



Vehicle Dismantling and Salvage

Environmental concerns related to vehicle dismantling

Vehicle dismantling and other salvage activities create environmental concerns including stormwater management and the potential for release of contaminants into the environment from certain vehicle components. This fact sheet will provide guidance from the Minnesota Pollution Control Agency (MPCA) to help you identify and manage these components properly.

Vehicle dismantling and salvage operations often accept other items which may release contaminants into the environment, such as appliances, consumer and business electronics (E-waste), and electrical power equipment. Find requirements and guidance for these items in the following MPCA fact sheets:

#w-hw3-02	Appliance Recycling	http://www.pca.state.mn.us/publications/w-hw3-02.pdf
#w-hw4-15	Managing Electronic Wastes	http://www.pca.state.mn.us/publications/w-hw4-15.pdf
#w-hw4-48a	Identifying, Using & Managing PCBs	http://www.pca.state.mn.us/publications/w-hw4-48a.pdf

Stormwater management

Almost all vehicle dismantling and salvage facilities in Minnesota must also meet stormwater management standards, either by obtaining a permit from the MPCA or by certifying that they meet the Conditional No Exposure Exclusion from the permitting requirement. You may find more information regarding applicable stormwater requirements on the MPCA [Stormwater Program for Industrial Activity](http://www.pca.state.mn.us/industrialstormwater) webpage, at <http://www.pca.state.mn.us/industrialstormwater>.

Hazardous and problem vehicle components

Most vehicles, including passenger automobiles, motorcycles, consumer and commercial trucks, and specialty vehicles such as agricultural, construction, and mining equipment, contain the following hazardous or problem vehicle components that must be identified and removed before the vehicle hulk is considered scrap metal in Minnesota:

- Accessory and modular electronics
- Airbags and seatbelt pre-tensioners
- Batteries
- Hazardous cabin and trunk contents, such as aerosols, motor oil, and windshield washer fluid
- High-intensity discharge headlamps and fluorescent lamps used in video display screens
- Mercury-containing switches and sensors, including lighting switches and anti-lock brake sensors
- Refrigerant from air conditioning and refrigerating systems
- Tires
- Wheel and drivetrain component balancers, including wheel, flywheel, and driveshaft weights
- Working fluids, including fuel, lubricants, hydraulic fluids, coolant, and windshield washer fluid

You may not crush or shred a vehicle hulk until all of these hazardous or problem components have been removed. After they have been removed, you may manage the stripped hulk as scrap metal and crush or shred it. Properly manage all of the removed hazardous components as discussed in the following sections.

Accessory and modular electronics

Remove accessory and modular electronics, including CD and DVD players, electronic audio components, engine control units, GPS units, and video display screens. If not sold for reuse, manage these electronic wastes (E-wastes) as discussed in MPCA hazardous waste fact sheet #w-hw4-15, [Managing Electronic Wastes](http://www.pca.state.mn.us/publications/w-hw4-15.pdf), available at <http://www.pca.state.mn.us/publications/w-hw4-15.pdf>.

Airbags and seatbelt pre-tensioners

Remove or deploy airbags and seatbelt pre-tensioners that operate by pyrotechnics or explosive chemical reactions. Ensure you identify and remove or deploy all airbags in a vehicle, including both dashboard and side impact airbags on both the driver and passenger side of vehicles. Check every seatbelt in the vehicle for pyrotechnic or chemical reaction pre-tensioners.

You may sell un-deployed airbags and seatbelt pre-tensioners for reinstallation as products. Un-deployed airbags and seatbelt pre-tensioners that you will not sell must be managed as a hazardous waste, even if they are shipped off-site for metal recovery. You may deploy airbags and seatbelt pre-tensioners in the vehicle or after removal without a permit from the MPCA if you follow the manufacturer's directions or industry standards for deployment. Deployed airbags and seatbelt pre-tensioners may be managed as scrap metal or solid waste.

Batteries

Remove all vehicle batteries, including electrical system and drive system batteries. Remember that hybrid-drive vehicles may have multiple battery systems located in different parts of the vehicle. Manage the removed batteries as discussed in MPCA hazardous waste fact sheet #w-hw4-62, [Managing Universal Wastes](http://www.pca.state.mn.us/publications/w-hw4-62.pdf), available at <http://www.pca.state.mn.us/publications/w-hw4-62.pdf>.

Hazardous cabin and trunk contents

Remove all potentially hazardous contents from the cabin, trunk, and any other storage spaces in a vehicle that is to be salvaged. Common hazardous contents found in the cabin or trunk of vehicles include products in aerosol containers, motor oil, and windshield washer fluid. Use the items that you can. Manage aerosol containers as discussed in MPCA hazardous waste fact sheet #w-hw4-00, [Managing Waste Aerosols](http://www.pca.state.mn.us/publications/w-hw4-00.pdf), available at <http://www.pca.state.mn.us/publications/w-hw4-00.pdf>. Manage other hazardous contents as discussed below in the 'Working fluids' section.

High-intensity discharge headlamps and fluorescent lamps

Remove all high-intensity discharge (HID) headlamps (those with no metal filament), commonly referred to as 'xenon lamps' or HID lamps, unless you document that they do not contain mercury. Also locate and remove any fluorescent lamps used as backlight for liquid-crystal display (LCD) screens. Manage the removed lamps as discussed in MPCA hazardous waste fact sheet #w-hw4-62, [Managing Universal Wastes](http://www.pca.state.mn.us/publications/w-hw4-62.pdf), available at <http://www.pca.state.mn.us/publications/w-hw4-62.pdf>.

Mercury-containing switches and sensors

Locate and remove all mercury-containing light switches and anti-lock braking sensors. Figure 1 and Figure 2 on the next page show common locations for these switches and sensors. Manage the removed switches and sensors as discussed in MPCA hazardous waste fact sheet #w-hw4-62, [Managing Universal Wastes](http://www.pca.state.mn.us/publications/w-hw4-62.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-62.pdf>.

Figure 1. Common locations for mercury-containing light switches

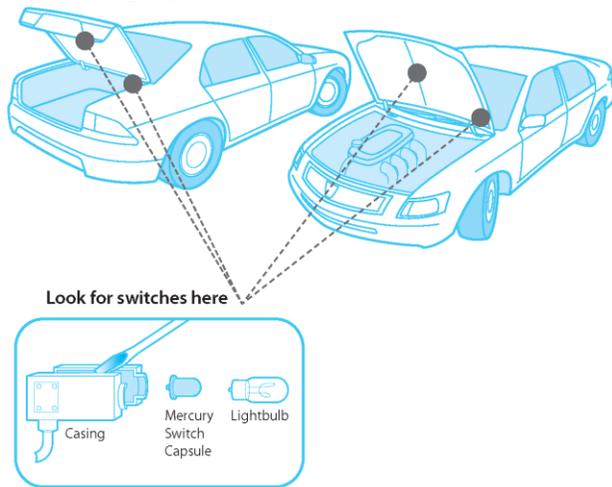
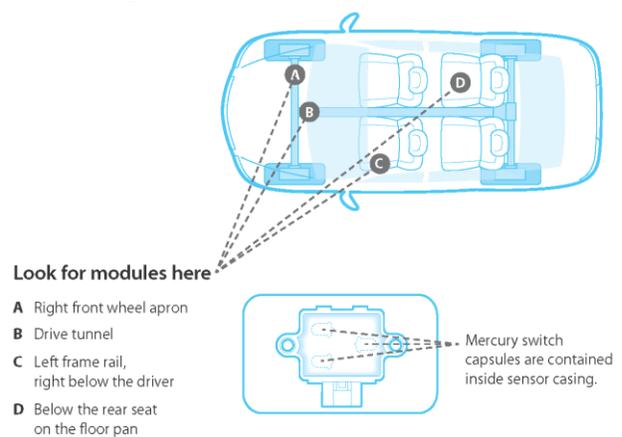


Figure 2. Common locations for mercury-containing antilock braking sensor modules



Refrigerant from air conditioning and refrigerating systems

Recover refrigerant that may contain chlorofluorocarbons (CFCs) from air conditioning and refrigeration systems. Do not vent refrigerants to the air. Follow the instructions to recover and manage CFC refrigerants from vehicles discussed on MPCA webpage [Chlorofluorocarbons \(CFCs\) and Motor Vehicle Air Conditioner Disposal](http://www.pca.state.mn.us/udgx4b5), at <http://www.pca.state.mn.us/udgx4b5>.

Tires

Remove all tires, including spare tires from trunks or underbodies. You may use or sell removed tires that may still be used safely as products. Manage waste tires as discussed in MPCA hazardous waste fact sheet #w-sw4-60, [Managing Waste Tires](http://www.pca.state.mn.us/publications/w-sw4-60.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-60.pdf>.

Wheel and drivetrain component balancers

Remove lead wheel weights from all wheel rims. Manage the removed weights as discussed in MPCA hazardous waste fact sheet #w-hw4-27, [Managing Scrap Metal](http://www.pca.state.mn.us/publications/w-hw4-27.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-27.pdf>.

Identify and remove any mercury-containing wheel and drivetrain balancers from wheel rims, drive shafts, and flywheels. These balancers often are shaped as a metal disc with a hollow pipe around the outer circumference. Manage removed mercury-containing balancers as 'mercury-containing equipment' as discussed in MPCA hazardous waste fact sheet #w-hw4-62, [Managing Universal Wastes](http://www.pca.state.mn.us/publications/w-hw4-62.pdf), available at <http://www.pca.state.mn.us/publications/w-hw4-62.pdf>.

Working fluids

Separately remove and collect each vehicle working fluid when dismantling a vehicle. You may also find Best Management Practices (BMPs) to properly collect and store waste vehicle fluids in MPCA hazardous waste fact sheet #w-hw4-18, [Managing Floor Drains and Flammable Traps](http://www.pca.state.mn.us/publications/w-hw4-18.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-18.pdf>.

If you remove each waste working fluid separately and follow the BMPs, you may manage each as discussed below. If you do not collect each working fluid separately, or allow them to mix, you must assume the mixture is a hazardous waste unless you test it and document it is non-hazardous. You may not manage an untested mixture of vehicle working fluids as used oil, used antifreeze, or recyclable fuel.

Ensure you capture and collect all working fluids that you remove from a dismantled vehicle. If you spill any working fluids on the ground, excavate and manage the contaminated soil as a waste based on what

spilled, or as a hazardous waste if an untested mixture of vehicle working fluids. Report all spills of hazardous waste immediately to the Minnesota Duty Officer.

Fuel

Drain residual fuel from fuel tanks, fuel pumps, and fuel lines. Manage the drained fuel as discussed in MPCA hazardous waste fact sheet #w-hw4-19, [Managing Fuel Wastes](http://www.pca.state.mn.us/publications/w-hw4-19.pdf) available at <http://www.pca.state.mn.us/publications/w-hw4-19.pdf>.

Lubricants and hydraulic fluids

Drain all lubricants and hydraulic fluids from crankcases, transmissions, brake systems, steering systems, and hydraulic systems, including all pumps and lines. Remove all filters and drain them. Manage all of these as used oil and related wastes as discussed in MPCA hazardous waste fact sheet #w-hw4-30, [Used Oil and Related Wastes](http://www.pca.state.mn.us/publications/w-hw4-30.pdf) available at <http://www.pca.state.mn.us/publications/w-hw4-30.pdf>.

Coolant

Drain all coolant, including radiators, pumps, lines, and the heater core. Manage the drained coolant as discussed in MPCA hazardous waste fact sheet #w-hw4-02, [Managing Waste Antifreeze](http://www.pca.state.mn.us/publications/w-hw4-02.pdf) available at <http://www.pca.state.mn.us/publications/w-hw4-02.pdf>.

Windshield washer fluid

Drain windshield washing fluid from all reservoirs, pumps, and lines. Manage the drained fluid by reusing it, if possible, or as an ignitable hazardous waste unless you test it and document it as non-hazardous. Do not discharge drained windshield washer fluid to a septic system or to the ground.

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Rules, Chapters 7027, 7035, and 7045. To review Minnesota Rules, visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs>.

For more information, contact your metropolitan county hazardous waste or nearest MPCA staff.

Metro County Hazardous Waste Offices

Anoka	763-422-7093
Carver	952-361-1800
Dakota	952-891-7557
Hennepin	612-348-3777
Ramsey	651-266-1199
Scott	952-496-8475
Washington	651-430-6655
Websites	http://www.co.[county].mn.us

Minnesota Technical Assistance Program

Toll free	1-800-247-0015
Metro	612-624-1300
Website	http://www.mntap.umn.edu

Small Business Environmental Assistance

Toll free	1-800-657-3938
Metro	651-282-6143
Website	http://www.pca.state.mn.us/sbeap/

Minnesota Pollution Control Agency

Toll free (all offices)	1-800-657-3864
Brainerd	218-828-2492
Detroit Lakes	218-847-1519
Duluth	218-723-4660
Mankato	507-389-5977
Marshall	507-537-7146
Rochester	507-285-7343
St. Paul	651-296-6300
Willmar	320-214-3786
Website	http://www.pca.state.mn.us

Minnesota Duty Officer

Toll free	1-800-422-0798
Metro	651-649-5451
Website	https://dps.mn.gov/