SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: Environmental Preservation Committee

BILL: SB 2446

INTRODUCER: Senator Alexander

SUBJECT: Management of Mercury Switches

DATE: March 28, 2006 REVISED: _____ _____ _____ _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Branning	Kiger	EP	**Favorable**
2.			TR	
3.			GA	
4.				
5.				
6.				

I. Summary:

This bill creates the "Mercury Switch Recovery Act." Provides definitions. Provides for the development of a mercury minimization plan by vehicle manufacturers. Provides for the implementation of the mercury minimization plan. Provides that manufacturers submit annual reports concerning the implementation of the mercury minimization plan and annual reports concerning the steps taken by manufacturers to design vehicles and components for recycling. Requires manufacturers to provide compensation to the vehicle recyclers for removal, storage, recycling, or disposal of mercury switches. Requires manufacturers to provide partial compensation to the Department of Environmental Protection (DEP) for administrative costs. Requires manufacturers to provide containers to the recyclers for the temporary storage of mercury switches that have been removed. Requires manufacturers to indemnify, defend, and hold harmless vehicle recyclers from liability arising from the release of mercury from the mercury switches after the switches are transferred free on board to the manufacturer. Requires the DEP to adopt rules.

This bill creates the following sections of the Florida Statutes: 403.7187.

II. Present Situation:

Mercury is a naturally occurring element that is found in air, water and soil. It exists in several forms: elemental or metallic mercury, inorganic mercury compounds, and organic mercury compounds. Elemental or metallic mercury is a shiny, silver-white metal and is liquid at room temperature. It is used in thermometers, fluorescent light bulbs and some electrical switches. Inorganic mercury compounds take the form of mercury salts and are generally white powder or crystals. Inorganic mercury compounds have been included in products such as fungicides, antiseptics or disinfectants. Organic mercury compounds, such as methylmercury, are formed

when mercury combines with carbon. Microscopic organisms convert inorganic mercury into methylmercury, which is the most common organic mercury compound found in the environment. Methylmercury accumulates up the food chain.[1]

There are two major usages of mercury switches in vehicles: convenience lighting tilt switches and anti-lock braking system (ABS) control module switches. Lighting switches constitute about 90 percent of the switches in use and ABS control module switches the remaining 10 percent. While foreign automobile manufacturers never used mercury switches, the big three U.S. automobile manufacturers did use mercury switches until phasing them out completely after the 2003 model year. There are non-mercury alternatives available for these mercury switch applications in use in cars manufactured after 2003.[2]

The mercury in these switches becomes a problem when vehicles are retired from use. It is released during vehicle shredding and the steel/smelting processes. The vehicles most affected by all of these switch-removal programs are passenger cars and trucks. A small percentage of the switch removal programs also address commercial trucks. The switch removal programs focus on removing hood-light and trunk-light switches. Vanity-light switches and ABS-sensor switches are also frequently targeted.[3]

Section 403.7186(2), F.S., prohibits the incineration of mercury-containing devices and the knowing disposal of such devices in a landfill. Such devices would include mercury switches removed from automotive vehicles. In July 2002, the Department of Environmental Protection (DEP) initiated an innovative pilot project aimed at the environmentally troubled auto salvage yards industry. The pilot project was call "Green Yards." The Green Yards Program was developed in cooperation with the Florida Auto Dismantlers and Recyclers Association (FADRA) and with James Environmental, which was under contract with DEP.[4] The Green Yards Program teaches salvage yards to use voluntary Best Management Practices, including the removal and proper management of mercury vehicle switches.

As of January, 2006, 10 states have enacted legislation pertaining to the removal of mercury switches from scrap vehicles. Six states (AR, ME, NJ, NC, PA, and RI) provide financial incentives for switch removal and removal is mandatory except in Pennsylvania. Four other states (CO, MI, MN, and TX) do not provide financial incentives for switch removal and removal is voluntary except in Minnesota. At least 11 other states have proposed such legislation according to the Environmental Council of the States (ECOS) Quicksilver Caucus 2005 Compendium of State Mercury Activities.

On March 8, 2006, the American Iron and Steel Institute issued a press release announcing that representatives from the vehicle manufacturers, steelmakers, vehicle dismantlers, vehicle shredders, the environmental community, the states and the U.S. Environmental Protection Agency reached a tentative agreement on a statement of principles detailing the elements of a voluntary national program for recovering mercury switches from scrap cars and light trucks

[1] www.epa.gov/mercury/faq.htm#1
[2] Department of Environmental Protection Draft Bill Analysis 2006 for SB 2446
[3] 2005 Compendium of State Mercury Activities Report found at www.ecos.org/section/2005_mercury_compendium
[4] www.dep.state.fl.us/secretary/news/2002/02-045salvage_yard.htm

before they are shredded for recycling. The parties are now working to complete a formal agreement.[5]

The End-of-Life Vehicle Solutions Corporation (ELVS) was created by the automotive industry in 2005 to advance environmental efforts in the areas of vehicle recyclability, education and outreach, and the proper management of substances of concern from end-of-life vehicles. The ELVS members include BMW of North America, LLC; Daimler-Chrysler Corporation; Ford Motor Company; General Motors Corporation; Mitsubishi Motors North America, Inc.; Nissan North America, Inc.; Subaru of America, Inc.; and Volkswagen of America, Inc.

The ELVS Corporation will:

- Identify vehicle recyclers and scrap recyclers and invite their participation;
- Provide participants with collection containers for collecting and storing vehicle mercury switches;
- Provide educational materials about the program, guidance on which vehicles contain mercury switches, and instructions on how to remove mercury switches;
- Arrange and pay for the transportation of the switches;
- Arrange and pay for the recycling of the mercury; and
- Track participation and mercury collection progress.

III. Effect of Proposed Changes:

This bill creates s. 403.7187, F.S., the Mercury Switch Recovery Act. The purpose of the act is to reduce mercury in the environment by removing mercury switches from end-of-life vehicles and by creating a program to collect and recover mercury switches that are removed from end-of-life vehicles in Florida.

The bill defines the following terms: "department," "end-of-life vehicle," "manufacturer," "mercury minimization plan," "mercury switch," "person," "scrap recycling facility," "vehicle," and "vehicle recycler."

By October 1, 2006, each manufacturer shall, individually or as part of a group of manufacturers, submit a mercury minimization plan to the DEP. The plan must be developed in consultation with the DEP and must, at a minimum, include:

- For each vehicle that contains one or more mercury switches, a description of:
    - The make, model and year of the vehicle.
    - Each mercury switch in the vehicle, including, but not limited to, the location of the switch. If a manufacturer is uncertain whether a convenience light switch assembly in a vehicle that such manufacturer is producing, or plans to produce, contains a mercury switch, such switch is presumed to be a mercury switch.
    - A system to mark the vehicle to indicate the presence or absence of each mercury switch to a vehicle recycler or scrap recycling facility that may process the vehicle for shredding or crushing.

[5] www.steel.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=13053

- A description of the safe and environmentally sound methods for removing mercury switches from end-of-life vehicles.
- Educational materials to assist a vehicle recycler or scrap recycling facility in undertaking a safe and environmentally sound method for the removal of mercury switches from end-of-life vehicles, including, but not limited to, a method of packaging and shipping the switches to a facility that is authorized to recycle, store, or dispose of them in an environmentally appropriate manner.
- A recommended method for storing the mercury switches that are removed from end-of-life vehicles if a technology to manage the switches in an environmentally appropriate manner is unavailable.
- Provisions to ensure that existing infrastructure to recycle end-of-life vehicles is used to the extent practicable. A plan that does not use such existing infrastructure must state reasons for establishing a separate infrastructure.
- A recommended method of implementing the plan.
- A recommended method of financing the plan which includes financing by each manufacturer. The method must ensure prompt payment to vehicle recyclers, scrap recycling facilities, and the DEP for the costs associated with the removal and disposal of mercury switches, which method includes, but is not limited to, payment in the amounts specified in this bill.

Within 120 days after receipt of a mercury minimization plan, the DEP shall approve or disapprove the plan in whole or in part. The DEP may approve a plan or part only when it has reasonable assurance that implementation of the plan or part will, in a manner that is environmentally safe, result in removal of mercury switches from end-of-life vehicles and creation of a program to collect and recover the mercury switches that are removed. A plan or part not disapproved within the 120-day period is deemed approved subject to any modifications required by the DEP. The DEP may solicit input from representatives of vehicle recyclers, scrap recycling facilities, or other stakeholders concerning a plan that is under review.

Within 30 days after approval of the plan or part, each manufacturer submitting the plan shall begin implementation of the approved part of the plan.

If all or part of a mercury minimization plan is disapproved, the DEP shall provide written comments stating the reasons for the disapproval, and each manufacturer submitting the disapproved plan or part shall, alone or as a group of manufacturers, submit a revised plan or part consistent with the DEP's comments. If a plan or part is not approved on or before March 1, 2007, the DEP shall establish a final approved plan or part, and each manufacturer, within 30 days after such establishment, shall begin, and thereafter shall continue, implementation of the approved plan or part.

The DEP may request modification of an approved mercury minimization plan under certain conditions.

Beginning 30 days after approval of each mercury minimization plan, a vehicle recycler that sells, gives, or otherwise conveys ownership of an end-of-life vehicle identified in the plan to a scrap recycling facility must remove each mercury switch from the vehicle before delivery to the facility. A mercury switch that is inaccessible due to significant damaged to the area surrounding

the switch need not be removed before delivery to a scrap recycling facility if the damage is noted on the normal business records of the vehicle recycler. A scrap recycling facility may accept delivery of the vehicle when the mercury switch has not been removed if the vehicle has not been intentionally flattened, crushed, or baled.

The vehicle recycler or scrap recycling facility must maintain records of the make of each vehicle from which a mercury switch has been removed and the number of switches collected. These records must be made available to the DEP upon request.

The vehicle recycler or scrap recycling facility must ensure that the switches are collected, stored, transported, and handled in accordance with the approved mercury minimization plan and the DEP's rule 62-730.185, F.A.C.

A person who receives an end-of-life vehicle that has been intentionally flattened, crushed, or baled is not in violation of these provisions if a mercury switch is found in the vehicle after receipt.

Each manufacturer, or group of manufacturers, must submit a report to the DEP annually starting one year after the mercury minimization plan is approved. The plan must contain certain specified items. The DEP may discontinue the annual report if it finds that mercury switches no longer pose a significant threat to the environment or to public health.

Also, each manufacturer, or group of manufacturers, must submit an annual report concerning the steps being taken by manufacturers to design vehicles and components for recycling. The bill specifies what the report must contain.

Each manufacturer is required to promptly pay $5 to the recycler for each switch the recycler has removed as partial compensation for the labor and other costs. Also, each manufacturer must pay $1 to the DEP for each mercury switch removed by the recycler. In addition, the manufacturers must reimburse each recycler for expenses incurred in recycling, storing, or disposing of mercury switches, including, but not limited to, expenses to ship switches to recycling, storage, or disposal facilities, to purchase packaging in which to transport the switches, or to prepare or distribute educational materials required to vehicle recyclers and scrap recycling facilities.

By August 1, 2006, the manufacturers must provide to each vehicle recycler and scrap recycling facility one or more containers in which to store the removed mercury switches until the vehicle recyclers are reimbursed.

The manufacturers shall indemnify, defend, and hold harmless each vehicle recycler and scrap recycling facility for any liability arising from the release of the mercury from the mercury switches after the switches are transferred free on board to the manufacturer or an agent of the manufacturer or a person under contract with the manufacturer.

The DEP shall adopt rules to administer these provisions.

This act would take effect July 1, 2006.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

This bill does not require cities and counties to expend funds or limit their authority to raise revenue or receive state-shared revenues as specified by s. 18, Art. VII, State Constitution.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

Though not called a tax or a fee, the vehicle manufacturers must pay $5 per mercury switch to the vehicle recyclers or scrap recycling facility. Also, the manufacturers must pay $1 for each mercury switch to the DEP to cover administrative costs.

B. Private Sector Impact:

Vehicle manufacturers would be required to pay a total of $6 per mercury switch removed from an end-of-life vehicle. ($5 to the recycler, $1 to the DEP) The annual cost to the manufacturers has been estimated at between $430,000 and $2.2 million. This is assuming that the annual number of switches removed is between 72,000 and 129,000.[6]

In addition, the manufacturers are required to pay for the transportation and recycling of the switches that are removed. Manufacturers would have to provide containers for the temporary storage of the removed mercury switches. The estimated transportation costs are between $720 and $22,200, depending on recycling costs and quantity of mercury switches removed. Florida has an estimated 800-900 vehicle recyclers.[7]

The vehicle recyclers would benefit because much of their costs to remove and recycle these mercury switches would be paid for by the vehicle manufactures.

It is unclear in the bill what the mechanism is for payment to the vehicle recyclers from the manufacturers. Also, it is unclear as to when payment is due. Enforcement of these provisions is unclear.

[6] Department of Environmental Protection Draft Bill Analysis, 2006 – SB 2446.
[7] Id.

C. Government Sector Impact:

The DEP is required to review and approve the mercury minimization plans. To compensate the DEP for this program, the vehicle manufacturers must pay the DEP $1 per mercury removed from the vehicle. This could provide estimated revenues to the DEP of between $72,000 and $129,000. It is unclear when the vehicle manufacturers would remit this revenue to the DEP. It is also unclear as to how this provision would be enforced.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Summary of Amendments:

None.