Mercury Switches

Potential Environmental Impacts

When mercury switches from certain hood and trunk lighting assemblies are not removed prior to compacting or shredding, mercury is released into the environment. Mercury is highly toxic to humans and the environment. It accumulates in the tissues of fish and other organisms in mercury-contaminated water and may be carried up the food chain to humans. Removal and proper management of the mercury switches in vehicles destined for salvage is an important part of keeping mercury out of the environment.



Mercury switches removed from vehicle light assemblies

Legal Requirements

Mercury switches that are removed from a vehicle are regulated as universal wastes and must be managed and disposed of in accordance with the <u>Universal Waste</u> requirements. See Appendix A for more information. You may have more mercury in your shop than you think: thermostats, fluorescent lights and other lamps (sodium vapor, metal halide and high intensity discharge lamps, including the blue-tinted HID headlamps) can all contain mercury and must be disposed of as Universal Waste.

Where are mercury switches located in a vehicle?

Vehicle trunk and hood light switches in cars manufactured before 2002 may contain mercury. Most cars containing mercury switches are American makes and models. For information on the known makes and model of vehicles that contain mercury switches, go to the End of Life Vehicle Solutions (ELVS) website. The ELVS website also has information on how to recycle mercury switches.

In addition to the mercury switches in convenience lighting, some relays may contain mercury switches to activate airbags, anti-lock brakes (primarily found in four-wheel drive vehicles), some seat belt systems, and some automatically adjusting suspension systems. Some agricultural equipment, military



Hood light fixture with mercury switch assembly

vehicles, mass transit vehicles, and fire hook and ladder equipment also contain mercury switches.

How are the switches removed in dismantling operations?

- Cut the power supply wire attached to the base of the switch assembly.
 - Remove any fasteners in order to separate the entire assembly from the vehicle.

- Carefully remove the mercury switch from the assembly. If the switch cannot easily be removed, put the entire assembly in the collection container. Removing the switch from the assembly will save storage space and may also save on disposal costs.
- If the switch or the assembly looks damaged or corroded, place the switch or entire assembly in a separate plastic container, like a yogurt tub with a tight fitting lid, to prevent leakage.
- ◆ For additional information on how to locate and remove switches from specific makes and models and on the Best Management Practices, go to the <u>ELVS</u> website.

Best Management Practices

- ★ Remove the mercury switches before the vehicle is junked or crushed. This can be
 - done at the same time as removal of vehicle fluids, batteries, refrigerants and non-deployed airbags.
- ★ Do not place the switches in a metal container (like an aluminum or tin can) because mercury may combine with the metal and leak through the seams. Use a plastic container instead.
- ★ The switches are very small and easy to inadvertently put in clothes pockets and end up in the trash or wash. Educate your staff so that they understand switches are hazardous waste and should be placed in the collection container immediately after removal.

For more information, call DEEP's Waste Engineering and Enforcement Division at 888-424-4193.



Proper storage of mercury switches

Pollution Prevention Checklist

✓ Do you remove mercury switches from vehicles before they are junked or crushed?

Did You Know?



One pound of mercury (about two tablespoons) is enough to contaminate almost two million pounds of fish. (Source: NEWMOA and MA DEP)

DISCLAIMER: This guidance is a tool to help you evaluate compliance at your facility. It is not a complete list of all regulations and requirements that may apply to your business. You are responsible for knowing and complying with all updated applicable state, federal, local and tribal requirements. Please be aware that environmental laws and regulations, as well as process technology may have changed significantly since these were published. Please do not rely on them for current information, but rather to provide background information.

Connecticut Department of Energy and Environmental Protection, Office of Pollution Prevention, 860-424-3297. Published 2014, Links updated January 2023

<u>Vehicle Repair and Body Shops P2 Fact Sheet Index</u>