AIM Act: Fire Suppression Technician Training Overview

Background

The American Innovation and Manufacturing (AIM) Act directs the U.S. Environmental Protection Agency (EPA) under subsection (h), "Management of Regulated Substances," to promulgate certain regulations for the purposes of maximizing reclamation and minimizing releases of certain hydrofluorocarbons (HFCs) and substitutes from equipment. Managing HFCs includes activities related to the servicing, repair, disposal, and installation of equipment containing HFCs and their substitutes. EPA's Emissions Reduction and Reclamation (ER&R) final rule, published on October 11, 2024 (89 FR 82682) under AIM Act subsection (h), established regulatory requirements (40 CFR part 84, subpart C) to minimize the release of HFCs and their substitutes from equipment (*e.g.*, fire suppression equipment) and to maximize the amount of HFCs reclaimed.

As of January 1, 2026, entities employing fire suppression technicians who install, service, repair, or dispose of fire suppression equipment containing HFCs must provide technician training. This document provides a suggested outline for materials developed to train fire suppression technicians and should not be considered the training itself. It is provided for informational purposes only and should not be relied on for regulatory compliance. Each facility or organization should develop training suitable for its situation in accordance with the requirements outlined in 40 CFR 84.110(d)(1). Refer to 40 CFR part 84, subpart C for more information on implementing this requirement. For any questions regarding the training requirement, please contact EPA at HFCEmissionsReduction@epa.gov.

Summary of Fire Suppression Requirements

For the fire suppression sector, EPA established requirements in 40 CFR 84.110 to minimize releases of HFCs during the installation, servicing, repair, or disposal of fire suppression equipment containing HFCs, or during the use of such equipment for fire suppression technician training. [1]

Requirements include:

- Use of recycled HFCs for servicing and/or repair
- Recycling of HFCs prior to disposal of equipment
- One-time training for fire suppression technicians
- Recordkeeping and reporting
- Use of recycled HFCs for initial installation of equipment

Technician Training

Fire suppression technicians must complete a one-time training covering proper practices, processes, or activities regarding the installation, servicing, repair, or disposal of fire suppression equipment. Technicians hired on or before January 1, 2026, must be trained by June 1, 2026. Technicians hired after January 1, 2026, must be trained within 30 days of hiring, or by June 1, 2026, whichever is later.

[1] The requirements in the 2024 ER&R final rule do not apply to two fire suppression applications: (1) mission-critical military end uses, and (2) onboard aerospace fire suppression for the period that the application receives an application-specific allowance. In addition, fire suppression equipment does not include military equipment used in deployable and expeditionary situations and also does not include space vehicles.

As of January 1, 2026, entities employing fire suppression technicians subject to ER&R must maintain a paper or electronic copy of the technician training used and make it available to EPA upon request. This record must be kept for three years after a training is given.

EPA recognizes that technicians may perform multiple functions and may undergo training for other purposes or requirements. The aim of EPA's technician training requirement is to ensure that technicians who service HFC fire suppression systems are trained to minimize unnecessary releases of HFCs, and to maximize their recovery and recycling. The goal of this document is to help identify elements and topics that could be covered in such training. This training may take the form of a stand-alone course or may take the form of a unit or session within existing training requirements using the following information.

I. Explanation of the purpose of the training requirement

The training material must describe the importance of the training, address the significance of minimizing releases of HFCs, and ensure technician safety. It may include the information below:

Trained technicians can better prevent HFC emissions
Technicians are a key element in any effort to control unnecessary emissions of HFCs. Training technicians in the significance of, and procedures for, minimizing unintentional HFC releases is a vital part of EPA's effort to reduce emissions.

It is federal law
EPA's regulation (40 CFR 84.110(d)) published October 11, 2024, requires that all entities that employ fire suppression technicians to install, service, repair, or dispose of fire suppression equipment containing HFCs must ensure that these technicians are trained on emissions reduction of HFCs.

The AIM Act
The AIM Act directs EPA to phase down the production and consumption of HFCs by 85 percent from historic baseline levels by 2036. Maximizing reclamation and minimizing releases of HFCs from equipment supports the phasedown of HFCs by making the most of a finite supply. HFCs in the fire suppression sector are used as fire suppressants and should only be discharged from the equipment in the event of a fire. During the installation, servicing, repair, or disposal of fire suppression equipment, HFCs may not be knowingly vented or released into the environment.

II. Required fire suppression technician training content

The training must provide an overview of HFCs and environmental concerns, as well as information on relevant regulations, which may include those from EPA and other federal (*e.g.*, U.S. Department of Transportation (DOT), Occupational Safety and Health Administration (OSHA)), state, local, and Tribal agencies and governments. Additionally, the training must discuss relevant fire, building, safety, and environmental codes and standards, and specific technical instruction relevant to avoiding unnecessary emissions of regulated substances.

Use of HFCs in fire suppression equipment
HFCs are used as clean agents in fire suppression systems because they leave no residue and are electrically non-conductive. They are used in applications such as data centers, computer rooms, museums, laboratories, aircraft, and other sensitive areas. The most common HFCs used in fire suppression are HFC-23 (CHF_3), HFC-125 (CF_3CHF_2), HFC-227ea (CF_3CHFCF_3), and HFC-236fa ($CF_3CH_2CF_3$). These HFCs have a high global warming potential (GWP) leading to concerns regarding emissions.

Relevant EPA regulations

Emissions Reduction and Reclamation Final Rule (40 CFR part 84, subpart C)

These regulations make it unlawful for:

- Entities that install, service, repair, or dispose of fire suppression equipment to knowingly vent or release HFCs into the environment.
- Owners and operators of fire suppression equipment containing HFCs to allow the release of HFCs because of failure to maintain that equipment.
- Entities to dispose of fire suppression equipment containing HFCs except by either recovering the HFCs themselves before sending the equipment for disposal or by leaving the HFCs in the equipment and sending it for disposal to a facility.
- Entities to dispose of HFCs used as a fire suppression agent except by sending it for recycling to a fire suppressant recycler or a reclaimer certified under 40 CFR 82.164, or by arranging for its destruction using one of the controlled processes listed in 40 CFR 84.29.

For fire suppression equipment that uses HFCs:

- As of January 1, 2026, recycled HFCs must be used for the servicing and/or repair of existing fire suppression equipment.
- As of January 1, 2030, recycled HFCs must be used for the initial installation of new fire suppression equipment within in the United States.

Significant New Alternatives Policy (SNAP) (40 CFR part 82, subpart G)

Under Clean Air Act Title VI, the SNAP program identifies and evaluates substitutes in end-uses that have historically used ozone-depleting substances, including fire suppression. Substitutes including HFCs must be approved under SNAP prior to being used as fire suppression agents. SNAP listings of acceptable alternatives can also help sectors transition away from certain HFCs. You can find a list of approved substitutes for total flooding agents and streaming agents on EPA's SNAP website.[2]

Relevant codes and standards

The training must cover relevant federal, State, and local, or Tribal fire, building, safety, and environmental codes and standards. These may include, but are not limited to, codes and standards from National Fire Protection Association (NFPA), American Society for Testing and Materials (ASTM), and International Organization for Standardization (ISO). Below is a non-exhaustive list of relevant codes and standards. The codes and standards that are taught in training are up to the discretion of the company.

- NFPA 2001: Standard on Clean Agent Fire Extinguishing Systems
- NFPA 10: Standard for Portable Fire Extinguishers
- ASTM D6064-11: Standard Specification for HFC-227ea
- ASTM D6126/D6126M-21: Standard Specification for HFC-23
- ASTM D6231/D6231M-21: Standard Specification for HFC-125
- ASTM D6541-21: Standard Specification for HFC-236fa
- Halon Alternatives Research Corporation (HARC): Voluntary Code of Practice for HFC and Perfluorocarbon (PFC) Fire Protection Agents

[2] Refer to the EPA SNAP webpages for total flooding agents and streaming agents.

Specific technical instruction relevant to avoiding unnecessary HFC emissions

The training must also cover specific technician instruction relevant to minimizing emissions of HFCs during the servicing, repair, disposal, or installation of fire suppression equipment at the different types of facilities where the technician might perform such work on fire suppression equipment. For example, technicians may need to perform regular maintenance on the system, such as fitting checks to determine tightness to prevent potential leaks.

Additional Resources

Managing Use and Reuse of HFCs and Their Substitutes:
www.epa.gov/hfcs/managing-use-and-reuse-hfcs-and-substitutes

ER&R Additional Resources:
www.epa.gov/hfcs/resources-managing-hfc-use-and-reuse

Fire Suppression Fact Sheet:
www.epa.gov/system/files/documents/2026-02/er-r-fact-sheet-fire-suppression-2026-02-09_1.pdf

Fire Suppression Substitutes:
www.epa.gov/snap/substitutes-fire-suppression-and-explosion-protection

Halon Emission Reduction Rule Guide:
www.epa.gov/ozone-layer-protection/guidance-halon-emissions-reduction-rule-40-cfr-part-82-subpart-h