FORMAL INTERPRETATION 99 - 1

Acceptable Locations for Extinguishing Agent Containers

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Approved

By: V. J. Bella

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Question: What are acceptable locations for extinguishing agent containers with respect to NFPA 12, NFPA

12A and NFPA 2001?

Background:

In order to fully evaluate NFPA's intent for location for suppression agent containers, we not only reviewed the above referenced standards, but also NFPA 17 and 17A, which include containers (although these systems are predominantly appliance protection and not total flooding). Please see attached letter from Jerry Jones of 6-27-95, and its UL attachment. NFPA 17 and 17A require physical separation of the container from potential fire and/or explosion damage. If potential fire damage is of issue, then we require a minimum 3' separation between the container and the appliance(s). If listed documentation can be provided, to utilize a fire protective housing to enclose a container which is closer than the 3' minimum, this office would accept such alternative.

NFPA 12, 12A and 2001 primarily involve total flooding systems. Although different from the specific appliance protection requirements of NFPA 17 and 17A, these total flooding standards have similar requirements, with respect to protection of the container. Resultant to research of these total flooding standards, in particular: 1988 NFPA 12:1-8.4, 1997 NFPA 12A:2-1.3, and 1996 NFPA 2001:2-1.4, this office has made the following observations and determination:

No mention is made in these NFPA standards, mandating an isolated space or separate room for the container, as a blanket requirement. These NFPA standards contain performance based requirements, for protection of the container and associated accessories against fire, explosion, as well as severe weather conditions, mechanical damage, chemical damage and physical exposure damage.

These NFPA standards also require the container and associated accessories to be so located and arranged that inspection, testing, recharging and other maintenance is facilitated.

Per memorandum from Jerry Jones, 12-27-96, it has been the interpretative policy of this office to prohibit the containers from placement within the area protected, unless the containers are separated from the area protected so as to limit the possibility that the initiation of fire would damage the containers before operation. It is the opinion of this office that it is the intent of the code committees to protect the containers from potential damage of any type referenced in these standards, regardless of weather the protection system is total flooding or appliance specific.

PROTECTION OF CONTAINERS FOR APPLIANCE SPECIFIC HAZARDS, PER NFPA 17 AND 17A

- 1. Per Jerry Jones' letter of 6-27-95, this office will continue to impose the minimum 3' separation, between container and hazard.
- 2. Designers requesting less than the 3' separation will continue to be required to document listed protection compliance for these close proximity containers.

PROTECTION OF CONTAINERS FOR TOTAL FLOODING HAZARDS, PER NFPA 12, 12a AND 2001

- 1. For protection systems incorporating the container within the hazard area, this office will now impose a minimum 3' separation, from the container to each potential hazard (Computer equipment, telephone exchange equipment, electrical equipment, etc.), within the total flooding area. Submissions shall indicate location of each hazard as well as the container. The intent is to provide physical separation between the container and the hazard (similar to our requirements for NFPA 17 and 17A systems). Warning signs should be posted at container location, denoting: "WARNING: DO NOT PLACE ANY TYPE OF POTENTIAL FIRE HAZARD (ELECTRICAL EQUIPMENT, PAPER FILES, ETC) WITHIN THREE FEET OF THIS FIRE SUPPRESSION AGENT CONTAINER."
- 2. Designers requesting less than the 3' separation will be required to document listed protection compliance for these close proximity containers.
- 3. For protection systems incorporating the container outside of the hazard area (either in in the ceiling cavity above the hazard, etc.). No further container protection is required.

Please keep in mind that all special conditions referenced above (such as hazards due to explosion, flammable and combustible liquids or gases, etc., or potential damage due to adverse weather, mechanical, or chemical conditions, etc.) will require special protection of the container. This special protection shall be considered on a case by case, per project basis. Specifics on this special protection shall be clearly denoted in the submittal, complete with listing justification (as applicable).