GUIDANCE FOR SAFE HANDLING OF
REFRIGERANT-CONTAINING APPLIANCES/VEHICLES
AFTER NATURAL DISASTERS
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Federal environmental laws govern the handling and disposal of equipment containing refrigerants. This information is provided to help minimize the health, safety, and environmental risks associated with handling and disposing of air-conditioning and refrigeration appliances under the extraordinary circumstances following natural disasters.

It is illegal to knowingly vent or release refrigerants when disposing (or preparing to dispose) of a vehicle, small appliance (e.g., refrigerators, freezers, window air conditioners, or dehumidifiers), residential air conditioner, refrigerated trailer, or other refrigerant-containing equipment.

Chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) are ozone-depleting substances that are commonly used as refrigerants. Today, motor vehicles, small appliances, and residential air conditioners use substitute refrigerants, such as hydrofluorocarbons (HFCs), hydrofluoroolefins (HFOs), and hydrocarbons, which do not deplete the ozone layer, but have other environmental impacts. Federal requirements apply to the handling and disposal of equipment containing CFCs, HCFCs, and substitute refrigerants. These requirements are intended to reduce emissions of ozone-depleting and other harmful substances during appliance disposal. Once it is safe to access appliances, adequate measures must be taken during emergency situations to minimize release of and exposure to such materials during equipment handling and disposal.

You must use EPA-certified refrigerant recovery and/or recycling equipment. EPA-certified equipment will have a label from Environmental Testing Laboratories (ETL), the Air Conditioning, Heating, and Refrigeration Institute (AHRI) or Underwriters Laboratories (UL) stating which types of refrigerants the unit is capable of recovering.

Persons maintaining, servicing, or repairing equipment containing refrigerants are required to have a certification from an EPA-approved technician certification program. However, persons recovering refrigerant from small appliances (e.g., refrigerators, freezers, window air conditioners, or dehumidifiers) or motor vehicle air conditioners (MVACs) are not required to be EPA-certified if the refrigerant is being removed for the purpose of disposal of the vehicle or small appliance and the refrigerant will be sent for disposal or to an EPA-certified reclaimer.

The following webpages have information on disposal of appliances:

- MVACs: www.epa.gov/mvac
- Disposal of Small Appliances and MVACs: www.epa.gov/section608/stationary-refrigeration-safe-disposal-requirements
- Frequent Questions on Disposal of Small Appliances and MVACs: www.epa.gov/section608/frequently-asked-questions-about-safe-disposal-refrigerated-household-appliances

More information on the requirements for some types of equipment is included in this document below. Additional requirements exist for larger appliances, such as chillers, industrial process refrigeration and other stationary air-conditioning and refrigeration equipment. For more information, visit www.epa.gov/section608.

Recovery of Refrigerants from Motor Vehicle Air Conditioners and Small Appliances

Motor Vehicle Air Conditioners: An MVAC is the refrigeration equipment used to cool the driver/passenger compartment of any motor vehicle, including passenger cars, light duty vehicles, and heavy duty vehicles.

Small Appliances: These appliances, sometimes called "white goods", include refrigerators, freezers, window air conditioners, vending machines, and dehumidifiers. Some small appliances may contain flammable hydrocarbon refrigerants, which is indicated by a warning label on the unit and red refrigerant tubing.

Requirements for Recovery of Refrigerants from MVACs and Small Appliances

- Determine the type of refrigerant and the amount of refrigerant charge from the nameplate. To prevent mixing different types of refrigerants, use hand held refrigerant identifiers, if available.
- Using certified recovery equipment, evacuate the refrigerant to 0 psig. Recover the refrigerant into a container used only for that type of refrigerant. Do not mix refrigerants.
- Store recovered refrigerant by refrigerant type (e.g., R-22, R-134a, R-1234yf, etc.) in separate refrigerant recovery cylinders (identifiable by a yellow band around the top collar of the recovery cylinder). Use a "junk" or mixed refrigerant container if the refrigerant type is unknown or believed to be contaminated.
- A small number of appliances may contain a hydrocarbon refrigerant. That refrigerant may be released in a well-ventilated area if it can be determined that the appliance came from a residence and not a commercial facility.
- Provide a signed statement to the scrap recyclers or landfill operators that all refrigerant was properly recovered. Include the name and address of the person recovering the refrigerant and the date it was recovered.
- Deliver the recovered refrigerant to an EPA-certified reclaimer who will reprocess it for resale. A list of EPA-certified reclaimers is available on EPA's website: https://www.epa.gov/section608/epa-certified-refrigerant-reclaimers
- Alternatively, refrigerant recovered from an MVAC may be recycled by a certified MVAC technician using approved recycling equipment if it is to be sold for reuse in an MVAC.

Recovery of Refrigerants from Refrigerated Trailers and Residential/Light Commercial Air-Conditioners

Refrigerated Trailers: These include any transportable trailer or container placed upon a trailer that is equipped with a refrigeration system designed to refrigerate the cargo.

Residential/Light Commercial Air-Conditioning Equipment: These include packaged terminal air conditioners, central air conditioners, light commercial air conditioners, and heat pumps.

Requirements for Recovery of Refrigerants from Refrigerated Trailers and Residential/Light Commercial Air-Conditioners

- Refrigerant must be removed by a Type II or Universal technician who has been certified by an EPA-approved technician certification program.
- Determine the type of refrigerant and the amount of refrigerant charge from the nameplate on the appliance. To prevent mixing different types of refrigerants, use hand held refrigerant identifiers, if available.

- Using certified recovery equipment, evacuate the refrigerant to 0 psig. Recover the refrigerant into a container used only for that type of refrigerant. Do not mix refrigerants.
- Store recovered refrigerant by refrigerant type (e.g., R-22, R-410A, etc.) in separate approved refrigerant recovery cylinders (identifiable by a yellow band around the top collar of the recovery cylinder). Use a "junk" or mixed refrigerant container if the refrigerant type cannot be identified or is believed to be contaminated.
- Deliver the recovered refrigerant to an EPA-certified reclaimer who will reprocess it for resale. A list of EPA-certified reclaimers is available on EPA's website: https://www.epa.gov/section608/epa-certified-refrigerant-reclaimers.
- The company employing the technician must keep records of the location, date, and type of refrigerant recovered from residential and light commercial air conditioning equipment, as well as the total quantity recovered in a calendar month and the quantity sent for reclamation.

Additional requirements exist for larger appliances, such as chillers, industrial process refrigeration and other stationary air-conditioning and refrigeration equipment. For more information, visit www.epa.gov/section608.