

A Collaborative Approach to Reducing Mercury Air Emissions

What Is the

National Vehicle Mercury Switch Recovery Program?

The National Vehicle Mercury Switch Recovery Program is designed to remove mercury-containing switches from scrap (or retired) vehicles. These switches were used for convenience lighting in hoods and trunks and in some anti-lock braking systems of many vehicles manufactured prior to 2003. The program, which will complement existing State mercury switch reduction efforts, will help to reduce up to 75 tons of mercury emissions over the next 15 years. It is the result of a two-year collaboration involving EPA, States, environmental organizations, and several industry sectors.

The National Vehicle Mercury Switch Recovery Program provides incentives for dismantlers to remove mercury-containing switches from scrap vehicles before they are shredded and used to make new steel. Once the vehicles are crushed, it's too late. The opportunity to remove mercury in the recycling stream is lost.

How Significant is the Problem?

While automakers have phased out the use of mercury-containing switches, today's automobiles can have a long street life. As such, many of these vehicles may still be on the road. Others may be off the road and headed to scrap yards. Overall, an estimated 67 million switches are available for recovery.

Why Remove Mercury Switches?

Vehicles are the most recycled consumer goods in America. Each year, the steel industry recycles more than 14 million tons of steel from old vehicles, the equivalent of nearly 13.5 million new automobiles. As a result, the steel industry is the largest consumer of recycled materials in the world.

How Will This Program Work?

A number of organizations and industry sectors have come together to address the problem of mercury-containing switches in automobiles. The key partners and some of their unique roles are summarized on the next page.

But the same recycling that saves energy and natural resources can lead to unintended mercury releases. As this figure shows, when cars are retired, most are processed by automotive dismantlers, also known as automotive recyclers. These dismantlers remove certain valuable parts for reuse and recycling. In most cases, the stripped-down vehicles are then flattened for shipment to scrap recyclers. Scrap recyclers shred the vehicles and produce scrap metal. Steelmakers purchase and melt the scrap metal to make new steel and steel products. If mercury switches were not removed from the recycling stream, a significant amount of that mercury can be released into the environment.



- Ten **automakers** created the End of Life Vehicle Solutions Corporation (ELVS), which will provide dismantlers with information and supplies needed for switch removal, collect and transport switches to proper recycling and disposal facilities, and track program performance.
- Participating **dismantlers** will remove mercury-containing switches and ship them to ELVS, giving the dismantlers the ability to market reduced-mercury scrap and earn recognition and certain financial incentives.
- Participating **scrap recyclers** will build awareness of the mercury switch removal program in their own industry and in the dismantling industry, which is their chief supplier of scrap vehicles.
- Participating **steelmakers** will educate and encourage their supply chain to participate, and will take steps to purchase scrap metal generated from participating dismantlers and recyclers that have removed the mercury-containing switches.

These industries will have support from participating environmental groups; the Environmental Council of the States (ECOS), the association representing state environmental agencies; and U.S. EPA. **The environmental groups** have agreed to publicly endorse the program; support outreach, education, and oversight related activities, and participate in the development and improvement of data collection efforts related to mercury recovery. **ECOS**, which provided extensive guidance and information to develop the program, will now take a number of steps to implement it. In addition, ECOS and the partners will work to coordinate this program with existing State programs and to provide services to States without such programs. Finally, **U.S. EPA** has committed to take the national program into account in future rulemaking affecting scrap metal-using industries, to share information broadly about the program and its benefits, and to assist in efforts to assess and improve it.

How Will We Know If the Program Is Working?

ELVS will make information about the program and its participants available on its website at www.elvsolutions.org. All of the program partners have agreed to regularly review the data and use it to make any necessary improvements.

Key Benefits

- **Protects public health** — working along with State programs will help cut up to 75 tons of mercury emissions over the next 15 years
- **Conserves energy and natural resources** — promotes automotive recycling and steel recycling
- **Maintains economic competitiveness** — supports numerous industries that produce and use scrap metal
- **Cost-effective** — costs far less per pound of mercury than conventional emission controls
- **Easy** — dismantlers can find and remove most switches within several minutes

What Else Is EPA Doing to Address This Problem?

The national program is one of several steps EPA is taking to reduce emissions from mercury-containing switches. Other steps include:

Regulating mercury air emissions — In 2007, EPA will propose a national emission standard for hazardous air pollutants for Electric Arc Furnaces, which are used by many steel mills to melt scrap metal. EPA plans to propose options allowing steel furnaces to use mercury-reduced scrap that results from the national switch recovery program as a means of meeting mercury air standards. In the future, EPA also plans to propose revised rules regarding mercury emissions from other types of furnaces which use scrap metal to make steel and steel products.

Limiting future use of mercury switches — In June 2006, EPA proposed a rule that would impose requirements on any future use of these types of mercury-containing switches in passenger vehicles.

Addressing mercury disposal — Reusing mercury from switches and other products offsets resource-intensive mercury mining, but as industries find mercury alternatives, a global mercury surplus is expected. This year, EPA and other federal agencies will initiate a dialogue with technical experts and interested parties on options for disposing of surplus mercury.

Program Partners

- **The American Iron and Steel Institute** — www.steel.org
- **The Steel Manufacturers Association** — www.steelnet.org
- **The Automotive Recyclers Association** — www.a-r-a.org
- **The Institute of Scrap Recycling Industries** — www.isri.org
- **The End of Life Vehicles Corporation** — www.elvsolutions.org
- **Environmental Defense** — www.environmentaldefense.org
- **The Ecology Center** — www.ecocenter.org
- **The Environmental Council of the States** — www.ecos.org
- **The Environmental Protection Agency** — www.epa.gov

For More Information

For more information, please visit www.epa.gov/mercury or contact any of the program partners listed above.