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# Refrigerant Recovery from Motor Vehicles

Iowa Waste Reduction Center / University of Northern Iowa  
319-273-8905 or 1-800-422-3109

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**40 CFR 82 Subpart F**

**August 2005**

## *Do these regulations apply to my operation?*

These regulations apply to anyone performing service on motor vehicles when that service involves the refrigerant in motor vehicle air conditioners (MVACs).

## **General Requirements**

- Venting refrigerants to the atmosphere is prohibited.
- Reuse of recovered refrigerants is prohibited unless it has been recycled or reclaimed.

## *What are the Benefits of recovering refrigerants?*

- Maintain regulatory compliance.
- Help restore the ozone layer and protect people and the environment.
- Recycling cleans the refrigerant of the contaminants oil, air and water.

## **Definitions**

Recovery – to remove refrigerant in any condition from MVACs and store it in an external container without necessarily testing or processing it in any way.

Recycling – the use of a machine to remove impurities and oil and then recharge the refrigerant into either the same vehicle or a different vehicle. Recycling occurs in the shop.

Reclamation – the removal of all oil and impurities beyond that provided by on-site recycling equipment. Reclaimed refrigerant is essentially identical to new, unused refrigerant, meeting the standard of purity established by ARI Standard 700-1993, Specifications for Fluorocarbon and Other Refrigerants. Reclamation occurs at the manufacturing facility or a reclamation facility.

## **Regulatory Requirements**

### **Approved Refrigerant Recovery/Recycling Equipment**

- No one repairing or serving MVACs or MVAC-like appliances may perform service involving refrigerant for MVAC or MVAC-like appliances without using properly approved refrigerant recover/recycling equipment.
- Refrigerant recovery/recycling equipment must be approved by the EPA or an EPA-approved independent standards testing organization
- The EPA maintains a list of approved equipment by manufacturer and model.
- A current list can be obtained by calling the hotline 800-296-1996 or from the EPA website at <http://www.epa.gov/ozone/title6/609/technicians/appequip.html> .

## **Converting Equipment**

- Technicians are prohibited from changing fittings on the same recovery or recycling unit back and forth so that the same unit is recovering or recycling different types of refrigerant.
- Equipment that is converted for use with a new refrigerant must be able to meet the applicable equipment standards set forth in the regulations.
- Each new refrigerant must be used with a unique set of fittings to prevent the accidental mixing of different refrigerants.
- If the car is retrofitted for a different refrigerant, any service fittings not converted to the new refrigerant must be permanently disabled.
- Unique fittings must be permanently attached to the ends of hoses that attach to vehicle air conditioning systems and recovery or recycling equipment.
- A car designed to use a new refrigerant, or a car that is retrofitted, must have a label applied that gives specific information about the alternative refrigerant.
- The original refrigerant must be removed from the retrofitted system before charging with the new refrigerant.
- When using blends that contain HCFC-22, barrier hoses must be installed if the current system has non-barrier hoses.

## **Recovery and Recycling Blend Refrigerants**

- Technicians may permanently dedicate an older piece of equipment to recover blend refrigerants, contaminated CFC-12 and HFC-134a, and other unknown mixtures.
  - This equipment cannot be used to recover uncontaminated CFC-12 or HFC-134a.
  - Refrigerant recovered using this equipment must be shipped off site for reclamation or destruction
- Technicians may also use a new piece of EPA-approved equipment to recover, but not recycle, any single specific blend equipment.
- Blend refrigerants in MVACs may be recycled provided that the recycling equipment meets the Underwriters Laboratories (UL) Standard 2964, and the refrigerant is returned to the vehicle from which it was removed except for fleet vehicles with a common owner.
  - Blend refrigerant recovered from fleet vehicles with a common owner may be moved among vehicles in such a fleet.
- A current list of approved blends can be obtained by calling the EPA hotline at 800-2961996.

## **Flammable Refrigerants**

- The use of flammable refrigerants is not permitted.
- Refrigerants sold under the names of 'Duracool 12a,' 'HC-12a,' 'OZ-12,' 'Envirosafe,' 'MaxiFrig,' and 'Permafreeze' are flammable refrigerants and are not EPA approved substitutes.
- In addition, local fire codes often restrict the storage of flammable materials. Also federal, state, and local agencies may have regulations related to flammable refrigerants.

## **Technician Training Certification**

- No on repairing or servicing MVACs or MVAC-like appliances may perform service involving refrigerant without being properly trained and certified by an approved technician certification program.
- If a technician is already trained and certified to handle CFC-12, then the technician does not

need to be recertified to handle HFC-134a.

- If a technician is already trained and certified to handle CFC-12 or HFC-134a, then the technician does not need to be recertified to handle refrigerant blends.
- The EPA maintains a list of approved technician certification programs. A current list can be obtained by calling the EPA hotline at 800-296-1996 or from the EPA website at <http://www.epa.gov/ozone/title6/609/technicians/609certs.html>.

## **Certification Requirements**

- Anyone repairing or servicing MVACs shall certify to the EPA that each person has acquired and is properly using EPA approved equipment and that each person using this equipment has been properly trained and certified. A certification form can be obtained by calling the EPA hotline at 800-296-1996.
  - Certification will be a signed statement provided by the owner of the equipment of another responsible officer and will contain the name of the purchaser of the equipment, the address where the equipment will be located, the manufacturer and equipment model number, the date of manufacture, and the serial number of the equipment.
  - The certification will also contain a statement that the equipment will be properly used in servicing MVACs, that each person using the equipment is properly trained and certified, and that the information provided is true and correct.
- Certification is a one-time requirement. If an entity purchased refrigerant recovery/recycling equipment and submitted the certification to the EPA, the entity does not need to send a second certification to the EPA when it purchase a second piece of equipment, no matter what refrigerant that equipment is designed to handle. Certificates of compliance are not transferable. If ownership of an entity ever changes, the new owner shall provide the required certification within 30 days of the change of ownership.

## **Record Keeping**

- Anyone who owns EPA-approved refrigerant recovery/recycling equipment must maintain records of the name and address of any facility to which refrigerant is sent.
- Anyone who owns EPA-approved refrigerant recovery/recycling equipment must maintain records demonstrating that all persons using the equipment are properly trained and certified.
- If refrigerant is recovered and sent to a reclamation facility, the name and address of that facility must be kept on file.
- All records must be maintained for 3 years unless otherwise indicated.
- All entities, which service MVACs, must allow the EPA or a representative of the EPA entry onto the premises and give access to all records.

## **Sales Restrictions**

- No person may sell or distribute, or offer for sale or distribution, any substance for use as a refrigerant in a MVAC and that is in a container, which contains less than 20 pounds of the substance to anyone, unless it has been verified that the purchaser has been properly trained and certified. The only exception is that the purchaser intends the containers for resale only. The seller must obtain a written statement from the purchaser stating that the refrigerant is intended for resale only and the statement must include the purchaser's name and business address.
- Currently there are no restrictions on the sale of HFC-134a. EPA is considering a proposed rule, which, if promulgated, would place the same restrictions on the sale of HFC-134a as stated above for other refrigerants.

## **Public Notification Requirements**

Anyone who conducts retail sales of refrigerant in a MVAC, and that is in a container of less than 20 pounds, must prominently display a sign that states:

*'It is a violation of federal law to sell containers of Class I and Class II refrigerant of less than 20 pounds of such refrigerant to anyone who is not properly trained and certified to operate approved refrigerant recycling equipment.'*

