

FM Global Approved Products for Use in NFPA 13 Applications

A brief description stating the main difference between FM and UL:

FM Global is both a testing laboratory and an insurance underwriter that has a monetary interest in product approvals because they assume the risk in providing insurance to their clients. Most buildings that have large storage applications are either insured by companies that are underwritten by FM Global or the building owners want to have the ability to change to an FM Global Company if they desire. FM Global uses the term "approved."

UL is a testing laboratory. UL uses the term "listed."

NFPA 13, 2010 (and earlier editions) paragraph 3.2.3 defines listed as: Equipment, materials, or services included in a list that is published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

FM Global and UL are currently the only US approval organizations that comply with this paragraph.

Because **FM Global** has a monetary risk related to their product approvals, their standards and approval requirements are generally more stringent than those of UL.

Examples: NFPA allows the use of sprinklers with K factors as small as 5.6 for storage applications with densities as low as .17. FM Global restricts storage applications to a minimum K factor of 11.2 and a .30 density. UL lists pressures for K-25.2 ESFR sprinklers at a minimum of 10 psi per sprinkler less than FM Global.

How can products not designated in NFPA 13 be used under NFPA 13 requirements?

Due to the continual development of new technology products, language was added to NFPA 13 several cycles ago that allows the use of new fire protection technology products prior to waiting (up to 3 years) for inclusion in the latest standard.

Paragraph 1.6 New Technology.

- 1.6.1 Nothing in this standard shall be intended to restrict new levels of technologies or alternate arrangements, provided the level of safety prescribed by this standard is not lowered.
- 1.6.2 Materials or devices not specifically designated by this standard shall be utilized in complete accord with all conditions, requirements, and limitations of their listing.

All Reliable products that have been approved by FM Global must follow FM requirements. UL listed products must follow the guidelines established by the listing.

What about CMSA sprinklers?

NFPA 13, 2010

3.6.4.1 Control Mode Specific Application (CMSA) Sprinkler. A type of spray sprinkler that is capable of producing characteristic large water droplets and that is listed for its capability to provide fire control of specific high-challenge fire hazards.

8.4.7 Control Mode Specific Application (CMSA) Sprinkler.

8.4.7.1 CMSA sprinklers shall be permitted to be used in wet, dry, or preaction systems and shall be installed in accordance with their listing.

Reliable's N252 EC sprinkler and our NE196 sprinkler are **CMSA** sprinklers and were approved for these specific applications and must be installed per the requirements of the testing laboratory, FM Global.