



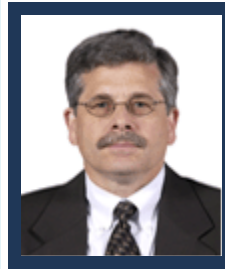
End-of-Life Vehicle Solutions Corporation
2006 Annual Report

INFO@ELVSOLUTIONS.ORG

End-of-Life Vehicle Solutions Annual Report

Message from the President

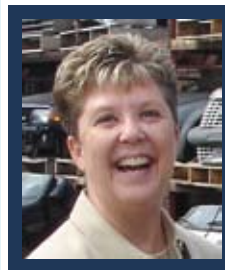
End-of-Life Vehicle Solutions Corporation (ELVS) efforts to implement mercury switch collection programs nationwide are off to a promising start. Thanks to the cooperation of individual dismantlers, the American Recycling Association, the Environmental Council of the States, the U.S. Environmental Protection Agency, the steel industry, many state agencies, and other stakeholders, ELVS surpassed our goals for program roll-out in 2006. Programs are operational in 25 states, covering nearly 70 percent of the vehicles in the nation. We look forward to implementing programs in the remaining states in 2007, followed by a shift in our focus to optimizing our switch collection efforts.



Richard W.
BELL

Message from the Executive Director

2006 was a busy year for ELVS. The milestone event was, of course, the signing of the National Vehicle Mercury Switch Recovery Program (NVMSRP). The NVMSRP partnership will be a great asset in helping to expand our efforts to collect and recycle automotive mercury switches. As of December 2006, we had nearly 4,000 participants and collected more than 240,000 switches. We look forward to continuing the expansion of the NVMSRP across the country with our partners.



Mary J.
BILLS



Corporate Overview

Auto recycling is a great story that is seldom heard. Roughly 95 percent of vehicles retired from the vehicle fleet each year are processed for recycling, with about 83 percent of a vehicle's material content being recycled. Approximately 10 million autos were scrapped in 2005, creating vibrant businesses that salvage useful parts and recycle vehicles. We should all be proud that automobiles are the most recycled consumer product in the United States.

The purpose of ELVS is to act on behalf of participating vehicle manufacturers to enhance vehicle recyclability by managing all programs to collect and recycle mercury switches nationwide.

ELVS is a nonprofit organization created in the 4th quarter of 2005 as the single point of contact for switch collection programs. ELVS' efforts have built upon successful state programs in Wisconsin, Minnesota, Michigan, Colorado and other states.

ELVS' members include BMW of North America, LLC; DaimlerChrysler Corporation; Ford Motor Company; General Motors Corporation; International Truck & Engine; Mack Trucks, Inc.; Mitsubishi Motors North America, Inc.; Nissan North America, Inc.; Subaru of America, Inc.; Volkswagen of America, Inc.; and Volvo Trucks North America.

ELVS members are also actively reducing their use of substances of concern in their product design processes to enhance future vehicle recyclability.

- **BMW of North America, LLC**
Frances McCaffrey
- **DaimlerChrysler Corporation**
Ross Good
- **Ford Motor Company**
Rich Bell
- **General Motors Corporation**
Jodi Theut
- **International Truck & Engine;
Mack Trucks, Inc.;
Volvo Trucks North America**
Rick Van Laar
- **Mitsubishi Motors North
America, Inc.**
Anita Rajan
- **Nissan North America, Inc.**
Sloan LeMauns
- **Subaru of America, Inc.**
Brian DeAscentiis
- **Volkswagen of America, Inc.**
Karl Freund

Background on the Mercury Issue

Mercury is a global issue because it can be transported thousands of miles in the atmosphere before deposition. EPA's Mercury Study Report to Congress estimates that 3 percent of the total global mercury burden in the environment originates from U.S. sources [<http://www.epa.gov/mercury/report.htm>]. Between 50 and 75 percent of this 3 percent is caused by human activity, with the remaining amount originating from natural sources.

Autos are one of many sources of mercury in consumer products. Because mercury has special properties that make it ideal for electrical conductivity, it has been widely used in thermostats, chest freezers, washing machines, clothes irons, electric space heaters, silent light switches, florescent lamps, High-Intensity Discharge (HID) lamps, liquid crystal display (LCD) screens for laptop computers and televisions, and sump and bilge pumps. Industrial use of mercury has dropped significantly over the years as substitutes have been found.

Mercury emissions from steel furnaces, the pathway by which auto switch mercury can enter the environment, contribute to the United States' total mercury inventory. Therefore, ELVS members support shared responsibility programs to collect and recycle mercury switches when a vehicle reaches the end of its service life.

Mercury (Hg) In Vehicles

In the past, mercury switches were used in some autos for convenience lights and anti-lock brake sensors; and in trucks for luggage door convenience lights, hood and cab tilt applications, and auxiliary heater applications. By January 2003, vehicle manufacturers completed their voluntary phase-out of these switches in an effort to reduce mercury emissions. There are an estimated 30 million mercury switches remaining in vehicles on the road today.

Mercury continues to be used in other automotive applications such as HID headlamps, navigation displays, and family entertainment system displays. These applications use trace amounts of mercury (between 0.5 to 5 milligrams) containing 1/200th and 1/2000th of the mercury used in convenience light switches. Although these newer products do not show up on today's mercury inventory lists because of their very small contribution, ELVS' members are developing mercury-free substitutes for these applications as well.

“U.S. sources [of mercury] are estimated to have contributed about 3 percent [to global emissions].”

From EPA's Mercury website
www.epa.gov/mercury/reportover.htm

“...industrial demand for mercury has declined by about 75 percent between 1988 and 1996.”

From EPA's Mercury website
www.epa.gov/mercury/reportover.htm

“From 2001 to 2003, mercury usage in automobiles has decreased by more than 99%.”

Alliance of Automobile Manufacturers
submissions to the IMERC database

How ELVS Switch Collection Works

The first step in implementing an ELVS switch collection program in a state consists of developing a list of scrap recycling facilities, vehicle recyclers, salvage yards, and auto shredders to participate in the program. ELVS sends collection buckets with educational, training, and program materials to those on the list. Participants remove switches from end-of-life vehicles and put them in the bucket. When the bucket is full, or the state's retention time is met, participants ship the container free of charge to the Environmental Quality Company (ELVS' waste handler). Before sending a bucket to EQ, participants are instructed to contact ELVS for a replacement bucket to ensure they always have a bucket on hand. EQ receives the switches and dismantles them. The mercury pellets are then sent to a mercury retorting facility for recycling. EQ also collects the wiring and plastic housings from the convenience light assemblies for recycling.

Program Participants

One of the first challenges when implementing the program is obtaining an accurate list of participants within the state. Because many states do not have such lists, they must be compiled. This is done by utilizing available sources of information, and removing unrelated companies (towing, dealerships, body shops, etc.), as well as companies that are no longer in business. Much of this confirmation is done through phone calls.

For example, one state had a list of potential participants consisting of 1,879 companies. After verifying the list, there were 525 companies eligible to participate in the ELVS program. Developing these lists while implementing the program in several states has proved to be challenging.

Despite this challenge, EQ sent nearly 4,000 switch collection buckets to participants in 2006.



Collection buckets at EQ prior to shipping.



A collection bucket full of convenience light assemblies.

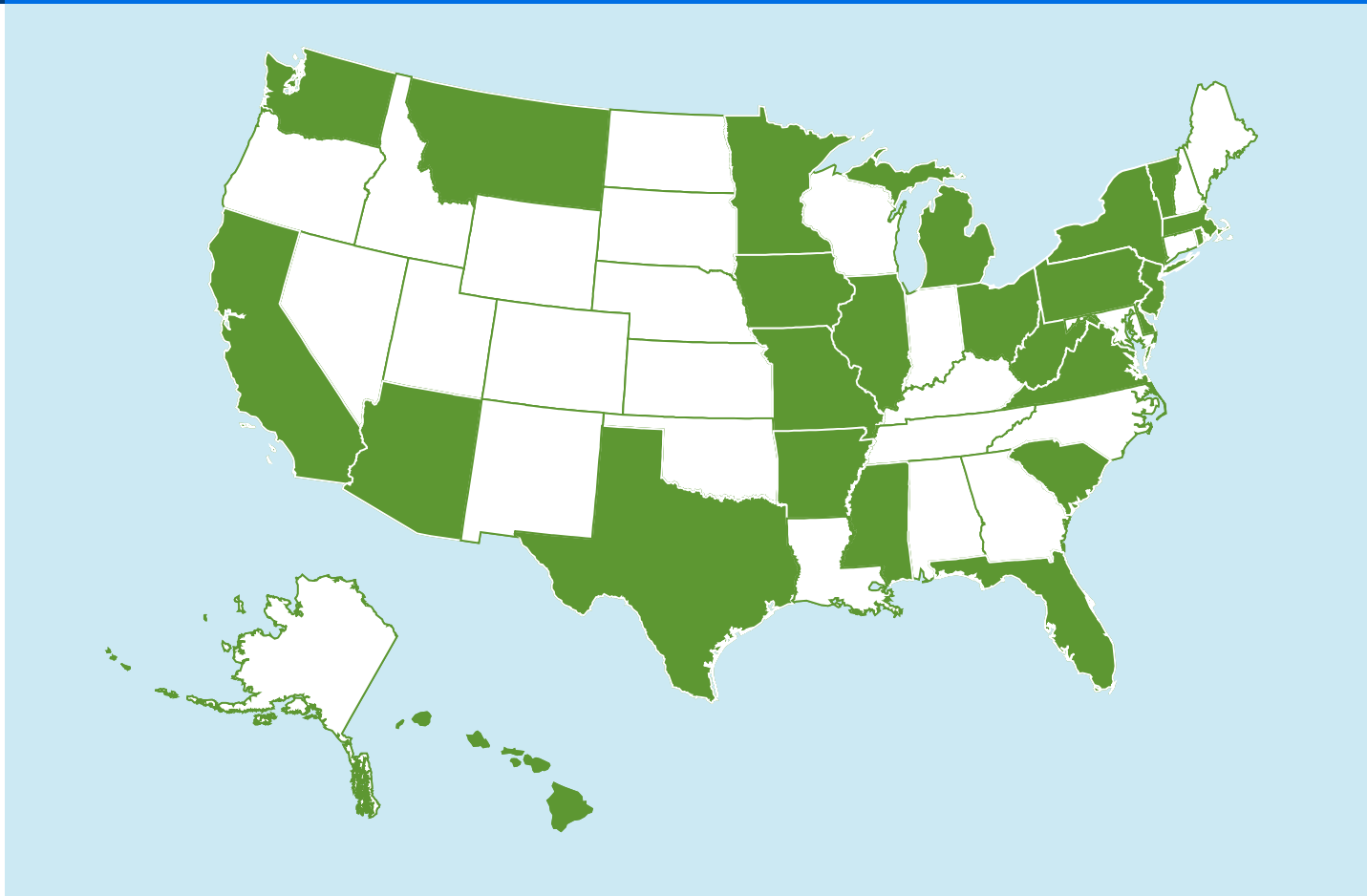


Mercury pellets removed from convenience light assemblies at EQ.



EQ shipping pellets to a retorting facility.

States participating in the ELVS mercury switch collection program (shown in green).



Results

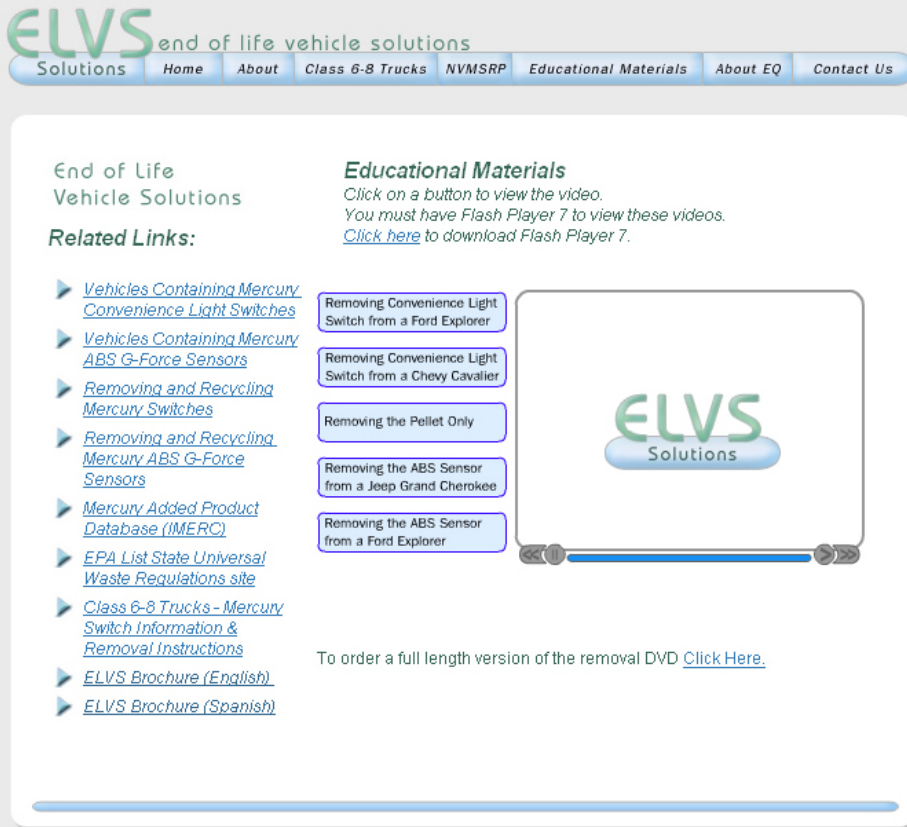
In 2006, approximately 240,000 mercury switches were received from program participants in 25 states. The mercury from these switches is estimated to weigh 530 lbs.

The number of switches collected is expected to increase significantly in 2007 since in many instances, it takes six to twelve months to fill collection buckets with switches.

This is an encouraging start considering that the majority of states joined the program in the 4th quarter of 2006. Our goal is to have the remaining states become part of the program in 2007.

Results for Implemented States

2006	Number of Participants	Total Switches Recovered	Total Mercury Recovered
All	3,786	239,633	527.19 lbs
Arizona	2	0	0.00 lbs
Arkansas	194	17	0.04 lbs
California	324	73,797	162.35 lbs
Delaware	15	0	0.00 lbs
Florida	110	1,418	3.12 lbs
Hawaii	15	0	0.00 lbs
Illinois	357	168	0.37 lbs
Iowa	346	223	0.49 lbs
Massachusetts	179	940	2.07 lbs
Michigan	73	45,890	100.96 lbs
Minnesota	181	2,517	5.54 lbs
Mississippi	33	801	1.76 lbs
Missouri	30	0	0.00 lbs
Montana	22	0	0.00 lbs
New Jersey	181	4,471	9.84 lbs
New York	401	83,866	184.51 lbs
Ohio	110	4,809	10.58 lbs
Pennsylvania	94	300	0.66 lbs
Rhode Island	78	346	0.76 lbs
South Carolina	25	0	0.00 lbs
Texas	630	2,271	5.00 lbs
Vermont	41	0	0.00 lbs
Virginia	199	1,119	2.46 lbs
Washington	142	16,680	36.70 lbs
West Virginia	4	0	0.00 lbs



ELVS website educational materials screenshot.

Education & Outreach

ELVS launched a website to provide participants with the most up-to-date information on switch recycling. The website contains education materials including detailed lists of vehicles that may contain mercury switches, information regarding universal waste, links to state specific requirements, and contact information.

In 2006, the website proved to be popular, with 38,717 successful hits and 2,646 visits recorded within a 30-day period.

- Vehicles containing mercury convenience light switches
- Vehicles containing mercury anti-lock brake sensors
- Removing and recycling mercury switches
- Universal waste regulations
- Videos illustrating switch assembly removal
- Videos illustrating pellet removal from switch assemblies

National Vehicle Mercury Switch Recovery Program

ELVS is a signatory to the National Vehicle Mercury Switch Recovery Program (NVMSRP). The NVMSRP is the result of a two-year collaborative effort involving EPA, vehicle manufacturers, the American Iron and Steel Institute, the Steel Manufacturers Association, the Institute of Scrap Recycling Industries, the Automotive Recyclers Association, Environmental Defense, the Ecology Center (Ann Arbor), and representatives of the Environmental Council of the States.

ELVS Executive Director Mary Bills
and U.S. EPA Administrator Johnson
at signing ceremony.



National Vehicle Mercury Switch
Recovery Program Signing Ceremony.

On August 11, 2006, these participating organizations signed an agreement to formally share responsibility to remove mercury-containing switches from retired vehicles. The information below, from EPA's website (<http://www.epa.gov/mercury/switchfs.htm>) describes the agreement.

"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:

- Eight vehicle manufacturers 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 rulemakings 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.

Comment from California about the NVMSRP:

"This national agreement is consistent with Governor Schwarzenegger's environmental goals to lead by example and ensure that state government is held accountable for environmental protection to the same extent as private entities. This program will benefit the environment by ensuring safe removal, collection and management of mercury switches found in end-of-life vehicles. This agreement is a true example of environmental stewardship in action."

California Department of
Toxic Substances Control Director
Maureen Gorsen



EPA Administrator Johnson discussing mercury switch collection.

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.”

The NVMSRP also established a \$4 million implementation fund in addition to the costs associated with running the program. It was subsequently decided to use this money to encourage dismantlers, recyclers, and shredders in participating states for their efforts by paying \$1 per mercury pellet received on a first-come, first-serve basis.

Conclusion

ELVS’ goal is to maximize the number of participants in the switch collection program by inviting all states to participate – even if there is another collection program available. We intend to maximize the number of switches recovered by working jointly with other parties to identify and implement program improvements on a state-by-state basis. In addition, we will continue to provide accurate and up-to-date collection information to aid in program evaluation.

We are confident that this effort will greatly reduce the amount of auto switch mercury entering the environment.

“In the past, EPA worked alone, mandating rules and regulations. Today, we know the ‘command-and-control’ approach only gets us so far. As we confront the challenges of the 21st Century, we recognize that we need additional tools in our environmental toolbox to deliver environmental results more efficiently and effectively.

This landmark program shows how we’ve combined a set of diverse tools – from product stewardship and supply chain management, to economic incentives and accountability – to meet our common goal of reducing the amount of mercury released into our environment. At EPA, we look forward to continuing our work with these partners as mercury switch recovery gets underway.”

EPA Administrator
Stephen Johnson

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