

# IMPLICATIONS OF USING HALON AND CFC SUBSTITUTES ON OCCUPATIONAL SAFETY AND HEALTH STANDARDS

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## ABSTRACT

In accordance with Section 612 of the Clean Air Act Amendments, EPA will be promulgating regulations governing the use of halon and CFC substitutes as fire suppression and extinguishing agents. As part of the rulemaking process, EPA is currently evaluating the occupational risks associated with the use of potential substitute materials in fire protection systems.

The fact that halon and CFC substitutes will undoubtedly be widely used in the future is likely to cause regulatory agencies to develop recommended legal standards for worker protection from the safety and health hazards associated with the use of these substitutes; however, the development of these standards will likely lag behind the time frame for phasing out halons and CFCs. Both designers and users of fire protection systems need to anticipate the widespread use of the substitutes in order to effectively implement occupational safety and health programs dealing with fire protection.

One area likely to be affected is the development of permissible exposure limits (PELs). Two organizations, the American Conference of Governmental Industrial Hygienists (ACGIH) and the American Industrial Hygiene Association (AIHA), are currently examining the need to establish recommended occupational limits for a number of CFC substitutes. The Occupational Safety and Health Administration (OSHA) has been developing procedures to revise its PELs on a regular basis and may adopt the limits for the CFC substitutes recommended by the ACGM or AIHA as part of this process. OSHA's first comprehensive revision of its PELs for air contaminants was promulgated in 1989; this action has generally been regarded as one of the Agency's most successful rulemaking actions.

OSHA's Fire Protection Standard (Subpart L) may also be revised in the future to respond to the use of halon substitutes. This standard, promulgated in 1980 and revised periodically since, contains a number of specific requirements governing the use of portable and fixed halon systems. The National Fire Protection Association, which provided substantial input to OSHA during the

Subpart L rulemaking, is actively evaluating safety and health issues concerning the use of halon substitutes.

**Users** of fire protection systems will **need** to revise their employee safety and health training **programs** to comply with **OSHA's** Hazard Communication Standard, which was extended to non-manufacturing industry **sectors** in 1988. Specifically, employers will need to inform employees of the potential hazards associated with exposure to substitute materials and must have material safety **data** sheets available for inspection by employees.

In summary, the development of a variety of substitutes for halon and **CFCs** in fire protection applications is currently causing private- and public-sector standards-setting organizations to reevaluate their rules in light of these developments. Designers and users of **fire** protection **systems**, however, must evaluate the health and safety hazards associated with the use of the substitutes in their workplace because it may be some time before these official groups publish guidelines or standards for the substitutes.