ADEQ PROGRAM PROMOTES MERCURY SWITCH REMOVAL

A small metal capsule found in older cars is a big threat to the environment – a threat the Arkansas Department of Environmental Quality is working to eliminate.

In 2006, ADEQ instituted a program to require auto salvage businesses and recyclers to remove the mercury-filled capsules, known as mercury switches, from vehicles about to be destroyed.

The bullet-sized mercury switches were used in many cars built before 2003. One switch contains about a gram of mercury, which alone could contaminate a 20-acre lake over time.

“Even though these switches are so small, there would be an environmental impact if mercury switches were not removed from end-of-life vehicles,” said ADEQ Director Teresa Marks. “This program is an excellent way to reduce mercury emissions and keep our environment safe.”

Mercury switches account for about 87 percent of the total mercury contained in vehicles equipped with the devices. If the switches are not removed before a vehicle is crushed, shredded, or smelted -- as state law requires -- the mercury is released into the environment. The law pertains only to mercury switches in vehicles, such as those that operate lights or are part of an antilock braking system.

Mercury released into the environment can make its way up the food chain to humans through mercury-contaminated fish. Exposure to high levels of mercury could cause brain or kidney damage, according to the Centers for Disease Control.
Because of environmental concerns, American automakers stopped installation of mercury switches in vehicles in 2003. Still, thousands of switches pose a threat as older automobiles reach the end of useful life.

ADEQ partners with a Michigan-based company for proper disposal of the mercury-filled capsules. The company, created by automobile manufacturers, provides financial incentives to salvage businesses and recyclers who dismantle the switches.

State law authorizes businesses to receive $5 from automakers for each switch removed and sent for disposal. Businesses must maintain written records describing the make and model of each vehicle from which the switches are removed.

In addition, ADEQ receives $1 per switch to fund its mercury switch removal program.

ADEQ provides educational outreach and information to salvage yards about the proper removal and disposal of mercury switches. ADEQ, through its national partner, supplies collection buckets to the businesses.

So far this year, Arkansas businesses have dismantled about 900 mercury switches.

The mercury switch removal program is scheduled to continue until 2017.

“One of the most effective ways to reduce mercury releases is simply by removing mercury switches at salvage yards and auto recyclers,” Marks said. “It can take as little as 30 seconds to remove a mercury switch assembly.”

The switches are found on General Motors vehicles made in model year 2002 or earlier, Fords from 2001 and earlier, and Chrysler vehicles manufactured in 1998 or earlier. European automakers phased out mercury switches in 1993 and the switches were removed from other foreign cars beginning in 1996. Toyota and Honda vehicles have never been equipped with the switches.

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