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# Research Report

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## **Maine Department of Environmental Protection**

## **Mercury Switch Removal Program Survey**

Date: January 2004

**Prepared for:**

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## Methodology

The survey instrument used for the survey was developed by Market Decisions in consultation with DEP staff. The primary objective of the research was to understand awareness of the program and materials, as well as satisfaction with the program and materials. This would provide information to adjust or improve the program.

The DEP mailed the survey package, which included an introductory letter, a separate printed survey and a return mail envelope with a tracking number. The mailing list was composed of junkyards known to the DEP and the returned surveys came directly to market Decisions.

Market Decisions provided a list of tracking numbers on returned surveys to DEP, who sent a second mailing was made to those who had not responded to the initial mailing. Sending a second survey is a standard practice used to increase survey response.

In total, 716 surveys were mailed and 277 were returned a completed survey for a 39% response rate. This is a typical response rate for this kind of survey.

Researchers hope to see a 50-70% response rate as these levels provide more assurance of representativeness of responses. However, these response rates also require more aggressive (and costly) methods such as multiple mailings or following up with a phone call to non-respondents.

With 39% responding we should assume that the findings are subject to a self-selection bias. That is, those that participated may be different than those who did not respond. It is possible, for example that the respondents to the survey were more likely to be participants in the program. Those who did not respond may not wish to say that they were not participating. Some may not have responded because the survey did not pertain to them or because they *thought* that the survey did not pertain to them.

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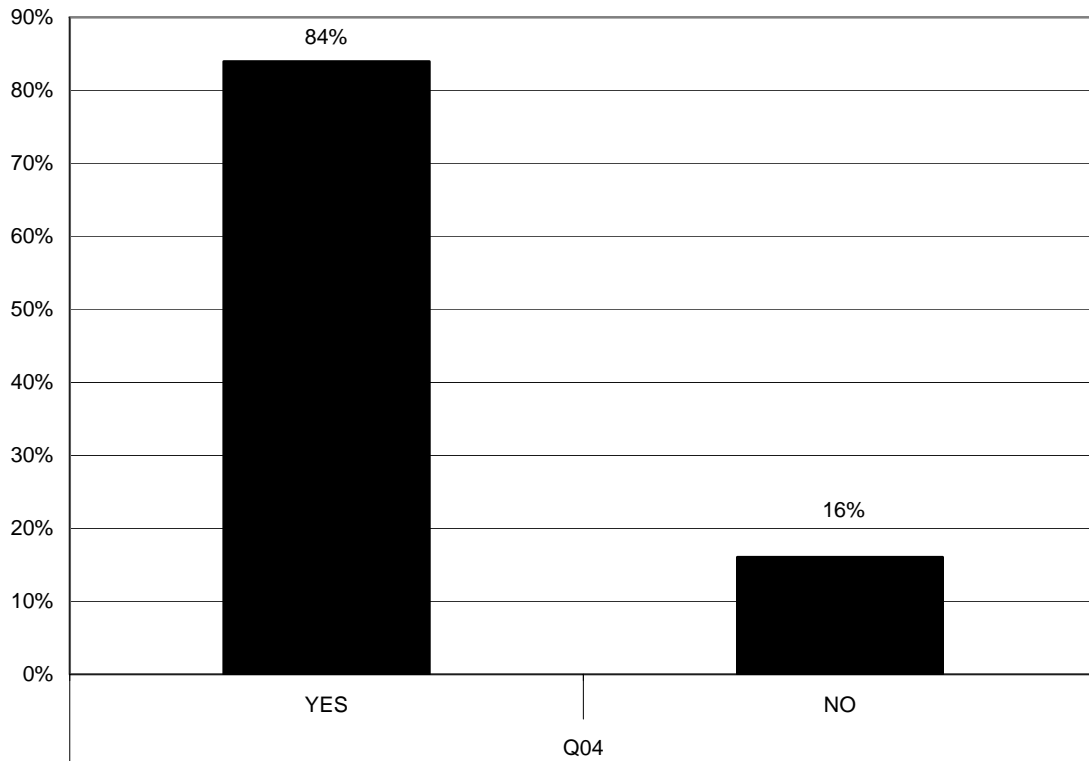
## Key Findings

- ◆ 84% of businesses surveyed were aware of a program sponsored by the Maine Department of Environmental Protection (DEP) to assist businesses in removing mercury switches from scrapped motor vehicles.
- ◆ 77% of respondents currently participate in the Department of Environmental Protection's program to remove mercury switches and recycle them.
- ◆ Respondents most commonly heard of this program through attending a DEP workshop (45%) or by reading about it in a DEP newsletter (41%).
- ◆ The majority of respondents were aware of the free materials available from the DEP to assist in the removal of mercury switches. The secure storage pail for mercury switches was the most commonly known (76%), and the laminated switch removal instructions were the least commonly known (64%).
- ◆ Respondents who had received the free materials from the DEP tended to find them very useful, however, many respondents had not received them.
- ◆ 76% said that DEP assistance, including manuals, training, laminated cards and buckets, encouraged their participation.
- ◆ 61% stated that the time required to remove switches had no effect on their participation.
- ◆ The need to provide a VIN to receive the bounty for each switch was the most common factor that discouraged respondents' participation in the program (40%).
- ◆ The most important factor encouraging participation was the respondents' personal interest in protecting rivers and streams from mercury pollution (88%).

## Detailed Findings

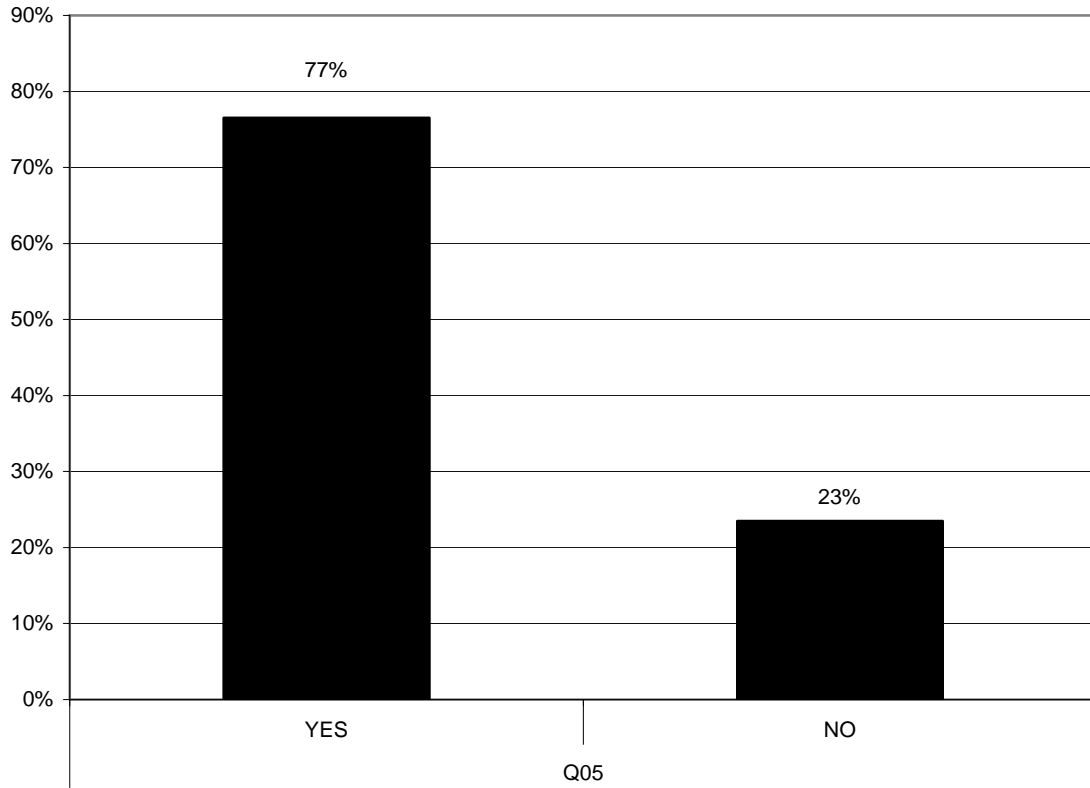
**84% of businesses surveyed were aware of a program sponsored by the Maine Department of Environmental Protection to assist businesses in removing mercury switches from scrapped motor vehicles.**

4. Have you heard of a program sponsored by the Maine Department of Environmental Protection (DEP) to assist businesses in removing mercury switches from scrapped motor vehicles?



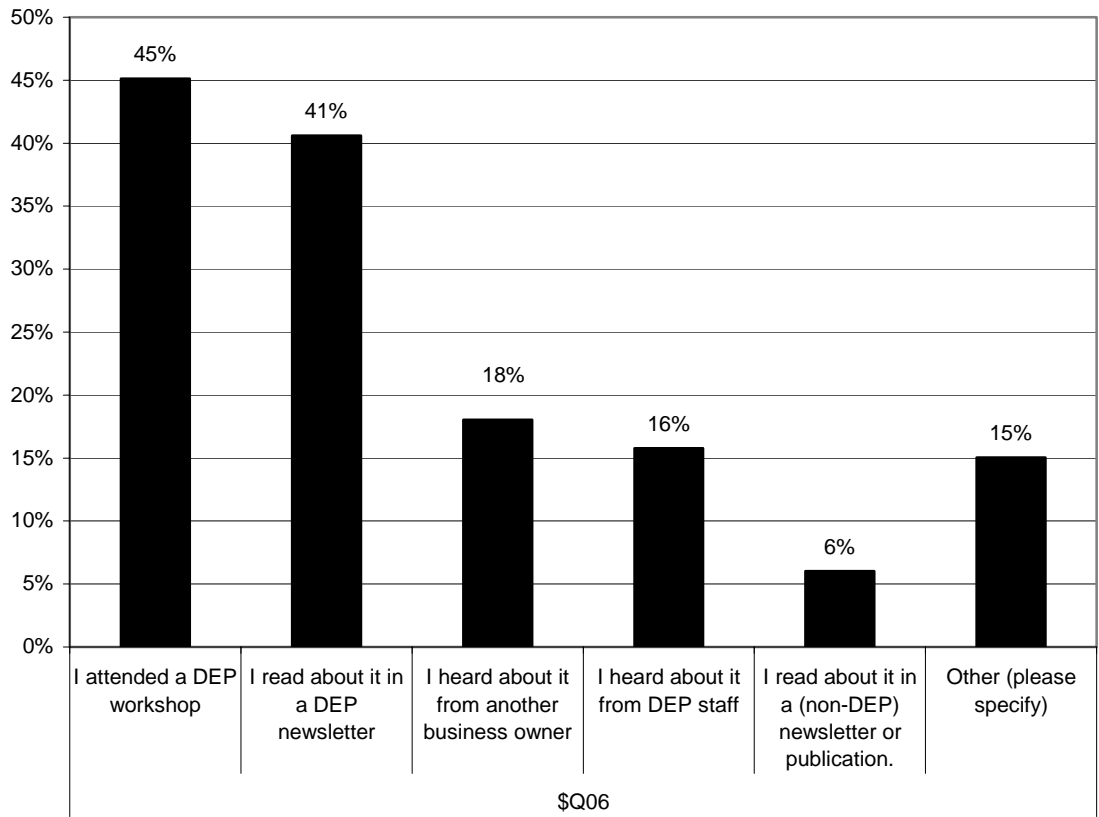
**77% of respondents currently participate in the DEP's program to remove mercury switches and recycle them.**

5. Do you currently participate in the Department of Environmental Protection's program to remove mercury switches and recycle them?



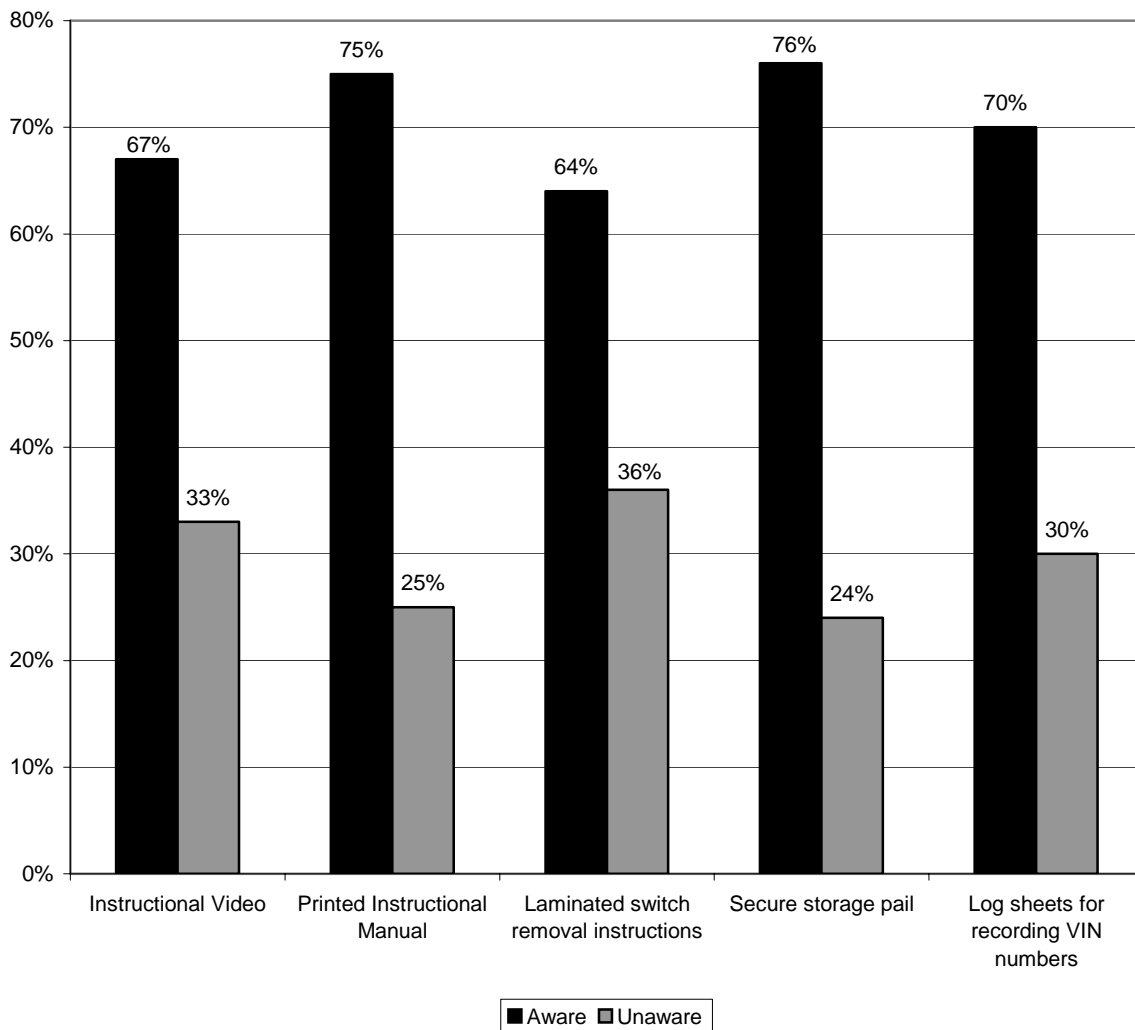
**Respondents most commonly heard of this program through attending a DEP workshop (45%) or by reading about it in a DEP newsletter (41%).**

6. How did you hear of this program?



**The majority of respondents were aware of the free materials available from the DEP to assist in the removal of mercury switches. The secure storage pail for mercury switches was the most commonly known (76%), and the laminated switch removal instructions were the least commonly known (64%).**

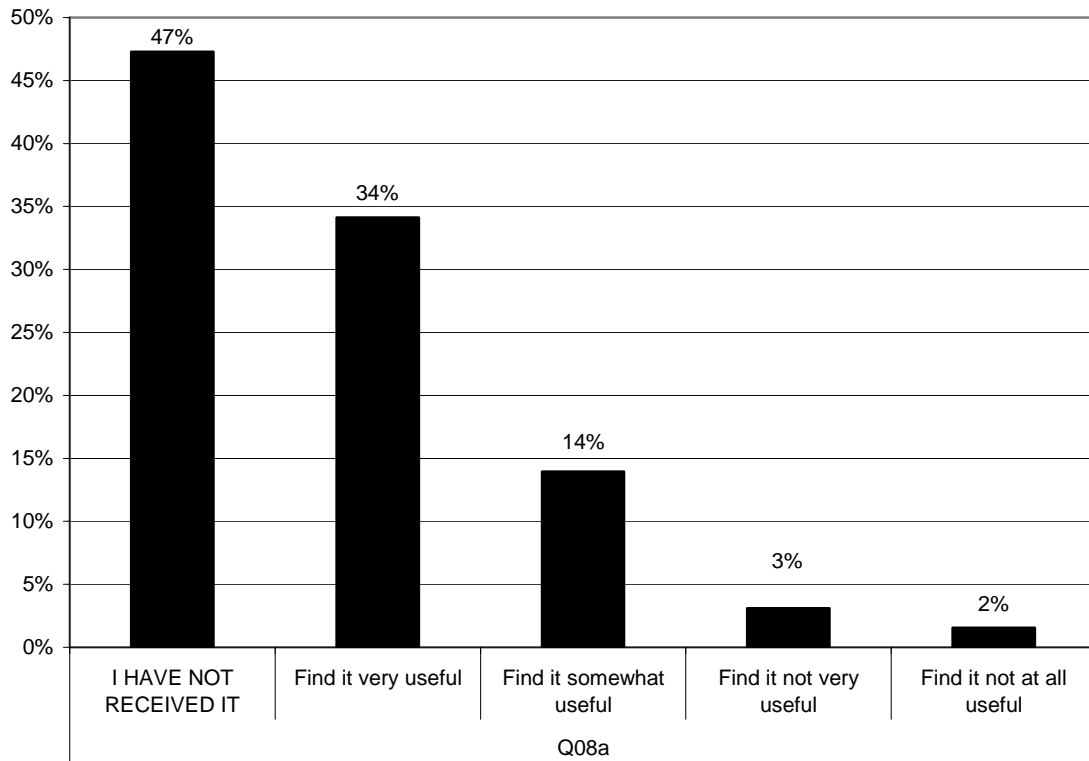
Free Materials Availability Awareness



**Respondents who had received the free materials from the DEP tended to find them very useful, however, many respondents had not received them.**

**Instructional Video**

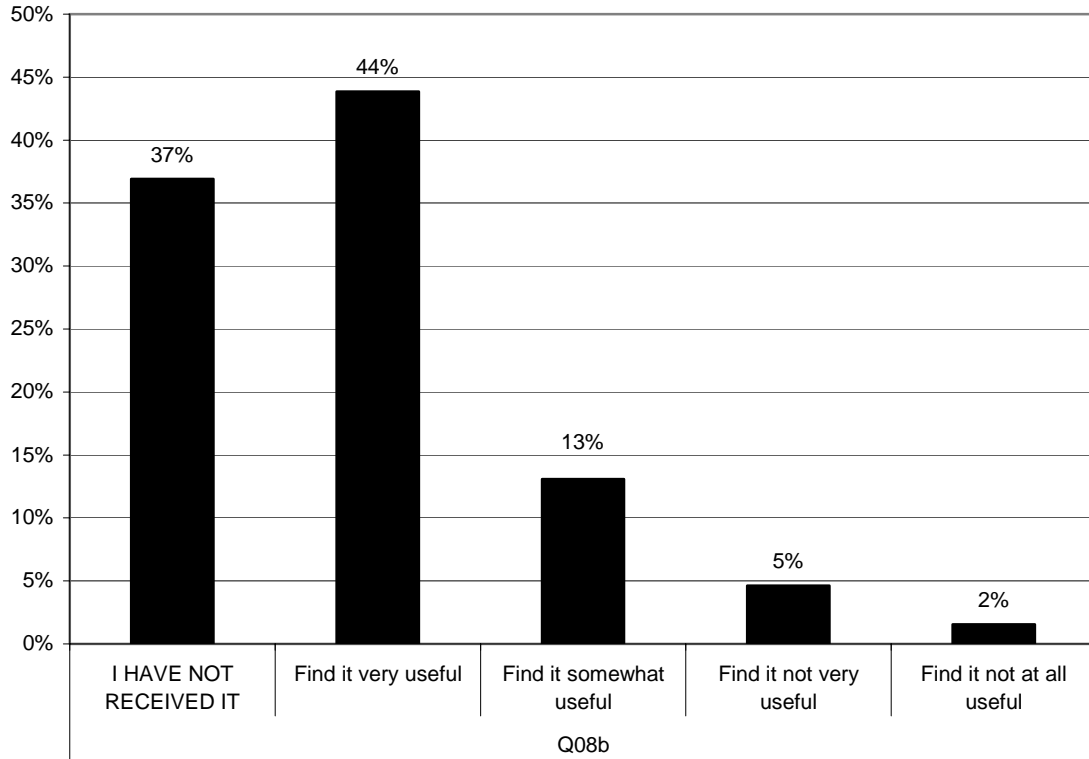
8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches.  
INSTRUCTIONAL VIDEO



### Printed Instruction Manual

8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches.

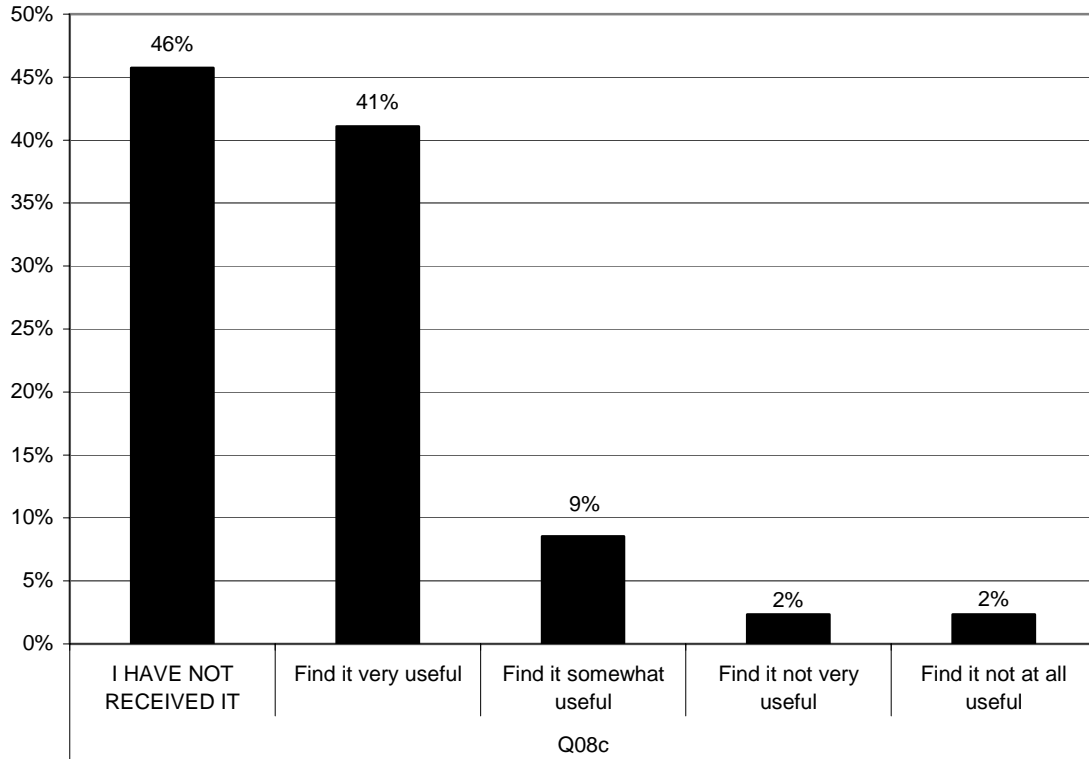
PRINTED INSTRUCTION MANUAL



### **Laminated Switch Removal Instructions**

8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches.

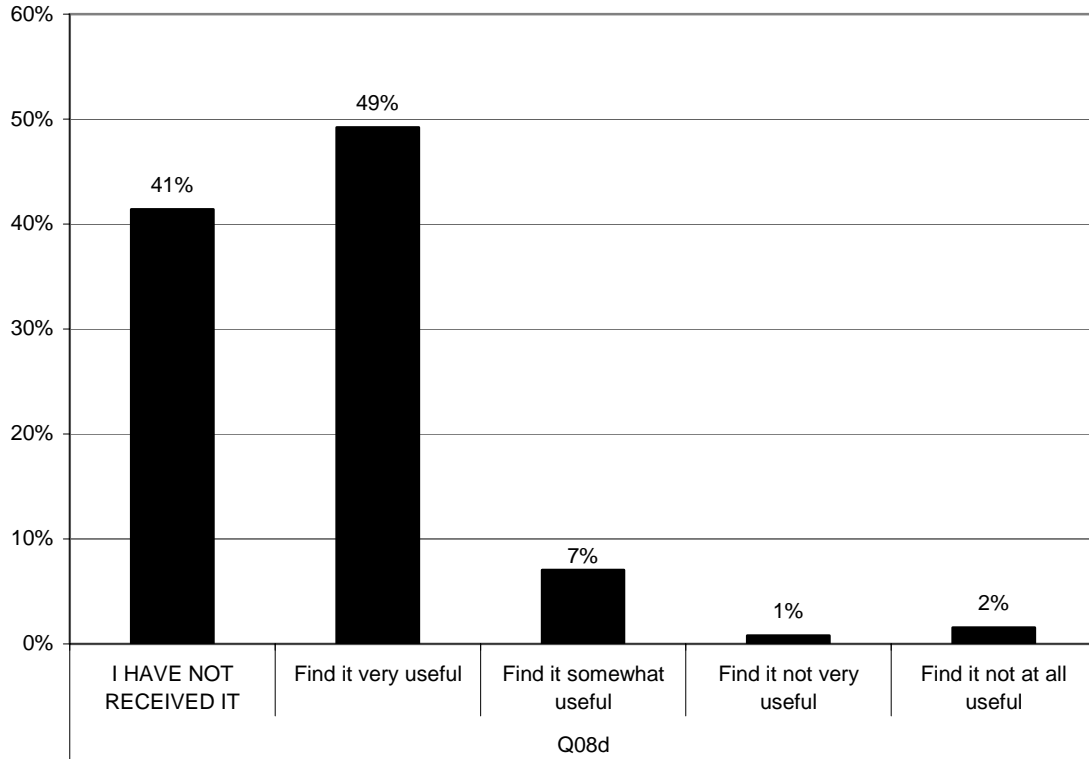
LAMINATED SWITCH REMOVAL INSTRUCTIONS FOR USE BY MECHANICS



### **Secure Storage Pail for Mercury Switches**

8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches.

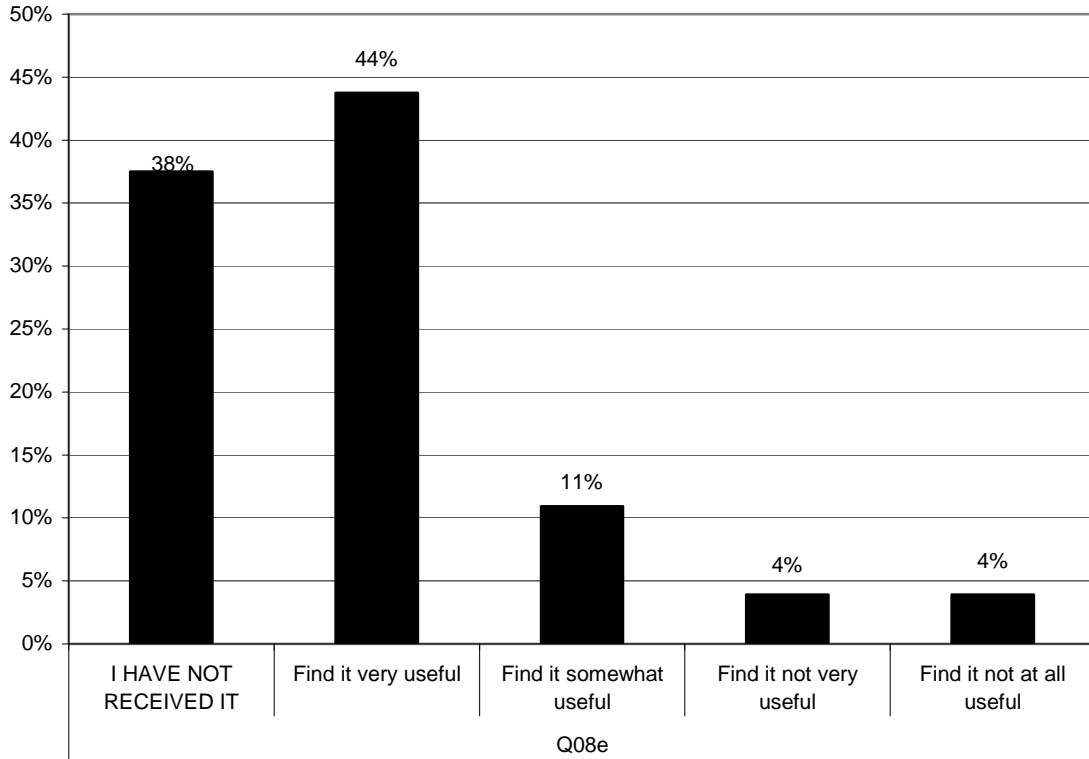
SECURE STORAGE PAIL FOR MERCURY SWITCHES



### Log Sheets for Recording VIN numbers

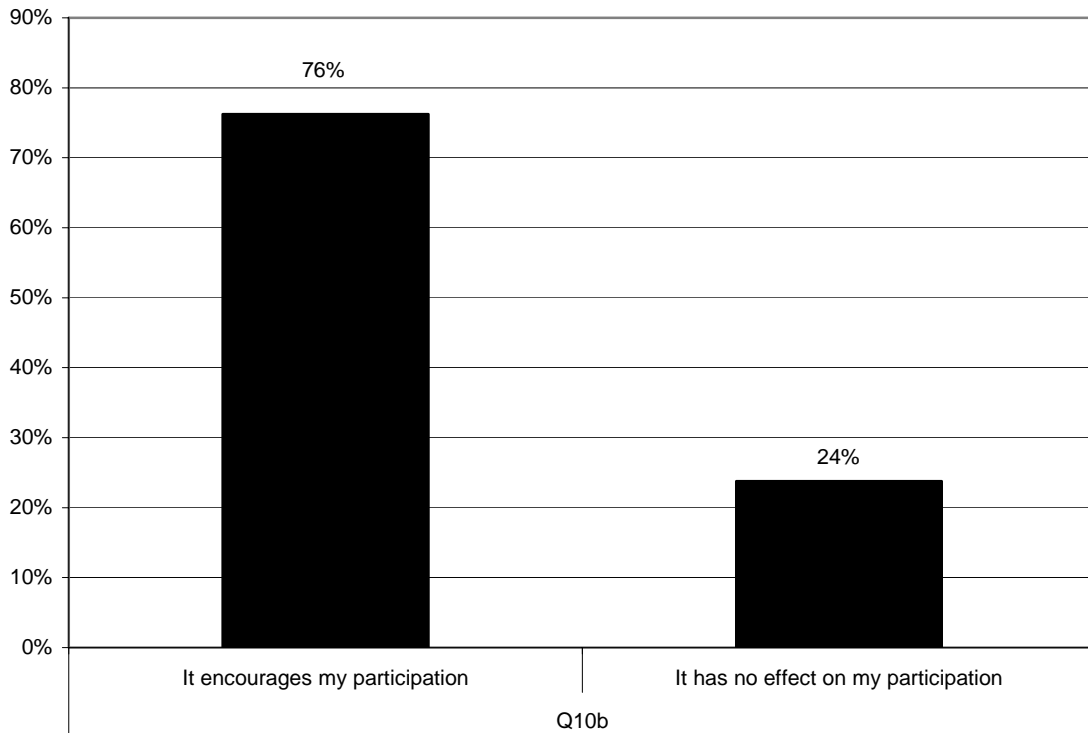
8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches.

LOG SHEETS FOR RECORDING VIN NUMBERS



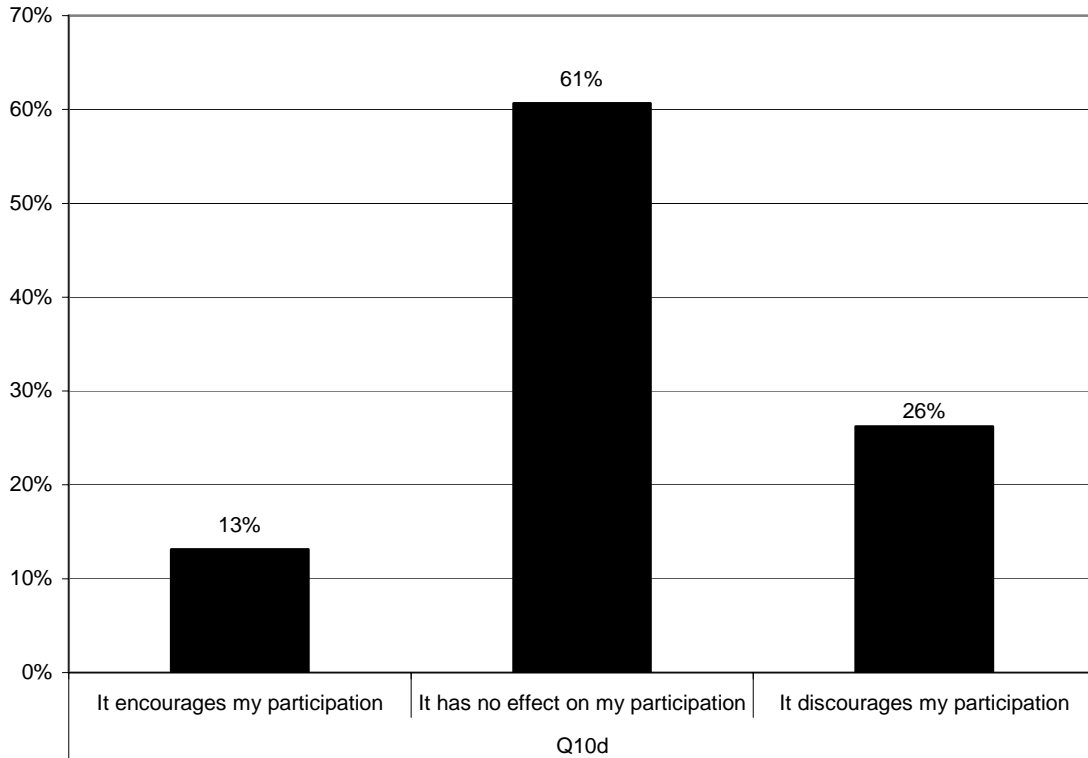
**76% said that DEP assistance, including manuals, training, laminated cards, and buckets, encouraged their participation.**

10. Please tell us how each of the following effects your participation in the mercury switch recycling program.  
DEP ASSISTANCE INCLUDING MANUALS, TRAINING, LAMINATED CARDS AND BUCKETS



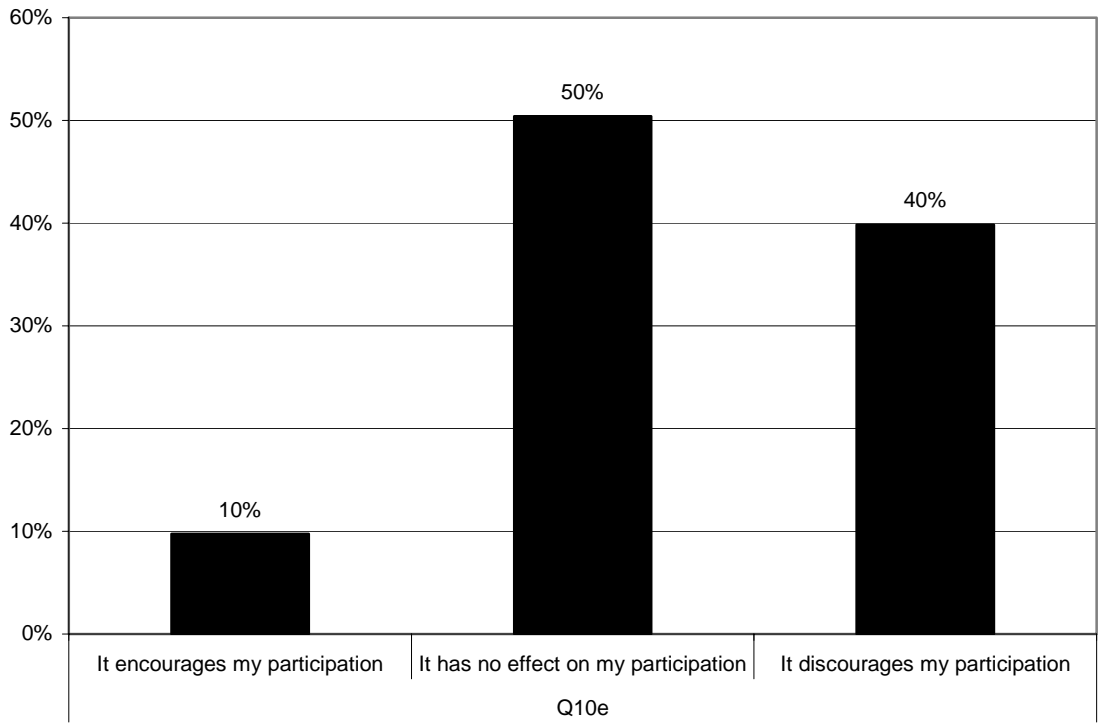
**61% stated that the time required to remove switches had no effect on their participation.**

10. Please tell us how each of the following effects your participation in the mercury switch recycling program.  
THE TIME REQUIRED TO REMOVE SWITCHES



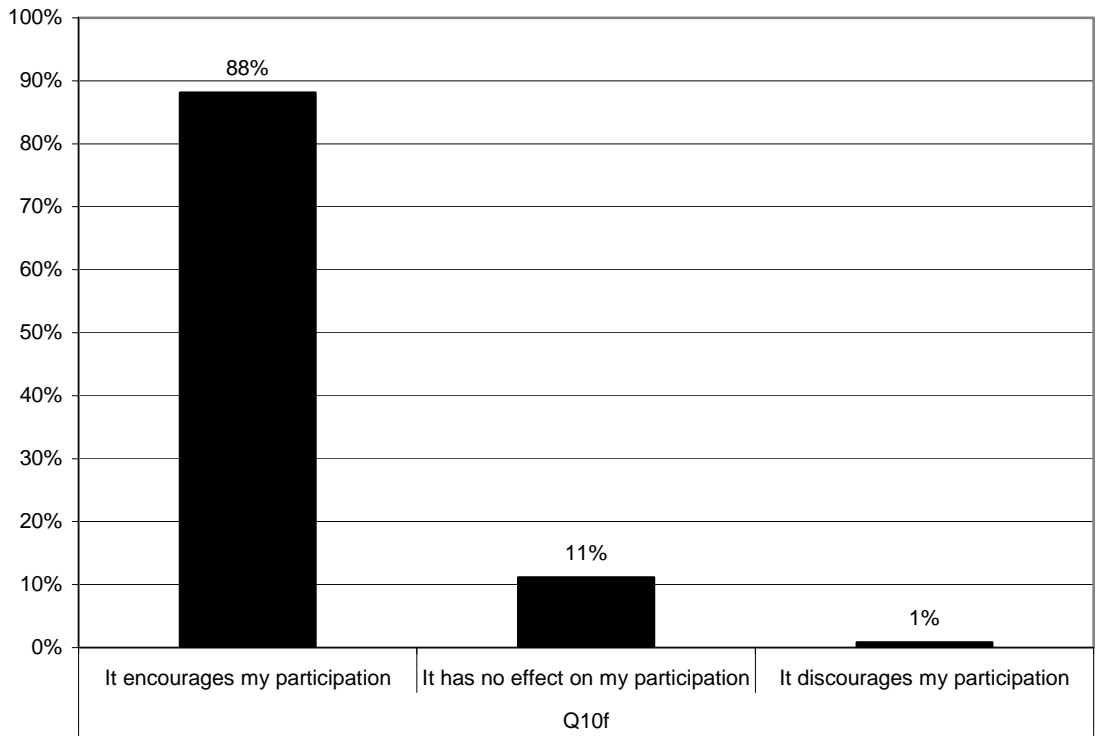
**The need to provide a VIN to receive the bounty for each switch was the most common factor that discouraged respondents' participation in the program (40%).**

10. Please tell us how each of the following effects your participation in the mercury switch recycling program.  
THE NEED TO PROVIDE A VIN (VEHICLE IDENTIFICATION NUMBER) TO RECEIVE THE BOUNTY FOR EACH SWITCH



**The most important factor encouraging participation was the respondents' personal interest in protecting rivers and streams from mercury pollution (88%).**

10. Please tell us how each of the following effects your participation in the mercury switch recycling program.  
MY PERSONAL INTEREST IN PROTECTING RIVERS AND STREAMS FROM MERCURY POLLUTION



## Open Ended Responses

**Note:** Taken verbatim from returned surveys.

### Question #2: How would you describe your primary business?

#### Other:

Antique - Classic Pre-1970  
Antique restoration  
Auto Garage and Sales of Auto  
Auto parts and recycling  
Auto Sales  
Car & Truck Dealer  
Construction business, have heavy equipment.  
Hobby  
Junkyard and used cars  
New and used parts sales.  
Part cars for my own vehicles  
Parts for our own use or fix  
Pick up junk cars for scrap metal  
Private use  
Restore Antique Autos  
Sales  
Scrap metal recycler and shredder  
Selling used vehicles.  
Storage  
Storage of vintage autos for own use  
Towing  
Towing and trucking  
Towing  
Truck sales and parts  
Used car dealer  
Used car sales  
Used car sales  
Used car sales  
Used cars  
Very small only 5 or 6 stored for my parts  
We simply have very few cars on hand (none now). When we do we have them crushed.

**Question #6: How did you hear of this Program?**

**Mail/Letter/Memo:**

DEP Mailers.  
Information sent to us when applying for my junkyard license with the town.  
January 7, 2003 memorandum from DEP.  
Legislative Newsletter.  
Letter from DEP.  
Mail sent to me.  
Sent me papers.  
The DEP sent us a letter.

**Newspaper related:**

Newspaper  
WTVL Sentinel

**MARA related:**

Belong to MARA.  
From MARA (Maine Auto Recyclers Assoc.)  
I belong to MARA and they gave me a date to attend a DEP workshop.

**Other:**

Bigger recyclers.  
Casual mention from a friend.  
From DEP and Maine Motor Vehicle.  
Have bucket, tape and workbook.  
I called DEP.  
I do not run a salvage business.  
Made a video about it.  
NFIB Member.  
Town of Norridgewock meeting.  
Town official

**Question #9: Do you have any comments or suggestions on these materials?**

**Dismantlement/removal done by someone else:**

I do not scrap vehicles, I remove some body parts then send vehicle to auto salvage yard.  
I don't participate in removing mercury switches, I only use body parts and give the rest of the car to local junkyard.  
I have not taken any mercury switches off. I have not dismantled or junked out any autos for about 8 years. I do sell some autos to used auto parts yards.  
I pick up junk cars around the area and when junk prices are up I call a crusher. They remove the switches and take them with them.

**More/updated information needed:**

A list of locations of switches on automobiles.  
I was wondering if you had a guide that tells where switches are in each individual vehicle.  
I would like to have the materials listed in #8. I think they would be helpful.  
Instruction manual does not include Volvo - all I do is Volvo. I am leaving the switch in the unit and storing the whole thing.  
Need to receive more information.  
The material related to large commercial vehicles needs improvement.  
Updated sheets, laminated, as vehicles with switches, or headlamps are manufactured with locations of switches saves a lot of time.

**Against the VIN # requirement:**

Get rid of the VIN #'s!!!  
I do not remember anything being said about VIN # to be listed with switches. I have got mercury switches in bucket including one glass switch.  
I would prefer to not record VIN #'s and forgo the bounty.  
Most of the switches I have collected are from cars that were crushed a long time ago. No VIN available. VIN requirement is an impediment to compliance.  
Very time consuming to write VIN number down.

**General positive comments:**

Have removed 1300 to date.  
I attended the dinner and workshop, job very well done!  
The mailings are appreciated that are informative. We need these to keep us abreast of the new laws.  
We're all for it! It's about time.

**Other:**

1) Don't make the stuff if it's that dangerous. 2) Time required now to prepare a scrap vehicle exceeds the money received from it. Therefore a lot of cars are sitting in the woods.  
A 15-gallon pail and video and piece of paper don't make removal any easier. It still takes 1 breathing body\$\$\$.  
I already fill out a form to send to Bureau of Motor Vehicles.  
I am currently getting rid of my cars.  
I have only one switch and I am waiting till I have 2 to turn them in.  
More storage buckets provided at onetime.  
No, I'm very small but aware of it.  
Not until I have received them.  
The dollar bounty should be a little more, not too much more because I would not want to see them worth so much they were getting stolen but enough to offset some of your time to collect and drop them off.

They are ok.  
We are finding that most vehicles don't have mercury switches.  
Where and when can I receive the materials to begin recycling?

## Question #11: Do you have any comments or suggestions for the program?

### Dismantlement/removal done by someone else:

After the parts I need are removed the car is passed to another recycler for final disposal.

Although I am an auto re-builder, I do not scrap vehicles. I dispose of the complete vehicle in a larger facility and they remove the switches. There should be an exemption for my circumstance.

Any dismantling on our cars is done by whoever hauls them off, we do not dismantle.

We do not remove, we require switches removed before acceptance at our facility.

### Bounty money not enough:

Bounty should be higher.

I don't think the \$1 bounty begins to cover the cost of the program. The cost should not fall on the small business owner.

More money for switch removal and cost of transporting to a Wisco drop off location.

The whole world should do this. We lose money at \$1.00 per switch, should be \$10.00 or nothing. Do it for free to protect water.

### General positive comments:

Doing very well.

I feel like we are doing our part in having a safe environment.

I feel the program is good. My cars only stay on site 1 to 3 years and then get crushed. I sell very few parts but make money from the rushing process and they remove the switches.

I like the program, I appreciate the help and I hope everyone works hard at it.

I think it is good.

Well intended, very important. I have a low volume auto salvage yard. I have removed them but don't have many late model wrecks.

We're all for it! It's about time.

### Big vs. small junkyard related:

It seems that the DEP and MARA have control of this business and want to stop the small 1 or 2 man operations from being successful or even surviving.

Keep the very small recycler in mind when you pass new rules or laws. It's easy to listen to the well-financed dealers whose situation is far removed from ours.

MARA is no help for micro-yards like mine. No use expecting \$1 when no VIN # available. I am very pleased to see the DEP focusing energy on helping rather than being focused solely on enforcement actions.

To have more than 2 vehicles in yard you have to have a junkyard license. So now everyone has a job and I have to pay more. I like having more than 2 vehicles in yard.

Yards should be statewide not a few high profile yards. Whether 100 cars or 1000 cars, more enforcement and periodic inspections of all not a selected few. Some high profile yards have to comply which means spending money and smaller yards are passed by.

### Against the VIN # requirement:

I did not know I needed VIN numbers for switches.

I had no idea that I needed VIN #'s to collect my bounty. Now I don't know what to do.

Keeping track of VIN numbers is a pain and not needed as long as we are keeping them from environment.

**Other:**

Cradle to grave- Make the auto manufacturers responsible for the switches they produced.

Currently I have not crushed any vehicles so haven't currently removed any.

Do not participate.

I understand I turn in switches when I crush vehicles and can keep switches in cars or containers until then.

I would like to receive the recycling materials.

If removal was required for State inspection, most switches would be gone in 2 years. This method will take 15 years.

Mercury switches should not be installed in any vehicle.

No comment or suggestions at this time. The meeting at Augusta was very helpful, thank you.

No.

Removing the light units from Volvos is not hard, removing the glass switch from the light has no instruction in manual.

Since I deal mostly with trucks over 10,000 GVW, haven't used the materials yet but I will as needed.

This is the second time I have done this survey.

Why wouldn't I answer 12 & 13 if I need the materials?

Would like to have a drop off location in Waterville or Augusta.

## Survey Instrument

## Maine Department of Environmental Protection Mercury Switch Removal Program Survey

Instructions: Please complete the survey by marking the appropriate box or filling in your answer in the space provided.

1. Do you currently dismantle, scrap or store obsolete or non-working vehicles?

<input type="checkbox"/>	YES	<b>Please continue</b>
<input type="checkbox"/>	NO	<b>Thank you, this survey is for those who dismantle, scrap or store obsolete or non-working vehicles. We would still appreciate it if you would return this survey in the enclosed business reply envelope so that we do not send you additional surveys or reminders.</b>

2. How would you describe your primary business?

<input type="checkbox"/>	Automobile dismantling and recycling
<input type="checkbox"/>	Automobile grave yard (“u-pull-it”)
<input type="checkbox"/>	Scrap metal junkyard
<input type="checkbox"/>	Vehicle service
<input type="checkbox"/>	Auto body shop
<input type="checkbox"/>	Auto rebuilder
<input type="checkbox"/>	Other (please specify) _____

3. On average, how many cars do you keep on site at any one time? \_\_\_\_\_

4. Have you heard of a program sponsored by the Maine Department of Environmental Protection (DEP) to assist businesses in removing mercury switches from scrapped motor vehicles?

<input type="checkbox"/>	YES	<b>Please continue to question 5</b>
<input type="checkbox"/>	NO	<b>Please <u>skip</u> to Page 4 and question 12 – do not answer questions 5 through 11</b>

5. Do you currently participate in the Department of Environmental Protection’s program to remove mercury switches and recycle them?

<input type="checkbox"/>	YES
<input type="checkbox"/>	NO

*Continued on next page*

6. How did you hear of this program? *Mark all that apply.*

<input type="checkbox"/>	I attended a DEP workshop
<input type="checkbox"/>	I read about it in a DEP newsletter
<input type="checkbox"/>	I heard about it from another business owner
<input type="checkbox"/>	I heard about it from DEP staff
<input type="checkbox"/>	I read about it in a (non-DEP) newsletter or publication. Which one? _____
<input type="checkbox"/>	Other (please specify) _____

7. The Department of Environmental Protection provides free materials to assist in the removal of mercury switches. For each of the following, please indicate whether or not you are aware of its availability.

	Aware	Not Aware
a. Instructional Video	<input type="checkbox"/>	<input type="checkbox"/>
b. Printed instructional manual (“ <u>Auto Dismantlers Guide</u> ”)	<input type="checkbox"/>	<input type="checkbox"/>
c. Laminated <u>switch removal</u> instructions for use by mechanics	<input type="checkbox"/>	<input type="checkbox"/>
d. Secure Storage Pail for mercury switches	<input type="checkbox"/>	<input type="checkbox"/>
e. Log Sheets for recording VIN numbers	<input type="checkbox"/>	<input type="checkbox"/>

8. The Department of Environmental Protection would like to know how useful you find the free materials it provides to assist in the removal of mercury switches. For each of the following, please indicate whether you have not received it, or if you have received it, whether you find it very useful, somewhat useful, not very useful or not at all useful.

	I have not received it	I have received it and find it....			
		Very Useful	Somewhat Useful	Not very Useful	Not at all Useful
a. Instructional Video	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Printed instructional manual (“ <u>Auto Dismantlers Guide</u> ”)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Laminated <u>switch removal</u> instructions for use by mechanics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Secure Storage Pail for mercury switches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Log Sheets for recording VIN numbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Continued on next page*

9. Do you have any comments or suggestions on these materials?

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10. Please tell us how each of the following effects your participation in the mercury switch recycling program.

	It <u>encourages</u> my participation	It <u>has no effect</u> on my participation	It <u>discourages</u> my participation
a. The \$1 bounty for each returned switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. DEP assistance including manuals, training, laminated cards and buckets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The Wesco switch drop off locations in Bangor or Portland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. The time required to remove switches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. The need to provide a VIN (Vehicle Identification Number) to receive the bounty for each switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. My personal interest in protecting rivers and streams from mercury pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Support from the Maine Auto Recyclers Association	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Do you have any comments or suggestions on the program?

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***These are all the questions we have for you. Please do not answer questions 12 & 13. Thank you for taking the time to complete this survey. Please return the survey in the envelope provided.***

***If you would like to receive information or free materials on the program, please complete the order form on Page 4.***

**Only if you answered NO to question 4, answer questions 12 and 13 below.**

12. The Department of Environmental Protection conducts a program to assist auto recyclers in meeting requirements for recycling mercury switches from automobiles. Switches may eventually release the dangerous mercury inside and affect the water quality in lakes, rivers and streams. Removal of a switch takes a few minutes and helps protect our fish and wildlife. For each returned switch, a bounty of \$1 is paid. The DEP provides a video describing how to remove switches, a written instruction manual, laminated instruction cards to keep in the shop and a bucket to hold and store switches.

How interested are you in receiving compliance assistance from the DEP?

<input type="checkbox"/>	Very Interested	<input type="checkbox"/>	Not Very Interested
<input type="checkbox"/>	Somewhat Interested	<input type="checkbox"/>	Not at all Interested

13. Why do you say that?

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***Thank you for taking the time to complete this survey. Please return the survey and order form in the envelope provided and mail to:  
Market Decisions, P.O. Box 2890, South Portland, ME 04116***

**If you would like to receive information or free materials on the program, please complete the order form below.**



**Order Form – Complete this form for Free Materials and Information**

<input type="checkbox"/>	Send me more information on how the program works
<input type="checkbox"/>	Have someone from the DEP contact me

**Send me the following materials:**

<input type="checkbox"/>	Instructional video	<input type="checkbox"/>	Secure mercury switch storage bucket
<input type="checkbox"/>	Written instructional manual	<input type="checkbox"/>	Universal waste label for the storage bucket
<input type="checkbox"/>	Laminated instruction cards for use by shop mechanics	<input type="checkbox"/>	VIN log sheet

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

