



FIRE SUPPRESSION SYSTEMS ASSOCIATION

Shaping the Future of Fire Protection

WHAT DO YOU NEED TO KNOW IF YOU USE HALON?

AUGUST 2000

Though Halon production was banned in 1994, many Halon fire suppression systems are still operating today. Owners of those systems should have three concerns.

First, how must those systems be maintained? The EPA has mandated and the fire protection industry has endorsed a goal of zero for accidental Halon emissions. Regular maintenance is critical and, in fact, required to meet this goal. Responsibility for that maintenance rests with the owner of the system.

Next, what regulations impact current and future use of Halon? EPA issued its final rule on Halon in 1998. This rule addresses maintenance, training and disposal of Halon systems.

And finally, what is the future of clean agent fire protection. Halon opened a new era in fire protection. The industry has worked in conjunction with EPA to come up with clean agent alternatives that share Halon's good qualities and are environmentally friendly as well.

Here are some frequently asked questions about Halon suppression systems

Must Halon fire suppression systems be dismantled?

No. You have no current legal obligation to remove Halon systems from service. Also, there is no federal legal requirement to remove systems from service by any specific date.

In order to minimize Halon emissions, EPA strongly encourages Halon users to explore non-ozone depleting alternatives. However, this has not been mandated in part not to put an undue burden on businesses.



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What happens when a Halon system discharges?

First, you can legally recharge your system using recycled Halon or Halon produced before the ban on manufacturing. Recycled Halon is still readily available, although somewhat costly.

Again, EPA strongly encourages switching to a non-ozone-depleting agent. Unfortunately, none of the alternatives are drop-in replacements for Halon, so that is a costly proposition. If you should have a system discharge. This may be the time to weigh the cost of conversion against the cost of recharging the Halon system.

Where can recycled Halon be purchased?

In some cases, you can purchase recycled Halon from a fire protection equipment distributor. You can also purchase Halon directly from other owners who are decommissioning their systems. Remember, of course, that EPA requires appropriate training of those who will be handling the Halon.

You can also use the Halon Recycling Corporation. The HRC is a non-profit information clearinghouse established to assist sellers wishing to dispose of Halon in a responsible manner and to help buyers with critical uses locate supplies of Halon 1301 and 1211 for recharging their existing systems.

The HRC was established by members of the fire protection community and the Halon Alternatives Research Corporation, an industry consortium that promotes the research, development and use of alternatives to Halon for fire protection.

Can Halon be Imported?

It is legal under the Montreal Protocol and the U.S. Clean Air Act to import recycled Halon, that is, Halon that has been recovered from a fire suppression system. Each individual shipment of recycled Halon requires prior EPA approval. Approved imports that enter the U.S. must be reported to the EPA on a quarterly basis.

Newly produced Halon or Halon never installed in a fire suppression system may not be imported into the U.S.

Also, the IRS imposes a tax on certain ozone depleting chemicals.

If you choose to import Halon, know your source. Manufacturing standards in other countries are not always the same as in the U.S. and may affect the purity of the agent. There have been some problems with imported Halon containing water, causing the cylinders to rust from the inside.



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What federal laws pertain to Halon?

EPA's final rule on Halon was published in March of 1998. It sought to ensure environmental benefits by requiring a set of practices already widely adhered to, that would minimize unnecessary releases of halons.

First, the rule banned creating blends of halons on the grounds that the infrastructure to recycle and reuse such blends isn't generally available and that growing stocks of non-recyclable Halon blends would pose a significant environmental risk.

Next, the rule prohibited the venting or intentional release of halons during most technician training exercises or during the testing, repair or disposal of Halon containing equipment.

The rule also requires that technicians who work with Halon-containing equipment be trained about Halon emission reductions.

Finally, the rule requires that halons and Halon-containing equipment be properly disposed of. The only permissible means of disposing of these items, aside from destruction, are by recovering the Halon with minimal losses to the atmosphere and by recycling it using facilities that operate in accordance with NFPA 10 and 12A

Sources for this training would include NICET, manufacturers' technical training programs and the Fire Suppression Systems Association. If local licensing requirements exist, that license should be sufficient to constitute appropriate training.

Are there any exemptions?

In recognition of the special needs of certain critical halon applications, the rule provided for some exemptions. For example, the release of halons during the testing of fire extinguishing systems or equipment is exempted if four criteria are met:

- First, systems or equipment using suitable alternative agents aren't available.
- Next, system or equipment testing requiring the release of the agent is essential to demonstrate system or equipment functionality.
- Third, system failure would pose great risk to human safety or the environment.
- Finally, a simulant agent can't be used for testing purposes.



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How must the system be maintained?

EPA's final rule makes it clear that the owner of Halon-containing equipment is responsible for proper maintenance in accordance with NFPA standards. NFPA 12A, which pertains to Halon 1301 fire extinguishing systems, requires that, at least semi-annually, all systems be thoroughly inspected, tested and documented for proper operation by trained and competent personnel.

The standard goes on to say that agent quantity and pressure of refillable containers must be checked. If a container shows a loss in net weight of more than five percent, or a loss of pressure of more than 10 percent, it must be refilled or replaced. All Halon removed from these containers during service or maintenance must be collected for recycling.

According to D.O.T., Halon 1301 cylinders must be retested every five years if the cylinder has discharged. If the cylinder has never discharged, a visual inspection will suffice.

Maintenance must also include a visual inspection of all system components as well as the enclosure being protected. If the visual inspections turn up anything questionable, testing is required.

Finally, all maintenance and testing must be performed by personnel trained regarding Halon safety issues. Personnel working in a Halon-protected enclosure must also be trained on Halon safety. The owner of the system should keep a documented report of each inspection along with recommendations.

How Can I Dispose of Halon?

When it's time to dispose of your Halon, you have five options.

- You can make it available to critical users through the Halon Recycling Corporation.
- You can donate it to the Department of Defense Ozone Depleting Substances Reserve. You can return it to your distributor for resale.
- You can send it to a Halon recycler.
- If you have a very small amount of Halon 1301, or if you have Halon 1211 or 2402, Friends of the Earth can help you locate a regional organization that will take your Halon as a service.

Remember, Halon must be disposed of in accordance with EPA regulations.

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Contact the Fire Suppression Systems Association at 5024-R Campbell Blvd., Baltimore, MD 21236, phone: (410) 931-8100, fax: (410) 931-8111, e-mail: fssa@clemonsmgmt.com, www.fssa.net



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Resources

For more information on the topics addressed in this article, contact:

- Environmental Protection Agency
www.epa.gov/ozone/
- Fire Equipment Manufacturers Association
www.taol.com/fema
- Fire Suppression Systems Association
www.fssa.net
- Halon Alternatives Research Corporation
www.harc.org
- National Association of Fire Equipment Distributors
www.nafed.org
- National Fire Protection Association
www.nfpa.org
- National Institute for Certification in Engineering Technologies
www.nicet.org