M05-007
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Changes in NFPA 12 2005 Edition

Marketing Bulletin

The purpose for the changes in NFPA 12 2005 edition is NFPA's continuing effort to improve/enhance "LIFE SAFETY" of both new and existing CO2 fire suppression systems.

The code changes will have an impact on how new systems are designed and installed, plus require existing system to be upgraded with improve safety features.

The type of Applications / Systems affected are as follows:
- Total Flood CO2 systems applied to Normally Occupied Spaces
- Total Flood CO2 systems applied to Occupiable Spaces
- Local Application Systems
- Any system where the discharge of CO2 agent will expose personnel to hazardous concentrations of CO2.

NFPA has added a number of paragraphs covering "Retroactivity", what this means is all EXISTING systems (Normally Occupied, Occupiable, Local Application, if exposing personnel) shall be upgraded to meet the requirements for:
- Safety Signs
- Lock-out Valves
- Pneumatic Time Delays
- Pneumatic Pre-Discharge Alarms
- Olfactory Device (oil of wintergreen)

These upgrades must be completed by August 7, 2006 for your system to be in compliance with the 2005 edition of NFPA 12.

The standard also recommends that the new safety signs be accomplished immediately.

The addition of supervised lock-outs, pneumatic pre-discharge alarms and pneumatic time delays, require that the system flow calculations be verified and be in accordance with this standard.
- Added equivalent pipe length to the system due to adding the lock-out valve and pneumatic time delay.
- Added agent required due to adding the pneumatic siren.

For new installations, CO2 total flooding fire-extinguishing systems shall not be installed in normally occupied enclosures except where no equivalent level of fire protection is available with other types of clean agents.

If it is determined that CO2 is to be used for a given application, the designer / installer shall provide supporting documentation to the AHJ to verify that CO2 is the most appropriate fire suppression agent for the application.

Total Flooding CO2 systems are not intended to be acceptable substitutes for Halon 1301 total flooding systems used for normally occupied enclosures. Some examples of normally occupied enclosures with surface fire hazards that should be considered for other types of clean fire-extinguishing agents are:
- Offices
- Computer Rooms
- Control Rooms
- Data Centers
- Libraries

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