

**Department of Legislative Services**  
**Maryland General Assembly**  
**2007 Session**

**FISCAL AND POLICY NOTE**

Senate Bill 366 (Senator Dyson, *et al.*)

Education, Health, and Environmental Affairs

Environmental Matters

**Mercury Switch Removal from Vehicles**

This bill requires a vehicle manufacturer that sells motor vehicles in the State to develop a “mercury minimization plan” relating to mercury switch removal from vehicles. By December 31, 2007, the plan must be submitted to the Maryland Department of the Environment (MDE) for review and approval. The bill establishes requirements for the plan and provisions regarding plan approval and implementation. Among other things, manufacturers must pay at least \$4 per switch removed (\$1 to MDE and a minimum of \$3 to recyclers). MDE is authorized to adopt regulations regarding plan development and approval, and required to adopt regulations regarding plan implementation. Finally, the bill establishes enforcement provisions.

**Fiscal Summary**

**State Effect:** Special fund revenues could increase by \$65,100 in FY 2008 due to the switch removal fee; fee revenues would decrease over time due to the phase out of switches. General fund revenues could increase due to the bill’s penalty provisions. Special fund expenditures could increase by \$53,500 in FY 2008 for MDE administration. Future year expenditures reflect annualization and ongoing operating costs and assume the general fund would bear any costs not offset by fee revenue and fund balances.

(in dollars)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
GF Revenue	-	-	-	-	-
SF Revenue	65,100	58,000	50,700	44,300	38,500
GF Expenditure	0	0	20,700	31,200	40,600
SF Expenditure	53,500	69,000	51,400	44,300	38,500
Net Effect	\$11,600	(\$11,000)	(\$21,400)	(\$31,200)	(\$40,600)

*Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect*

**Local Effect:** Local revenues could increase due to the bill's penalty provisions for those cases heard in the circuit courts.

**Small Business Effect:** Meaningful.

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## Analysis

### Bill Summary:

#### *Plan Development and Approval*

The mercury minimization plan must contain:

- information identifying the make, model, and year of vehicles that may contain a mercury switch;
- educational material to assist a vehicle recycler or a scrap recycling facility to undertake a safe method for removal of mercury switches and assemblies;
- a proposal for the method of storage or disposal of mercury switches and assemblies, including the method of packaging and shipping;
- a proposal for the storage of mercury switches and mercury switch assemblies collected and recovered in the event that appropriate management technologies are not available;
- a plan for implementing and financing the system; and
- information that establishes the financing of the removal, collection, and recovery system for mercury switches.

Among other items that must be included in the information that establishes the financing, a vehicle manufacturer must pay for the costs associated with the removal, collection, and recovery of mercury switches and must establish a method to ensure the prompt payment to a vehicle recycler, a scrap recycling facility, and MDE. Costs paid by a manufacturer must include the following:

- a minimum of \$3 for each mercury switch or assembly removed by a vehicle recycler or scrap recycling facility, as partial compensation for the labor and other costs incurred; and
- \$1 for each mercury switch or assembly removed by a vehicle recycler or scrap recycling facility, as partial compensation for MDE for costs incurred in administering and enforcing the bill.

Within 60 days after receiving a mercury minimization plan, MDE must approve, disapprove, or conditionally approve the entire plan. If approved, the vehicle manufacturer must begin implementation within 120 days, or as otherwise determined by MDE. If the plan is disapproved, MDE must inform the manufacturer of the reasons for the disapproval, and the manufacturer has 30 days to submit a new plan.

MDE may approve parts of plans. The bill establishes provisions regarding the submission of revised plans for the disapproved parts. MDE must review and approve, conditionally approve, or disapprove a revised plan within 30 days.

After 120 days, if MDE has neither approved nor disapproved a plan, it would be considered conditionally approved. MDE may complete any portion of a plan that has not been approved by May 31, 2008. In addition, MDE may review an approved plan and recommend modifications at any time.

### *Plan Implementation*

Unless a mercury switch or assembly is inaccessible due to damage, within 120 days after plan approval, a vehicle recycler that sells, gives, or otherwise conveys ownership of an end-of-life vehicle to a scrap recycling facility for recycling must remove all mercury switches or assemblies identified in the plan from the vehicle before delivery to the scrap recycling facility. The capture rate goal must be at least 90%.

A scrap recycling facility may agree to accept an end-of-life vehicle that contains mercury switches under specified conditions. Such a facility must be responsible for removing the mercury switches or assemblies before the end-of-life vehicle is intentionally flattened, crushed, baled, or shredded.

On removal, mercury switches and assemblies must be collected, stored, transported, and otherwise handled as required by the approved plan and in accordance with specified provisions and regulations.

The bill establishes record-keeping requirements for vehicle recyclers and scrap recycling facilities that remove mercury switches or assemblies. The bill establishes annual reporting requirements for vehicle manufacturers regarding plan implementation. MDE may discontinue that reporting requirement if it determines that mercury switches in end-of-life vehicles no longer pose a significant threat to the environment or to public health.

### *Enforcement*

If a person violates any provision or regulation adopted in accordance with the bill's provisions relating to plan implementation, MDE may issue an order, impose an administrative penalty (of up to \$7,500 for a first offense, \$10,000 for a second offense, and \$25,000 for a third or subsequent offense), bring an action for injunction, and petition the Attorney General to bring a criminal action. The bill establishes notice requirements for MDE regarding such violations and establishes provisions regarding the request for a hearing. Any penalty imposed may be collected, with costs, in a summary proceeding in accordance with the procedures of the court. In any action for an injunction, the court may grant temporary or interlocutory relief.

A person who willfully or negligently violates the provisions regarding plan implementation is guilty of a misdemeanor and, on conviction of a first offense, is subject to a fine of at least \$2,500 but not more than \$25,000. For a second offense, the violator would be subject to a fine of at least \$5,000 but not more than \$50,000.

A person that knowingly makes a false statement, representation, or certification in any document filed or required to be maintained under the bill or that falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained is guilty of a misdemeanor and on conviction is subject to a fine of up to \$10,000.

**Current Law:** MDE's mercury program relates primarily to mercury-added products (dyes or pigments, electric switches, fluorescent lamps), thermostats, mercury fever thermometers, mercuric-oxide batteries, the use of mercury in schools, and public outreach and education. Chapter 494 of 2004 establishes prohibitions and requirements relating to the sale and reclamation or destination of mercury-added products. In general, unless a mercury-added product is labeled, a manufacturer or wholesaler may not sell the product at retail in the State or to a retailer in the State. Unless properly labeled, a retailer may not knowingly sell a new mercury-added product in the State. Beginning October 1, 2007, Chapter 56 of 2006 prohibits a marketer from selling or providing a thermostat containing mercury to a consumer.

**Background:** Each year, some 10 million vehicles are retired from useful life in North America. According to the Clean Car Campaign, mercury-containing switches account for more than 99% of the mercury used in automobiles, with each switch containing nearly one gram of mercury. According to a 2004 analysis by the Clean Car Campaign, in the U.S. alone, automobiles will be responsible for the environmental release of up to 493,000 pounds of mercury from the estimated 217 million switches installed in vehicles from 1974 through 2003. These releases will slowly decrease due to the phase-out of mercury switches in recent years. U.S. automakers indicate that all mercury switches were eliminated from new vehicles by the end of the 2002 model year. According to the Clean Car Campaign, international automakers stopped using mercury switches by 1993, following a ban on such uses in Europe. The European Union adopted a directive in 2000 which, among other things, establishes producer responsibility for the management of end-of-life vehicles and sets increased recycling requirements.

According to a recent model developed by the End of Life Vehicle Solutions Corporation (ELVS), the number of mercury light switches in end-of-life vehicles in Maryland is projected to decrease from 65,131 in 2007 to 12,480 in 2017.

In 2002, the Partnership for Mercury-Free Vehicles issued model state legislation addressing mercury switch removal from vehicles. Several states have enacted legislation addressing this issue. This bill was modeled after legislation enacted in Maine and New Jersey.

In August 2006, a coalition of organizations and industry sectors signed a Memorandum of Understanding regarding the National Vehicle Mercury Switch Recovery Program (NVMSRP) designed to remove mercury-containing switches from scrap vehicles. The program will terminate in 2017, when estimates indicate that 90% of the vehicle mercury switches will be retired. Maryland joined the NVMSRP in January 2007. MDE has partnered with ELVS (the NVMSRP contractor) and the Maryland Auto and Truck Recyclers Association to encourage vehicle recyclers and dismantlers to participate in the program. Under NVMSRP, a \$4 million fund has been established to reward dismantlers and recyclers on a first-come first-served basis for their efforts by paying \$1 per mercury light switch or assembly received and \$3 per antilock braking system module received. ELVS will provide educational materials and will collect and recycle switches at no cost to recyclers and dismantlers. According to MDE, Maryland recyclers and dismantlers would not be eligible to participate in NVMSRP if the State passes legislation establishing a mandatory program.

**State Revenues:** State revenues would increase by \$1 for each mercury switch or assembly removed by a vehicle recycler or by a scrap recycling facility. Based on current projections by ELVS, the number of vehicle mercury switches in end-of-life vehicles in

Maryland will decrease from 65,131 in 2007 to 38,476 in 2011. Accordingly, special fund revenues could increase by an estimated \$65,131 in fiscal 2008. Future year estimates reflect the decline in mercury switches in end-of-life vehicles over time due to the phase out of the switches by manufacturers. To the extent the number of switches in retired vehicles varies from the ELVS projections, revenues would vary correspondingly.

Legislative Services notes that the bill does not indicate where the fees collected by MDE would be deposited. However, because the stated intent of the fee is to partially compensate MDE for costs incurred in administering and enforcing the bill, it is assumed that they would be treated as special fund revenues.

General fund revenues could increase due to the bill's penalty provisions for those cases heard in the District Court. Any such increase cannot be reliably estimated at this time.

**State Expenditures:** Special fund expenditures within MDE could increase by an estimated \$53,484 in fiscal 2008, which accounts for the bill's October 1, 2007 effective date. This estimate reflects the cost of hiring one natural resources planner to review and approve mercury minimization plans, complete any plans not developed by manufacturers, draft regulations, review reports, and develop outreach materials. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses, including contractual services to print brochures for recyclers. The estimate assumes that existing staff will manage the fees collected from manufacturers and conduct enforcement activities.

Positions	1
Salary and Fringe Benefits	\$41,635
Travel and Contractual Services	8,153
Equipment/Operating Expenses	<u>3,696</u>
<b>Total</b>	<b>\$53,484</b>

Future year expenditures reflect: (1) a full salary with 4.5% annual increases and 3% employee turnover; and (2) 1% annual increases in ongoing operating expenses. Because future year expenditures are estimated to be higher than out-year revenue projections, it is assumed that the general fund would cover any costs not offset by fee revenues and fund balances. Based on the estimates above, the general fund would incur costs beginning in fiscal 2010. Legislative Services notes, however, that, because manufacturers have phased out the use of mercury switches in new cars, at some point, the program established by the bill would presumably be phased out.

**Small Business Effect:** Vehicle manufacturers are generally not considered small businesses. However, vehicle and scrap recyclers may be small businesses. These entities would incur costs to remove mercury switches and assemblies from end-of-life vehicles; store, transport, and handle switches once removed; and maintain associated records. The bill provides that manufacturers would be required to pay a minimum of \$3 per switch or switch assembly to vehicle recyclers and scrap recycling facilities as *partial* compensation for the labor and other costs incurred in the *removal* of the switch or switch assembly. It is unclear if this fee would cover *all* costs to recyclers, such as packaging, shipping, storage, and disposal. In 2004, the New Jersey Department of Environmental Protection estimated the cost of mercury switch removal, handling, transportation, and proper disposal to be \$3 per switch. However, some states require fees of \$5 per switch to be paid to recyclers.

According to MDE, its Recycling and Operations Program has a list of 216 vehicle recyclers and dismantlers in Maryland that have been encouraged to participate in the NVMSRP. If these entities participate in the NVMSRP, the only cost to them is the removal of the mercury switches and switch assemblies. The NVMSRP pays for all other costs associated with the packaging, shipping, transportation, and recycling of the switches. According to MDE, these entities would no longer be able to participate in the NVMSRP if this bill were enacted.

The extent to which a vehicle manufacturer would pass its compliance costs on to consumers in the form of higher prices is unknown.

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### **Additional Information**

**Prior Introductions:** Similar legislation was introduced as SB 1006/HB 1597 of 2006. SB 1006 passed the Senate and was referred to the House Environmental Matters Committee, which held a hearing on the bill. The House Environmental Matters Committee held a hearing on HB 1597, but no further action was taken.

**Cross File:** HB 418 (Delegate Hucker, *et al.*) – Environmental Matters.

**Information Source(s):** Maryland Department of the Environment, Maryland Department of Transportation, Office of the Attorney General, Clean Car Campaign, National Automobile Dealers Association, New Jersey Department of Environmental Protection, Maine Department of Environmental Protection, End of Life Vehicle Solutions, Department of Legislative Services

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