never been in compliance with the rules or applicable codes, and therefore it is legitimate for an authority to order that the installation now be corrected. During the inspection process to determine if the fire suppression system is in compliance, other code deficiencies that should have been noticed long ago are being discovered and it is legitimate that these are now be ordered to be corrected if they are violations of the edition of the NFPA standard that applied at the time the installation was made.
- In accordance with other section of the Part 251 rules, work on the kitchen fire extinguishing system is required to be done by an OSFM-licensed fire equipment contractor.
- A list of all licensed fire equipment contractors is available for viewing by anyone on the OSFM Division of Fire Prevention's website. The list can be viewed at:
http://www.state.il.us/osfm/FirePrevention/pdfs/R_FIREDST1_WEB.PDF

In summary, the provisions requiring a UL 300 fire suppression system for protection of commercial cooking operations is applicable retroactively because the Part 251.120 rule makes this a requirement. The other requirements of the NFPA standards (NFPA 96, NFPA 17 and NFPA 17A) are not applicable retroactively unless the language of the requirement in the NFPA standard specifically states that the requirement is to be applied retroactively to an existing system. This is made clear by the language from Section 1.4 of NFPA 96 "Retroactivity" (and you will find similar language in NFPA 17 and NFPA 17A):

*"The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued".
Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. Where specified, the provisions of this standard shall be retroactive".*

Note the last line, which states "where specified," are the only provisions of the standard that can be applied retroactively. **If a code user, enforcer or equipment contractor misses the "up-front" language in each NFPA standard that addresses the "non-retroactivity" of the requirements found therein, they could easily read the requirements of the standards to be applicable to existing installations and this could be a costly mistake because they would be requiring existing installations to comply with the most recently adopted edition of the standard every time it is updated and this is not the intent of the standard's requirements.**

If you have further questions regarding the application of Part 251.120 rule requirement, or NFPA 96 you may contact the OSFM's Division of Technical Services in our Chicago office at (312) 814-8960.

Notes:

NFPA 17 is titled *Standard for Dry Chemical Extinguishing Systems*

NFPA 17A is titled *Standard for Wet Chemical Extinguishing Systems*

NFPA 96 is titled *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*