

However, if a charged appliance is found at a facility that accepts appliances only with verification forms and does not inspect appliances, it is not a safe disposal violation. But, in the future, the facility can only accept verification statements from the same supplier who violated if it independently verifies that refrigerant has been removed.

### Substitute Refrigerants

EPA has developed a list of acceptable substitute refrigerants. The Significant New Alternatives Policy (SNAP) program only assesses the environmental impact and human health concerns of potential alternative refrigerants. It does not assess the effectiveness of substitution for CFCs and HCFCs. The latest SNAP list is available from EPA's Stratospheric Ozone Information Hotline at (800) 296-1996.

### Regulation Summary

- Knowingly venting refrigerants during service, maintenance, repair, or disposal of air conditioning or refrigeration equipment is prohibited.
- When opening air conditioning or refrigeration equipment, it must be evacuated to specified levels.
- Recycling and recovery equipment manufactured after November 15, 1993, must be tested by an EPA-approved testing organization (ARI or UL).
- Technicians (except those removing refrigerants from small appliances and MVACs prior to final disposal) performing services that could release refrigerants must be certified.
- Only certified technicians may purchase refrigerants.
- Businesses servicing or disposing of air conditioning or refrigeration equipment must certify to EPA that they have recycling or recovery equipment and are complying with requirements.
- Owners of air conditioning or refrigeration equipment with charges of greater than 50 pounds must follow leak repair requirements.

- Final processors in the disposal chain are responsible for ensuring, to the best of their knowledge, that refrigerant is recovered from equipment prior to disposal.

### References



*Compliance Guidance for Industrial Process Refrigeration Leak Repair Regulations Under Section 608 of the Clean Air Act U.S. EPA. EPA 300-B-95-010. October 1995*



*Memorandum - Section 608 of Clean Air Act as it Applies to Scrap Recyclers. Ann Baily. November 16, 1994.*



*Memorandum - Questions Concerning EPA Interpretation of Disposal Regulations at 40 CFR Part 82, Subpart F. Ann Baily. May 3, 1995.*



*Memorandum - Clarification of May 3, 1995 Memorandum. Ann Pontius. August 16, 1996.*

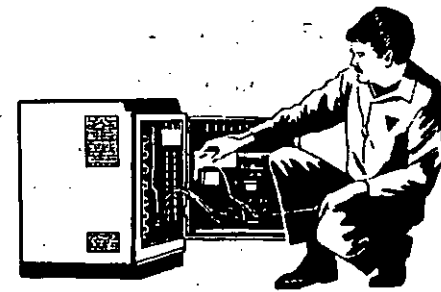
Additional publications and information (including the Federal regulations, fact sheets, applicability determinations, etc.) are available from EPA's Stratospheric Ozone Information Hotline at (800) 296-1996.

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# Responsible Practices: Servicing And Disposing of Refrigeration Equipment



**T**he video *Responsible Practices: Servicing and Disposing of Refrigeration Equipment* provides an overview of the regulations for the maintenance, service, repair, and disposal of air conditioning and refrigeration equipment. The video is not intended as a sole source of compliance information.

## Why are Regulations Needed?

The Earth's stratospheric ozone layer protects us from the sun's ultraviolet radiation. Chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) contribute to the depletion of the ozone layer which could cause increased cases of skin cancers and cataracts and could damage food crops. To help protect the ozone layer, EPA established a National program for safely managing and disposing refrigerants and air conditioning and refrigeration equipment. This program is implemented under Section 608 of the Clean Air Act, the implementing Federal regulations are found at 40 CFR Part 82.

## Who is Regulated?

The regulations apply to everyone that owns, operates, maintains, services, repairs, or disposes any air conditioning or refrigeration equipment that uses CFCs, HCFCs, or their substitutes as refrigerants. The regulations prohibit venting, establish service practices, specify performance requirements for recovery and recycling equipment, establish certification requirements for equipment and technicians, and establish safe disposal practices. The regulations make it illegal to knowingly vent refrigerants into the atmosphere during the maintenance, service, repair, or disposal of air conditioning or refrigeration equipment. Limited exceptions are provided to this prohibition. Anyone that performs service activities that could reasonably release refrigerants to the atmosphere (e.g., adding or removing refrigerants from an appliance) must be certified by an EPA-approved program. Persons recovering refrigerant from small appliances or Motor

Vehicle Air Conditioners (MVACs) prior to final disposal do not have to be certified. There are four types of certification, depending on the type of equipment being worked on. Only certified technicians may purchase refrigerant.

## What Kind of Equipment is Needed?

Recovery only or recovery/recycle equipment must be able to evacuate refrigerants to specified standards. Limited exceptions are provided to these evacuation standards. Equipment manufactured after November 15, 1993 must also be tested by an EPA-approved organization (ARI or UL). Recovery equipment used to remove refrigerant from small appliances and MVACs prior to final disposal does not have to be tested but does have to meet the same performance standards. Businesses that service or dispose of air conditioning or refrigeration equipment must certify to their Regional EPA office that they have proper equipment and are complying with EPA regulations.

## What Do You Do With Recovered Refrigerant?

Recovered or recycled refrigerant can be returned to the same system being serviced or to another system owned by the same person. Otherwise, the refrigerant must be sent to an EPA-approved reclaimer.

## What if Equipment is Leaking?

Leaks in refrigeration systems with a refrigerant charge of more than 50 pounds must be repaired if refrigerant is leaking at or above specified trigger rates.

## How Do You Dispose of Refrigeration and Air Conditioning Equipment?

Refrigeration and air conditioning equipment that is dismantled onsite must have the refrigerant removed prior to disposal. Refrigerant contained in equipment that is disposed of with the charge intact (e.g., small appliances and MVACs) may be removed at any point in the disposal process. The person disposing of an appliance, or delivering it for recycling, must ensure that remaining refrigerant has been recovered. The final processor of a regulated appliance (scrap recycler, landfill operator), must either recover remaining refrigerant or take the steps required by the regulations to verify that remaining refrigerant was recovered. If the final processor does not recover refrigerant, it must verify that the refrigerant has been removed. This can be done by requiring signed statements from whom the appliance is obtained that all the refrigerant was recovered according to EPA regulations. These statements must include the date refrigerant was removed and the name and address of the person that recovered it. Alternatively, the final processor can establish contracts with persons delivering appliances specifying removal of refrigerant before final disposal.

Not all final processors accept regulated appliances. Some refuse to accept any equipment that may have contained CFCs; others may only accept such items after they have been crushed, flattened, or otherwise demolished and the safe disposal requirements no longer apply.

Some final processors may have internal procedures in place, such as an inspection program, to verify that refrigerant has been removed. The final processor can be found in violation of safe disposal regulations if a charged appliance is found beyond the last reasonable inspection point.

