CHAPTER THREE

Waste Handling, Storage and Disposal Practices

Used Oils

State law requires that used oils be collected, stored and disposed of properly. Used oil from vehicle use usually contains contaminants such as lead, other heavy metals, and benzene. It can contaminate drinking water and is harmful to the environment. For these reasons, it is important to make sure used oil does not reach the ground or surface water.

Used oils* – include, but are not limited to, the following petroleum-based or synthetic lubricants:

- motor oil
- transmission fluid
- differential oil
- brake fluid
- power-steering fluid
- transaxle fluid

*Note: Refer to hazardous waste fact sheet *Managing Used Oil and Related Waste – for Generators* (#4.30).

If hazardous wastes have been mixed with used oils, the entire mixture is considered a hazardous waste. Hazardous wastes **cannot** be offered to used-oil collectors for recycling. (Please refer to the fact sheets *Basic Requirements for Businesses that Generate Hazardous Waste* (#1.00).)

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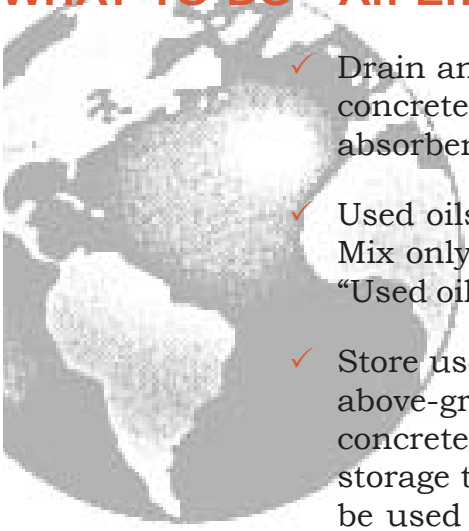
WHAT TO DO - An Environmental Checklist



- ✓ Drain and collect all oils on a covered and curbed, impermeable, concrete surface with spill controls, including drain-pans and absorbents.
- ✓ Used oils can be mixed together and stored in the same container. Mix only those fluids defined in the beginning of this section as "Used oils."
- ✓ Store used oil in leak-proof, closed containers, such as drums or above-ground storage tanks placed on a curbed, impermeable, concrete surface with spill controls. (Do not use underground storage tanks for above-ground storage. They are constructed to be used underground only.)
- ✓ Label all used oil storage containers "Used Oils."
- ✓ Regularly check all used-oil storage containers for leaks. (Please refer to the fact sheet *Documenting Container Inspections*, #2.41.)
- ✓ Keep outdoor storage containers closed and remove funnels after filling tanks. Failure to properly close the container may cause used oil to overflow.

Place storage containers on a curbed, impermeable surface.

- ✓ Remove oil from <u>all</u> engines. (Please refer to the section *Dismantling, Draining and Storage Practices - Engines,* on page 32.)

- ✓ Used oil may be recycled by: 1) filtering and reusing it on site in personal vehicles; 2) recovering and eventual re-refining by an oil hauler or fuel marketer; or 3) burning in an approved on-site heating unit.

1. **Reuse**: Used oil can be reused in vehicles if it has been filtered to remove metal particles and other contaminants.

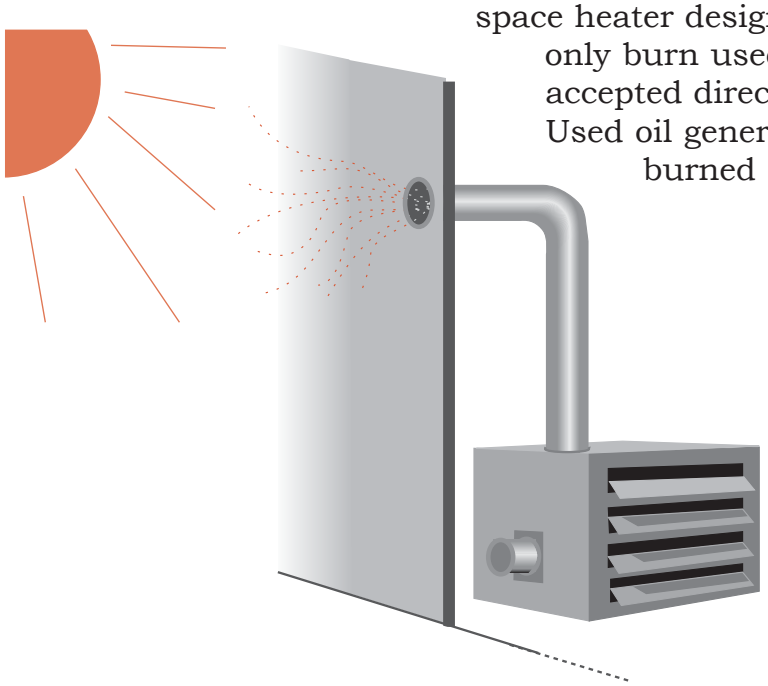
2. **Hauling:** Used oil can be removed from the facility (for recycling) by a licensed used-oil hauler or marketer. (Keep receipts of all shipments of used oil.) If the used oil has not been mixed with a hazardous waste, a hazardous-waste hauler or waste manifest is not required. (Please refer to the hazardous waste fact sheet *Used Oil Services, #6.00.*)

   Recycle used oil on a regular basis to avoid accumulating more used oil than your spill containment area can handle. A secondary spill containment area, such as a curbed, impermeable surface, must hold the volume of the largest tank stored on it. For instance, if you store four, 55 gallon drums of waste fluid on a curbed surface, the containment area must be capable of safely holding only 55 gallons of waste fluid, not 220 gallons.

3. **Burning on site**: Used oil can be burned on site in a space heater designed for that purpose. The heater must only burn used oil generated at the facility or accepted directly from "do-it-yourself" oil changers. Used oil generated by another business may not be burned at the facility unless it has been tested and found to meet regulatory standards. (Please refer to the fact sheets *Managing Used Oil and Related Wastes – for Generators,* #4.30.) The space heater requirements for burning used oil are:

   - The space heater must be rated at less than 500,000 BTU's per hour; and
   - The space heater must be vented outside.

Burning used-oil in an approved space heater is a great way to recycle petroleum-based waste fluids.



STOP! - Environmental Hazards

- Do not store oil in open or leaking containers.
- Do not pour used oil or allow it to drip or leak on the ground.
- Do not pour used oil down a drain or into sanitary or storm-water sewer systems or on-site septic systems.
- Do not leave oil storage containers open; remove funnels from oil storage drums or tanks. Close containers when not adding or removing oil.
- Do not use oil on roads to control dust.
- Do not use oil to control weeds.
- Do not burn used oil unless using an approved boiler, furnace or space heater.
- **CAUTION:** Do not mix antifreeze, solvents, gasoline, degreasers, paint or anything else with used oil.

Dented barrels make poor storage containers. They are unstable and at risk for leaks and spills. Place oil containers on a secondary storage surface that will contain the fluids should a spill occur. Remember to remove funnels and close containers!

RESOURCES

Minnesota Pollution Control Agency

Northeast Region (Duluth) (218) 723-4660
North Central Region (Brainerd) (218) 828-2492
Northwest Region (Detroit Lakes) (218) 847-1519
Southwest Region (Marshall) (507) 537-7146
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Automotive Recyclers of Minnesota

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Minnesota Technical Assistance Program

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For further information, please refer to the following fact sheets on the MPCA Web site http://www.pca.state.mn.us/waste/pubs/business.html :

Basic Hazardous Waste Requirements for Businesses (#1.00)

Burning Used Oil (#4.32)

Documenting Container Inspections (#2.41)

Managing Used Oil and Related Wastes – for Generators (#4.30)

Managing Towels, Wipes and Sorbents (#4.61)

Used Oil Services (#6.00)

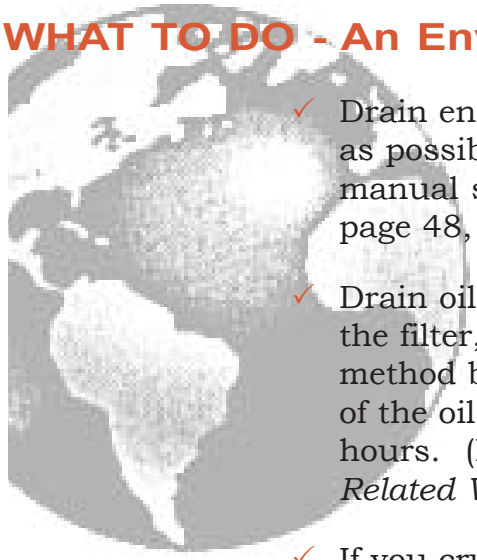
Also, refer to the following section in this manual:

Dismantling, Draining and Storage Practices – Engines Page 32

Used Oil Filters

Used oil filters are a potential source of pollution if engine oil from them is spilled during draining, crushing or storage. This section outlines environmentally safe steps for handling used oil filters.

WHAT TO DO - An Environmental Checklist



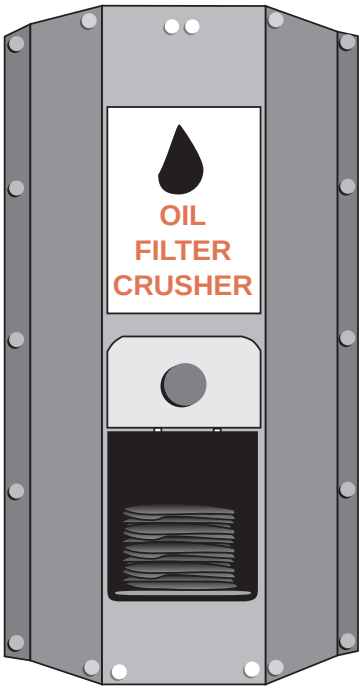
- ✓ Drain engine oil and remove used oil filters from vehicles as soon as possible after vehicles enter the facility. (Please refer to the manual section *Waste Handling, Storage and Disposal – Used Oils,* page 48, for information on managing used oil.)
- ✓ Drain oil filters of all free-flowing oil by poking holes in the top of the filter, and draining it with the filter threads facing up. This method bypasses the check valves in the filter, ensuring that most of the oil is removed. Oil filters should be drained for 12 to 24 hours. (Please refer to the fact sheet *Managing Used Oil and Related Wastes – for Generators.*)
- ✓ If you crush filters, use a crushing area with an impermeable surface.
- ✓ Store drained and crushed used oil filters in a closed, leak-proof storage container or on a curbed, impermeable, concrete surface.
- ✓ Recycle used oil filters that have been drained and crushed. These filters may be transported to a scrap-metal recycling facility. Oil filters should be transported in drums or large storage containers. Properly drained oil filters may be placed inside vehicles that are being transported to a scrap recycling facility, *provided there is an agreement with the recycling facility operator to accept drained oil filters in that manner.* Oil filters that have not been drained cannot be transported inside vehicles. Contact the recycler in your area for more information. (Please refer to the fact sheet *Used Oil Services,* #6.00.)

A stainless steel restaurant sink makes a good drainage area for small parts, such as oil filters and torque converters. Fluids drain into a bucket placed beneath the sink drain.

(continued)

(continued from page 53)

- ✓ Transport used oil filters in a way that will ensure that leftover oil is not dumped or dripped on the ground. To prevent oil leakage, transport used oil filters in a closed, leak-proof container.
- ✓ Keep receipts of used oil filter shipments.



Crushing removes excess oil left in an oil filter. Even a few teaspoons of excess oil add up when you consider that thousands of oil filters are removed daily at salvage yards throughout the state.

STOP! - Environmental Hazards

- Do not dispose of used oil filters in the trash. Oil filters may not be disposed of as solid waste under **any** circumstances.
- Do not drain, crush or store used oil filters on unprotected ground.
- Do not store used oil filters outdoors in uncovered containers.
- Do not recycle or dispose of used oil filters that have not been drained.

RESOURCES

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For further information, please refer to the following fact sheets on the MPCA Web site http://www.pca.state.mn.us/industry/ts-links.html#oilfilters

Managing Used Oil and Related Wastes – for Generators (#4.30)

Used Oil Services (#6.00)

Also refer to the following section in this manual:

Waste Handling, Storage and Disposal – Used Oil Page 48

Antifreeze

Used antifreeze, through contact with a car's cooling system, may contain traces of fuel, oil and metal particles (including lead), making it a possible hazardous waste. If not properly managed and stored, these pollutants can seep into soil and ground water, harming people and the environment.

WHAT TO DO - An Environmental Checklist

- ✓ Drain antifreeze from vehicles as soon as possible after they enter the facility. (Please refer to the section *Draining, Dismantling and Storage -Radiators,* on page 39 for information on draining antifreeze from radiators.)

- ✓ Determine whether the antifreeze is reusable or is a waste fluid. **Reusable antifreeze** is considered a product and can be used in facility vehicles, sold or given away. **Waste antifreeze** is antifreeze that is contaminated or too old to be reused. Test results have shown that used antifreeze may contain lead, benzene and other contaminants at levels that make it hazardous. Waste antifreeze is considered a special waste and must be disposed of according to special waste guidelines. (Please refer to the fact sheet *Pilot Project for Special Hazardous Waste – Generator Requirements, #2.22.*)

Over-sized funnels make transferring antifreeze and other waste fluids to storage containers easier – and reduce the risk of spills! Using a secondary containment unit around containers will capture any spilled fluids.

- ✓ Store antifreeze in closed containers on a curbed, impermeable surface with spill controls.

- ✓ Mark storage containers of antifreeze for recycling.

- ✓ Keep outdoor storage containers closed; remove funnels when not in use. Otherwise containers may fill with rain causing used antifreeze to overflow.

- ✓ Recycle reusable antifreeze using one of these methods:
  - Reuse: Antifreeze can be reused in facility vehicles or machinery, sold as used antifreeze or given away. (Reusable antifreeze can be filtered to remove undissolved solids. But filtration does not remove dissolved contaminants.) This antifreeze does not need to be recycled using the distillation or ion exchange methods listed below.
  - Distillation: Restores used antifreeze to a high level of purity.
  - Ion exchange: Restores used antifreeze to a high level of purity.

You may recycle antifreeze on site using a distillation or other acceptable recycling unit. Or, you can bring used antifreeze to a recycling service in your area. Some recycling services come to your site, recycle your waste antifreeze and leave the recycled product with you. When antifreeze is distilled, it may be able to be resold to service centers for use in some vehicles under warranty.

- ✓ Purchase distillation, ion exchange or filtration equipment for your facility or use an approved antifreeze recycling service to recycle used antifreeze. For a list of equipment and services, refer to the fact sheet *Managing Waste Antifreeze*, #4.02 on the MPCA Web site.
- ✓ Dispose of waste antifreeze according to the fact sheet *Managing Waste Antifreeze*, #4.02 on the MPCA Web site. You may discharge it to a drain connected to a wastewater treatment facility only if:
  - You generate less than 50 gallons per month;
  - The wastewater treatment facility is permitted by the MPCA and has agreed to accept it; and
  - You have submitted a Sewered Waste Notification Form to the wastewater treatment facility and received approval in writing.

Whenever practical, reuse and recycling are preferred over disposal.

STOP! - Environmental Hazards

- Do not store antifreeze in open or leaking containers.
- Do not pour antifreeze on the ground.
- Do not pour antifreeze down a drain connected to a storm sewer system or into an on-site septic system.
- Do not leave funnels in storage drums or tanks.
- Do not mix antifreeze with other fluids.

Do not mix wastes!
Combining hazardous and non-hazardous wastes will make the entire mixture hazardo and increase your disposal costs.

RESOURCES

Minnesota Pollution Control Agency

Northeast Region (Duluth) (218) 723-4660
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For further information, please refer to the following fact sheets on the MPCA Web site http://www.pca.state.mn.us/waste/pubs/business.html :

Basic Hazardous Waste Requirements for Businesses (#1.00)

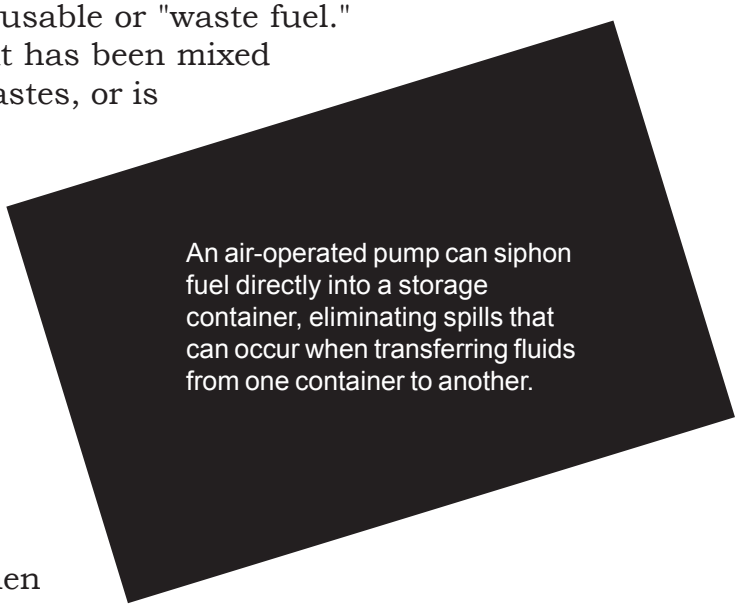
Managing Waste Antifreeze (#4.02)

Fuel

Used and waste fuel poses not only a pollution risk to motor vehicle salvage facilities, but also a safety risk to facility employees. Handling, storing and disposing of fuel requires special care to prevent spills, explosions and fires, as well as human health hazards from exposure to skin and inhalation.

WHAT TO DO - An Environmental Checklist

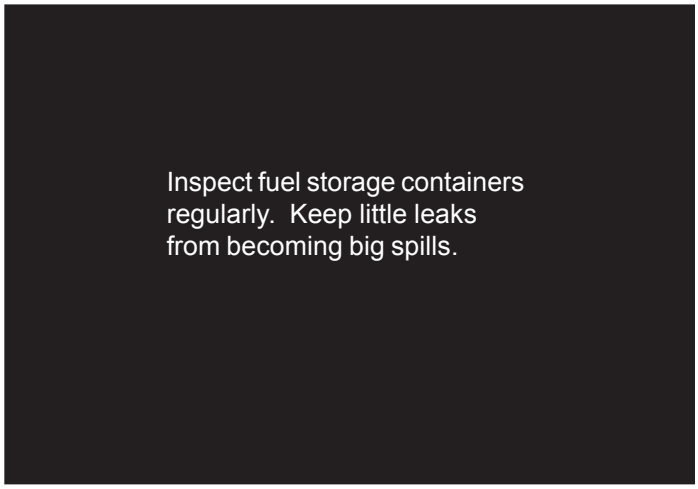
- ✓ Remove fuel tanks and drain fuel as soon as possible after vehicles enter the facility. (Please refer to the manual section *Draining, Dismantling and Storage Practices – Fuel Tanks,* on page 42.)
- ✓ Determine if fuel is reusable or "waste fuel." (Waste fuel is fuel that has been mixed with water or other wastes, or is too old to be reused.)
- ✓ Store reusable fuel in a tank on site for use in facility or employee vehicles, or siphon fuel directly from dismantled vehicles into facility vehicles using an air-driven pump.



An air-operated pump can siphon fuel directly into a storage container, eliminating spills that can occur when transferring fluids from one container to another.

- ✓ Follow these steps when managing **waste** fuel:
  - Store waste fuel in closed containers such as drums or above-ground storage tanks. Place containers on a covered and curbed, impermeable surface with spill controls.
  - Mark waste fuel-storage containers "Waste Fuel – Hazardous Waste." (Please refer to the fact sheet *Steps 4&5: Mark and Store Hazardous Waste Correctly,* #1.04/05.)
  - Record the accumulation start date on all waste-fuel storage containers.
  - Inspect storage containers weekly; record inspection results. (Refer to the fact sheet *Documenting Container Inspections*, #2.41.)

- Dispose of waste fuel with a licensed hazardous waste hauler. (Please refer to the fact sheet *Basic Hazardous Waste Requirements for Businesses(#1.00)* and *Step 6: Transport and Dispose of Hazardous Waste Correctly (#1.06)* on the MPCA Web site.)
- Follow all hazardous waste transport and disposal requirements when disposing of waste fuel.
  - ✓ Store diesel fuel separate from gasoline.
  - ✓ Keep storage containers closed and remove funnels when not in use.



STOP! - Environmental Hazards

- Do not store fuel tanks that still contain fuel.
- Do not mix fuel with other fluids.

RESOURCES

Minnesota Pollution Control Agency

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Basic Hazardous Waste Requirements for Businesses (#1.00)

Steps 4 & 5: Mark and Store Waste Correctly (#1.04/05)

Step 6: Transport and Dispose of Waste Correctly (#1.06)

Step 7: Manifest Shipments of Hazardous Waste

Document Container Inspections (#2.41)

Also, refer to the following section in this manual:

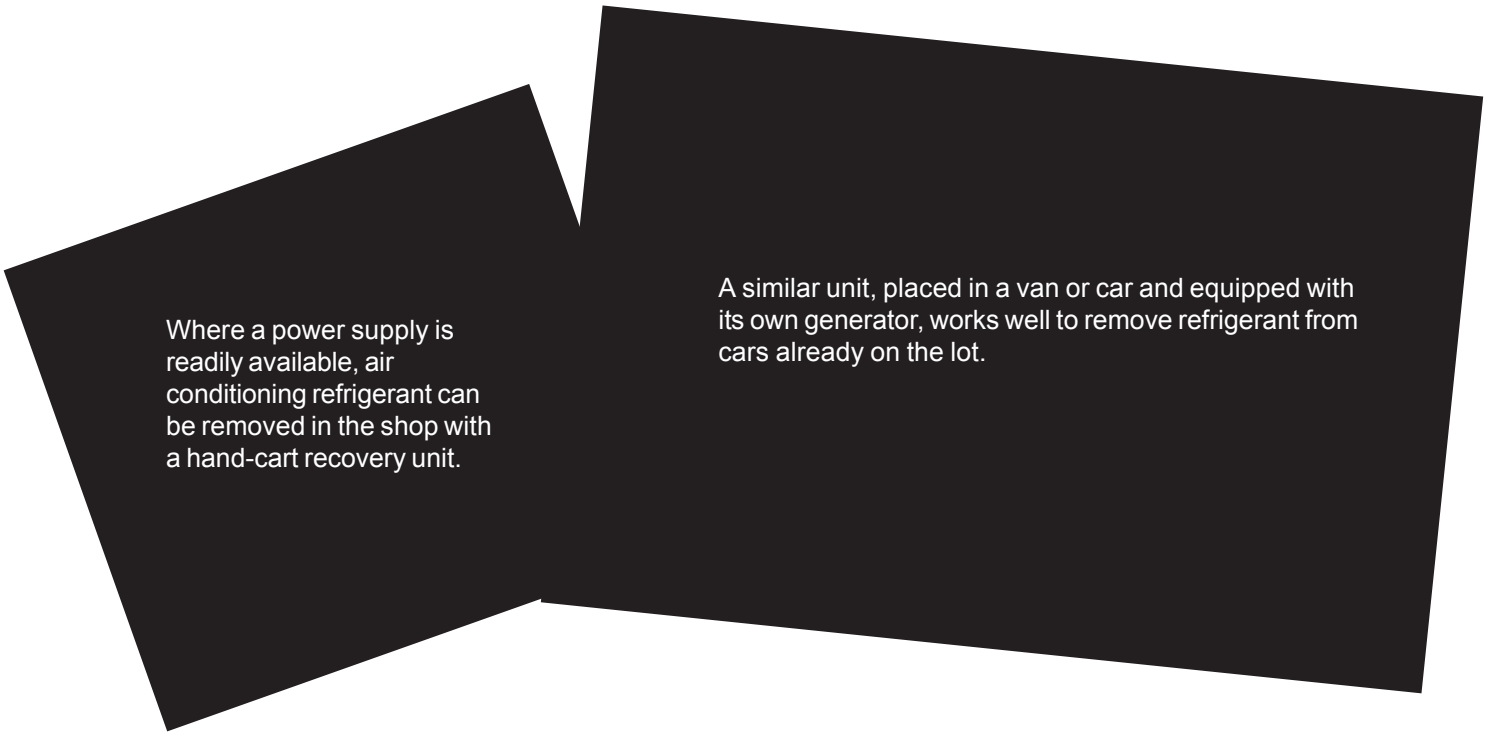
Draining, Dismantling and Storage Practices – Fuel Tanks Page 42

Refrigerant (CFCs)

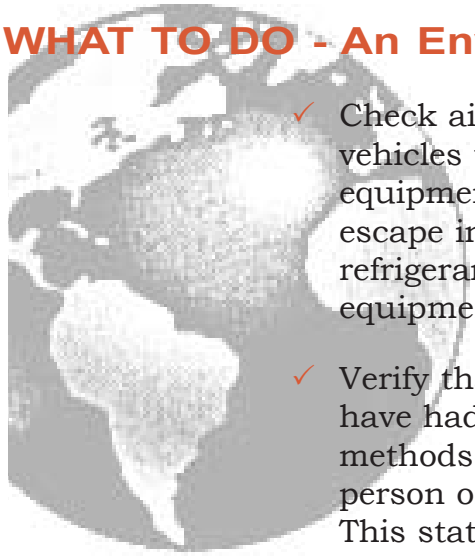
Refrigerant (Chlorofluorocarbons or CFCs) refers to various gases used in air conditioning units. Refrigerant is a pollution concern because it contributes to ozone depletion and is easily dispersed into the air during air-conditioning unit servicing or dismantling. Motor vehicle salvage facilities are required by the U.S. Environmental Protection Agency (EPA) to recover all refrigerant from vehicles that enter their facilities. Refrigerant is processed using the following methods:

Recovery - Removing refrigerant from air conditioning units and storing it in a container without testing or processing it.

Reclaiming - Processing refrigerant, usually by distillation, until it meets resale specifications. This requires a chemical analysis to see whether specifications have been met. (Please refer to the Air Quality fact sheets listed under *Motor Vehicle Air Conditioner Disposal* at the MPCA Web site: http://www.pca.state.mn.us/air/cfc-mvairdis.html



WHAT TO DO - An Environmental Checklist



- ✓ Check air conditioning units and remove refrigerant from all vehicles that enter the facility, using approved recovery equipment. Because a pressure gauge allows refrigerant to escape into the environment, assume that all units contain refrigerant and then remove it using approved recovery equipment.

- ✓ Verify that all vehicles entering the facility without refrigerant have had the refrigerant removed using approved recovery methods. Verification consists of a signed statement by the person or organization from whom the vehicles were received. This statement should include the name and address of the person who removed the refrigerant and the date it was removed. If refrigerant is not present because the air-conditioning unit was damaged or because of a vehicle's age or lack of use, verification must include a statement to that effect. Keep records for three years.

- ✓ Seal all air-conditioning unit openings and hoses after recovering oil to prevent any leftover oil from leaking out of the unit and contaminating components that may be reused.

- ✓ Store refrigerant in a tank that meets federal Department of Transportation (DOT) or Underwriters Laboratories (UL) standards.

- ✓ Sell refrigerant only to certified reclaiming facilities or CFC collectors who will reclaim it to its original purity specifications.

- ✓ Perform air conditioning repair work only if it is done by a certified motor vehicle air conditioning repair technician. Use approved recycling equipment and reuse refrigerant only in automobile air conditioning units owned by your facility.

- ✓ Supply documentation to scrap metal facilities that crush hulks, stating that the refrigerant was removed from vehicles using approved methods.

STOP! - Environmental Hazards

- Do not do anything that will release refrigerant into the air, such as cutting lines, disconnecting hoses or flattening vehicles before removing refrigerant.
- Do not over-fill storage tanks. Storage tanks should be filled to a maximum of 60 percent of the Gross Weight Rating listed on the tank, or 80 percent of the tank's rated volume at 70 degrees Fahrenheit.
- Do not release refrigerant from storage tanks.
- Do not sell recovered refrigerant to body shops or service stations for recycling without first having the refrigerant reclaimed.

RESOURCES

Minnesota Pollution Control Agency

Northeast Region (Duluth) (218) 723-4660
North Central Region (Brainerd) (218) 828-2492
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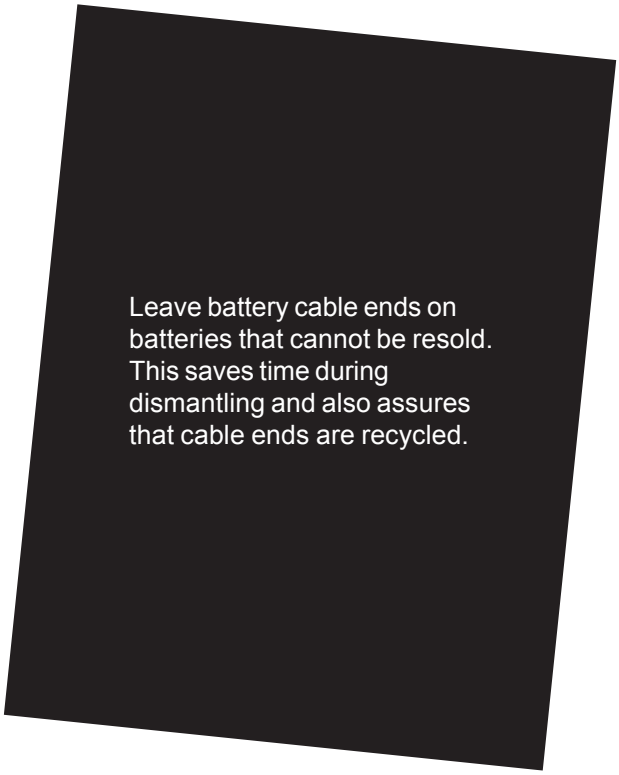
Lead-Acid Batteries

Used lead-acid batteries, which contain lead and corrosive chemicals, pose very real pollution risks and special handling problems at salvage yards. Improperly managed and stored batteries are not only a safety hazard, but can pollute the environment if they crack and leak, particularly when stored outdoors and when subjected to freezing temperatures.

WHAT TO DO - An Environmental Checklist

- ✓ Test batteries to determine usability or resale quality.
- ✓ Remove reusable batteries for resale. Also, remove lead cable ends from reusable batteries and store the lead parts in a covered container that is strong enough to hold the excessive weight of the lead. Please refer to the section *Waste Handling, Storage and Disposal Practices - Lead Parts,* on page 72.)
- ✓ Leave lead battery cable ends attached to scrap batteries for recycling.
- ✓ Immediately place cracked or leaking batteries in a closed, leak-proof storage container or on a curbed, impermeable **asphalt*** surface with spill controls, including drip-pans and lime.

***Note:** Unlike the storage of other wastes, sealed asphalt surfaces are best for battery storage because battery acid can degrade concrete. Asphalt should not be used as secondary containment for any other waste storage since other wastes, particularly antifreeze and petroleum products, can degrade asphalt.



Leave battery cable ends on batteries that cannot be resold. This saves time during dismantling and also assures that cable ends are recycled.

- ✓ Store batteries indoors. They must be stored in either a closed, leak-proof container or on a curbed, impermeable, asphalt surface with spill controls, including drip-pans and lime.

- ✓ If stored outdoors, the storage area should be covered to keep rainwater from collecting and to prevent contaminated run-off from occuring with rain and melting snow. (Please refer to the fact sheet *Managing Spent Lead-Acid Batteries - for Generators,* #4.06.)

- ✓ Store batteries on a "non-reactive" surface. This kind of surface may include the following:

  - Fiberglass or plastic "battery boxes" made specifically for battery storage. These can be purchased from local suppliers. (Contact your local trade association for suppliers in your area.);

  - A curbed, impermeable asphalt surface coated with acid resistant epoxy;

  - A covered wooden frame lined with heavy polypropylene plastic. Polypropylene is the least expensive plastic available. However, any heavy sheet plastic may be used (make sure there are no rips or tears);

  - A curbed, concrete surface coated with acid-resistant epoxy, fiberglass or plastic or lined with heavy polypropylene plastic;

  - Polypropylene cement-mixing tubs. These tubs, usually sold at lumber yards, are rectangular (2 feet by 3 feet) and can hold approximately 30 batteries; and

Keep batteries in one area of the facility.

Storing and charging batteries in one area decreases the chance of spills and leaks throughout the yard and helps you control inventory.

- Sealed five-gallon polypropylene plastic pails can be used to temporarily store leaking or cracked batteries.

✓ Store batteries in an upright position to prevent leaks from vent holes. Position batteries so that side post terminals do not contact each other.

✓ Stack batteries no more than five high. Batteries stacked higher may become unstable. Some facilities use wood between each layer of batteries to provide stability and to prevent terminal posts from puncturing the battery above.

✓ Spread an absorbent neutralizing material, such as lime or baking soda, in the bottom of battery boxes or battery storage bins to absorb and neutralize spilled battery acid. Dispose of used absorbent material as a hazardous waste.

✓ Inspect all batteries, storage containers and cover materials regularly for leaks, cracks or tears. Storage containers or materials that have been exposed to freezing temperatures should be checked more often.

✓ Manage all spilled materials and absorbents as a hazardous waste. (Please refer to the section *General Operating Procedures – Spill Control – Prevention and Clean Up*, on page 8.)

✓ Recycle at least 75 percent of all accumulated batteries each year with a licensed recycler. Facilities that do not recycle 75 percent of their batteries each year must meet additional storage requirements. (Please refer to the fact sheet *Managing Spent Lead-Acid Batteries – for Generators, #4.06.*)

✓ Transport used batteries for recycling using one of the following methods:

- Transport by a used-battery hauler (Please refer to the fact sheet *Managing Spent Lead-Acid Batteries – for Transporters,* #4.08.);
- Transport by a battery supplier; or
- Transport by the salvage facility

✓ Keep records to show that your facility is recycling used batteries. Include receipts with the license number of the recycling facility.

STOP! - Environmental Hazards

- Do not store batteries indoors or outdoors without proper spill protection. Batteries stored outdoors must be covered.
- Do not store batteries in vehicles; they can corrode and leak more easily.
- Do not over-fill storage containers. Batteries on the bottom may be crushed and the storage containers may become difficult to move.
- Do not accumulate batteries for a long period of time – recycle regularly!
- Do not drain fluids from batteries.

Randomly piling batteries can become an environmental hazard! Battery cases crack easily, especially when thrown into a pile. Cracked cases can leak lead into the soil. Rather, stack batteries neatly on an impermeable surface or in a container designed for that purpose.

RESOURCES

Minnesota Pollution Control Agency

Northeast Region (Duluth) (218) 723-4660
North Central Region (Brainerd) (218) 828-2492
Northwest Region (Detroit Lakes) (218) 847-1519
Southwest Region (Marshall) (507) 537-7146
Southeast Region (Rochester) (507) 285-7343
Customer Assistance Center
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Public Information Office
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Toll free at 1-800-657-3864
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Automotive Recyclers of Minnesota

26 East Exchange Street, Suite 500
St. Paul, Minnesota 55101
(651) 290-6262

Minnesota Technical Assistance Program

200 Oak Street, Suite 350
Minneapolis, Minnesota 55455-2008
(612) 624-1300

For further information, please refer to the following fact sheets on the MPCA Web site http://www.pca.state.mn.us/waste/pubs/business.html#specific

Managing Spent Lead Acid Batteries – for Generators

Managing Spent Lead Acid Batteries – for Transporters

Also, refer to the following sections in this manual:

Waste Handling, Storage and Disposal Practices – Lead Parts Page 72

General Operating Procedures – Spill Control – Prevention and Clean Up Page 8

Lead Parts

Lead is a well-known toxic substance and potential pollutant. Even though the phasing-out of leaded gasoline has reduced the levels of lead in the air and soil, other sources remain. Lead parts, such as battery cable ends, soldered tubing joints and tire weights, are often a forgotten source of lead pollution. The amount of lead found in a single BB or shotgun pellet is enough to contaminate an entire truckload of vehicle shredding "fluff," making it hazardous waste and requiring costly disposal methods.

WHAT TO DO - An Environmental Checklist

- ✓ Remove lead tire weights and battery cable ends before crushing vehicles. Battery cable ends may be left on unusable batteries and recycled along with the batteries.
- ✓ Remove other known sources of lead from vehicles. Lead can be found in radiators, heater cores, steering columns and in any soldered parts such as circuit boards and in electronic components.
- ✓ Store lead parts in a covered container that is capable of handling the excessive weight of the lead. Some facilities store lead tire weights with batteries in battery boxes. If you use this method, make sure weights are not placed under batteries or allowed to roll around in the box. (This practice makes stacks unstable and increases the possibility of puncturing the batteries.)
- ✓ Recycle lead parts with a metals or battery recycler. .

Lead, found in battery-cable ends, tire weights and soldered parts, is one of the most common pollutants found in soil at salvage yards and in auto "fluff" after vehicle shredding. Salvage facility operators must be thorough in removing all known lead sources from vehicles before crushing.

STOP! - Environmental Hazards

- Do not leave lead parts in vehicles. Make sure all lead parts are removed before crushing.
- Do not store lead parts on the ground.
- Do not store lead parts in uncovered containers.
- Do not dispose of lead parts in the regular trash.

Make sure your lead-part storage containers are capable of handling the excessive weight of lead. A metal bucket in good condition makes a good storage container.

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Managing Spent Lead-Acid Batteries – for Generators (#4.06) and

Managing Spent Lead-Acid Batteries – for Transporters (#4.08) located at http://www.pca.state.mn.us/waste/pubs/business.html#specific

Managing Scrap Metal, Catalytic Converters and Wheel Weights located at http://www.pca.state.mn.us/industry/ts-links.html#scrap

Mercury Switches

Mercury, a highly toxic metal, is often found in hood or trunk light switches. Liquid mercury and mercury vapor are hazardous to both humans and the environment. Once released into the environment, mercury cannot be eliminated — it will stay in the environment forever. Just one-half pound of mecury, the amount found in approximately 450 trunk or hood lights, has the potential to contaminate one-half million northern pike. Already, ninety-four percent of Minnesota lakes have mercury contamination at a level that limits human fish consumption. Removal of mercury switches from vehicles before crushing is an important part of managing your hazardous wastes.

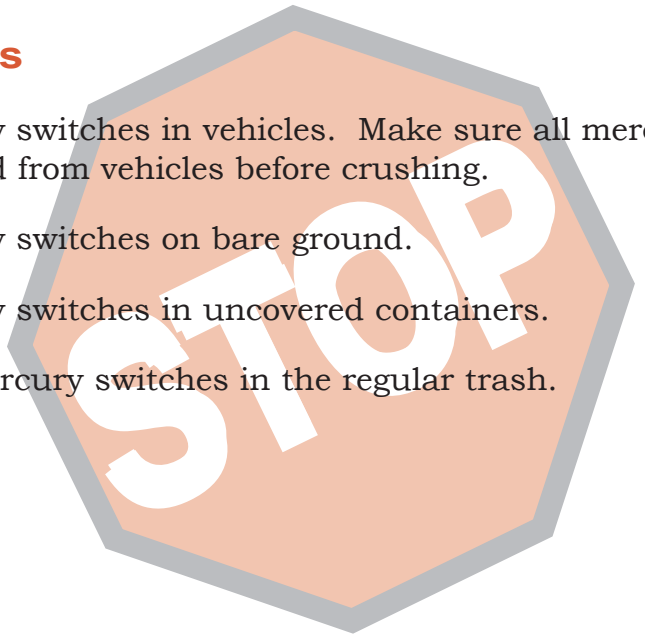
WHAT TO DO- An Environmental Checklist

- ✓ Remove all mercury switches from vehicles as soon as possible after they enter the facility.
- ✓ Be careful not to break or puncture the mercury capsule during removal.
- ✓ Store mercury switches in a leak-proof, closed container. The most important storage precaution is to store mercury switches in a way that prevents the capsule from breaking.
- ✓ Recycle mercury switches with a licensed metals recycler that reclaims mercury. (Contact your licensed metals recycler or call the MPCA for information on recycling mercury switches.)

Mercury-containing light switches have been found in vehicles built in the 1970s and 1980s, as well as in new cars. To be safe, remove all light switches from vehicles before they are crushed.

Be careful when handling trunk and hood switches to keep the small glass or metal capsules that hold the liquid mercury from breaking and releasing mercury into the environment.

STOP! - Environmental Hazards



- Do not leave mercury switches in vehicles. Make sure all mercury switches are removed from vehicles before crushing.
- Do not store mercury switches on bare ground.
- Do not store mercury switches in uncovered containers.
- Do not dispose of mercury switches in the regular trash.

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Waste Tires

Waste tires present two unique pollution and public-safety concerns: the potential for fires, and the possibility of providing a breeding ground for disease-carrying mosquitoes. Although waste tires do not ignite easily, once on fire, they burn very hot and are difficult to extinguish. Extinguishing methods are costly and can produce an oily run-off that can pollute soil and nearby surface and ground water. If improperly stored, tires may collect rainwater which can create an ideal breeding ground for mosquitoes.

The State of Minnesota addressed these issues in 1984 by developing a waste-tire management program to ensure the proper collection, transportation, disposal and processing of waste tires. Salvage facilities are required under these rules to manage tires in an environmentally safe manner.

WHAT TO DO - An Environmental Checklist

- ✓ Store waste tires in a sunny area. (Sunlight speeds evaporation of standing water and kills heat-intolerant mosquito larvae.)
- ✓ Store waste tires in a covered trailer, roll-off box or cage to prevent rainwater and melting snow from collecting. Water may also add weight and increase disposal costs.
- ✓ Store only small quantities of waste tires. Transport them regularly to a permitted waste-tire processor.
- ✓ Store no more than 500 waste tires on site at one time. If you plan on storing more than 500 tires, apply to the MPCA for a storage permit.

Many used tires can be resold. Recycle waste tires regularly to avoid storage problems. Store waste tires in roll-off boxes like the one pictured, which can prevent rainwater and melting snow from collecting in the tires.

- ✓ Facilities storing **less** than 500 used tires must follow these management practices:
  - Hire a transporter with a Minnesota Pollution Control Agency ID number to take your tires or take them directly to an MPCA-permitted processing facility; and
  - Keep waste-tire disposal records for at least three years.
- ✓ Facilities storing **more** than 500 used tires **must obtain a permit from the MPCA** and follow these management practices:
  - Limit individual stockpiles to 10,000 feet square by 20 feet high;
  - Establish fire lanes at least 50 feet wide between stockpiles;
  - Prohibit smoking and lighting of flames around stockpile area;
  - Work with local fire and police departments to develop an emergency response plan in case of fire;
  - Hire a transporter with a Minnesota Pollution Control Agency ID number to take your waste tires or take used tires directly to an MPCA-permitted processing facility; and
  - Keep waste-tire collection and disposal records for at least three years.

Clean and maintain tire processing equipment regularly. Dirty, poorly maintained equipment poses a pollution risk from greasy rainwater run-off or dripping oil.

STOP! - Environmental Hazards

- Do not store more than 500 waste tires at your facility without an MPCA storage permit.
- Do not store tires in shaded areas.
- Do not accumulate large quantities of waste tires. Transport them regularly to a permitted processor.

Waste tire piles are a fire hazard and make an ideal breeding area for disease-carrying mosquitoes. Manage tires carefully to prevent problems and the cost and liability that goes with them.

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For further information, please refer to the MPCA Web site:

http://www.pca.state.mn.us/industry/ts-links.html#tires

Catalytic Converters

Catalytic converters – which contain platinum, a valuable, recyclable metal – are seldom resold as parts by salvage facilities. Before they can be resold, catalytic converters must be tested using expensive equipment. Instead, most facilities recycle catalytic converters by selling them to core buyers or scrap recyclers.

WHAT TO DO - An Environmental Checklist

- ✓ Remove catalytic converters from vehicles as soon as possible after vehicles enter the facility.
- ✓ Recycle catalytic converters with a catalytic converter collection center.
- ✓ Test catalytic converters with federally-approved testing equipment if the converters are to be resold at the facility. Catalytic converters that have not been tested and approved in this manner cannot be sold to the public.

STOP! - Environmental Hazards

- Do not resell catalytic converters that have not been tested and approved. Catalytic converter are an important pollution prevention device designed for use with specific makes and models of cars. If untested and unapproved catalytic converters are installed on cars, they may not protect the environment from air pollution.

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For further information, please refer to MPCA Web site:

http://www.pca.state.mn.us/industry/ts-links.html#scrap

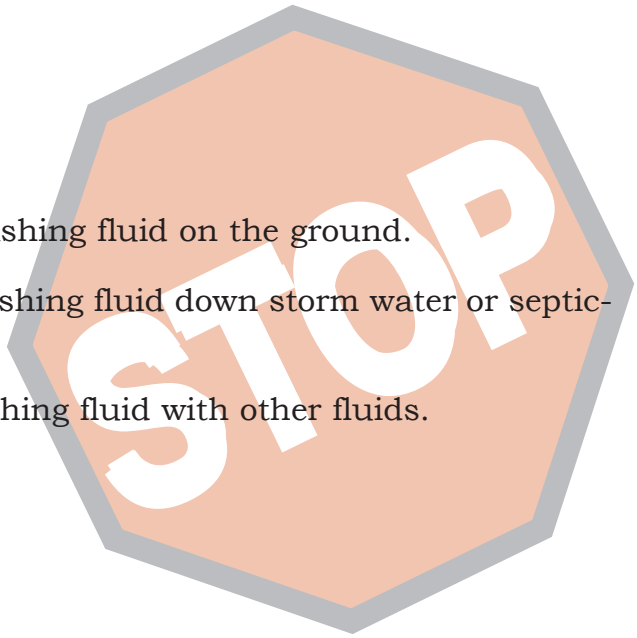
Window-Washing Fluid

Although window-washing fluid is mainly alcohol, water and detergent, it does contain small amounts of antifreeze and may mix with other wastes if not properly drained. Window-washing fluid should be carefully drained, stored and recycled to prevent pollution from spills.

WHAT TO DO - An Environmental Checklist

- Drain window-washing fluid from vehicles as soon as possible after they enter the facility.
- Reuse window-washing fluid in salvage facility or employee vehicles.
- Sell or give away re-claimed window-washing fluid to customers.
- Store window-washing fluid in covered containers on a curbed, impermeable, concrete surface with spill controls.

STOP! - Environmental Hazards



- Do not pour window-washing fluid on the ground.
- Do not pour window-washing fluid down storm water or septic-system drains.
- Do not mix window-washing fluid with other fluids.

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Appliances

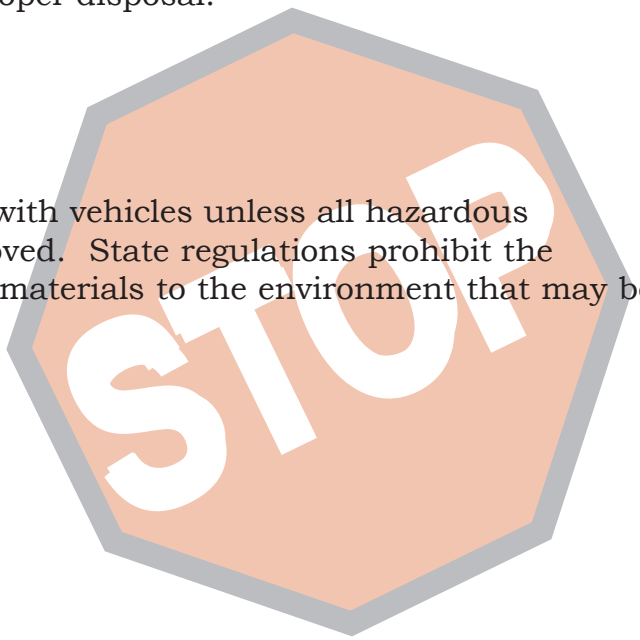
Major applicances, which are also known as "white goods," include clothes washers and dryers, dishwashers, hot-water heaters, garbage disposals, trash compactors, conventional and microwave ovens, ranges and stoves, air contitioners, refrigerators and freezers, residential furnaces and dehumidifiers. These appliances may contain hazardous or environmentally harmful materials such as polychlorinated biphenols (PCBs), chlorofluorocarbons (CFCs), mercury and other metals.

WHAT TO DO - An Environmental Checklist

- ✓ Contact your county solid waste coordinator or city recycling coordinator to find out how to reuse or recycle appliances in your area.
- ✓ Collection, storage or processing of appliances requires notification to the MPCA and the county solid waste or recycling coordinator.
- ✓ Removing CFCs from appliances must be done by a certified technician. This certification is different than that required for CFC removal from automobiles.
- ✓ The equipment used to remove CFCs must also be certified.
- ✓ If you process appliances, you are required to remove CFCs, mercury switches and PCB capacitors. You must keep detailed records of removal and proper disposal.

STOP! - Environmental Hazards

- Do not crush appliances with vehicles unless all hazardous materials have been removed. State regulations prohibit the release of any hazardous materials to the environment that may be present in appliances.



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http://www.pca.state.mn.us/air/cfc-apservice.html