North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

January 1, 2014

MEMORANDUM

TO: Environmental Review Commission
The Honorable Brent Jackson, Chair
The Honorable Ruth Samuelson, Co-Chair
The Honorable Mike Hager, Co-Chair
House of Representatives Appropriations Subcommittees on Natural and Economic Resources
The Honorable Tom Murry, Co-Chair
The Honorable Roger West, Co-Chair
Senate Appropriations Subcommittees on Natural and Economic Resources
The Honorable Brent Jackson, Co-Chair
The Honorable Andrew C. Brock, Co-Chair
Fiscal Research Division of the General Assembly
Jennifer Hoffman
Timothy Dale

FROM: Neal Robbins, Director of Legislative Affairs

SUBJECT: 2013 Hazardous Waste Management Annual Report

DATE: January 1, 2014

Pursuant to G.S. 130A-294(i), The Department shall report to the Fiscal Research Division of the General Assembly, the Senate Appropriations Subcommittee on Natural and Economic Resources, the House Appropriations Subcommittee on Natural and Economic Resources, and the Environmental Review Commission on or before January 1 of each year on the implementation and cost of the hazardous waste management program. Please consider the attached as the formal submission of this report. If you have any questions or need additional information, please contact me by phone at (919) 707-8618 or via e-mail at neal.robbins@ncdenr.gov.

cc: Mitch Gillespie, Assistant Secretary for Environment, NCDENR
Dexter Matthews, Director, DWM, NCDENR
Linda Culpepper Deputy Director, DWM, NCDENR
Cathy Akroyd, DWM, NCDENR

HAZARDOUS WASTE MANAGEMENT

FY 2012-2013 REPORT

North Carolina Department of Environment and Natural Resources

Division of Waste Management

Hazardous Waste Section

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N. C. Department of Environment and Natural Resources

Dexter R. Matthews
Director
Division of Waste Management

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2013 ANNUAL REPORT

This annual report describes the activities of North Carolina's Hazardous Waste Program, Resident Inspector Program and Mercury Switch Removal Program from July 1, 2012 through June 30, 2013. It is prepared pursuant to N.C.G.S.130A-294(i) and is presented to the General Assembly and its Fiscal Research Division, the Senate Appropriations Subcommittee on Natural and Economic Resources, the House Appropriations Subcommittee on Natural and Economic Resources, and the Environmental Review Commission.

I. HAZARDOUS WASTE PROGRAM

EXECUTIVE SUMMARY

North Carolina's Hazardous Waste Program protects human health and the environment from the risks presented by potential mismanagement of hazardous waste. Hazardous waste generated and received in North Carolina by facilities in fiscal year 2012-13 was recorded as 74,257 tons of hazardous waste generated and 12,372 tons of hazardous waste received. For this year's report, hazardous waste generated data is from annual billing information and the hazardous waste received data is from the NC Resident Inspector Program. The number of small quantity generators decreased and the number of conditionally exempt generators increased, though the quantity of hazardous waste generated by these facilities is not reported. Inspection, compliance assistance, and enforcement activities at hazardous waste facilities resulted in the safe management of an estimated 4,739 gallons and 113 tons of hazardous waste that otherwise may have been mismanaged and presented potential health or environmental risk. In addition, the program continues to make significant progress in cleaning up contamination at permitted hazardous waste management facilities. The national goal is for final remedies to be constructed and fully operational at 95 percent of these facilities by 2020, although many measures will continue for years.

HAZARDOUS WASTE PROGRAM

North Carolina has been authorized to implement the federal hazardous waste regulatory program in lieu of the Environmental Protection Agency (EPA) since 1980. Federal authorization is the process by which EPA delegates primary program implementation and enforcement responsibility to states, while maintaining an oversight role to ensure national consistency. The federal program, established under the Resource Conservation and Recovery Act (RCRA), regulates the generation, transport, treatment, storage, disposal, and recycling of hazardous waste. The program also governs the environmental remediation of hazardous waste treatment, storage, and disposal facilities that have been contaminated by prior waste management activities. The North Carolina Hazardous Waste Program is implemented by the Hazardous Waste Section (HWS) within DENR's Division of Waste Management.

HAZARDOUS WASTE GENERATION, MANAGEMENT, AND REMEDIATION

Generation

"Hazardous waste" is defined as industrial materials destined for disposal that may be ignitable, corrosive, reactive and/or toxic and thus poses a risk to human health and the environment if improperly managed.

The comprehensive data for the amount of hazardous waste generated in North Carolina is available biennially thru RCRAInfo (see Information Management Section, page 3). Therefore, 2012 data is not yet available. The most recent report available is the 2011 National Hazardous Waste Biennial Report. The next national reporting cycle is 2013 and will be available to the public on December 10, 2014.

In state fiscal year 2012-13, there were approximately 695 North Carolina Large Quantity Generators[1] listed in RCRAInfo. The current number of Large Quantity Generators is 683. The number of generators in the universe can fluctuate daily. The amount of waste generated in fiscal year 2012 – 2013 was 74,257 tons, with 362 facilities reporting.

In state fiscal year 2012-13, there were approximately 2,273 Small Quantity Generators[2] located in North Carolina, as well as several thousand Conditionally Exempt Small Quantity Generators[3]. Such generators are subject to reduced reporting and regulatory requirements because they are often small businesses for whom periodic reporting could be overly burdensome, and because the amounts of waste generated at each individual site are less likely to present significant risks to human health and the environment. However, these facilities collectively generate a significant amount of hazardous waste that must be managed properly and in compliance with applicable rules. Significant resources are devoted to technical assistance, outreach, and compliance activities at these facilities.

Management

The comprehensive data for the amount of hazardous waste that that was managed in North Carolina is available biennially thru RCRAInfo. Therefore, 2012 data is not yet available. The most recent report available is the 2011 National Hazardous Waste Biennial Report. The next national reporting cycle is 2013 and will be available to the public on December 10, 2014.

In state fiscal year 2012-13 North Carolina's ten commercial hazardous waste facilities received and processed 12,372 tons of hazardous waste from offsite.

Remediation

The program continues to make significant progress in overseeing the remediation of contamination at permitted hazardous waste management facilities. The national goal is for final remedies to be constructed and fully operational at 95 percent of these facilities by 2020, although many measures will continue for years.

Seventy-nine active hazardous waste treatment, storage and disposal facilities are located in North Carolina. Each facility is governed by a permit, an enforceable order, or another operational control mechanism for management and/or remediation of hazardous waste. There are 90 facilities subject to the RCRA Corrective Action Program, which addresses remediation of solid waste management units at permitted hazardous waste facilities. The Hazardous Waste Program tracks the progress of remediation at these sites using four

[1] Large Quantity Generators are defined as facilities that generate 1,000 kg or more of hazardous waste per month, or 1 kg or more of acutely hazardous waste per month.
[2] Small quantity generators are facilities that generate between 100 and 1,000 kg of hazardous waste per month.
[3] Conditionally Exempt Small Quantity Generators generate hazardous waste at a rate less than 100 kg per month.

environmental indicators: 1) human exposure controlled, 2) groundwater contamination controlled, 3) cleanup remedy selected and 4) cleanup remedy constructed. The national goal is for 95% of these facilities to meet all four environmental indicators by October 1, 2020 (Federal Fiscal Year). Currently in North Carolina, 90% of the facilities have human exposures controlled, 84% have groundwater contamination controlled, 61% have a remedy selected and 61% have a remedy constructed.

To achieve the national goal of 95% of the facilities having a remedy constructed by EPA federal fiscal year 2020, the Hazardous Waste Section has established the following goals:

	EPA FFY-14	EPA FFY-16	EPA FFY-18	EPA FFY-20
Human Exposures Controlled	92%	96%	96%	97%
Groundwater Contamination Controlled	86%	94%	96%	97%
Remedy Selected	65%	76%	85%	95%
Remedy Constructed	62%	73%	84%	95%

COMPLIANCE AND ENFORCEMENT

The Hazardous Waste Program is responsible for implementing inspection, compliance and enforcement activities. The environmental benefits achieved through compliance and enforcement activities are identified each year in order to measure the overall success of the program in meeting environmental goals. During fiscal year 2012-13, the program's actions have ensured the safe management of 4,739 gallons and 113 tons of hazardous waste that otherwise may have been mismanaged. These actions also ensured that more than 542 individuals that could have been adversely affected were protected. Fifteen sites have been cleaned up with "no further action" achieved.

INFORMATION MANAGEMENT

Comprehensive information about North Carolina's hazardous waste facilities is entered and stored in the national hazardous waste database known as Resource Conservation and Recovery Act Information (RCRAInfo). This database was developed jointly by EPA and the states and is managed by the EPA. RCRAInfo contains comprehensive information on facilities that generate and/or manage hazardous waste in the state, as well as all the HWS's activities affecting these facilities. To view regulatory information for specific hazardous waste sites located in North Carolina, visit http://www.epa.gov/enviro/. For details about the Division of Waste Management and the Hazardous Waste Section, visit the division's website http://portal.ncdenr.org/web/wm/.

HAZARDOUS WASTE PROGRAM DEVELOPMENT

The Hazardous Waste Program will continue to support safe hazardous waste management in North Carolina by:

- supporting opportunities for waste minimization and recycling and supporting annual generator workshops that help educate the largest generators about hazardous waste regulations and the expectations of hazardous waste inspectors;

- continuing to seek EPA authorization to maintain the program's authority to implement the federal program;

- improving the quality of hazardous waste data for hazardous waste trend analysis and sound decision-making; and

- participating in EPA rulemaking projects. (Examples include potential requirements for large and small generators to re-notify of hazardous waste activity, establishing standards for episodic generators, requiring labeling for small and large quantities stored in central accumulation areas and satellite areas, and other proposals as they are developed.)

HAZARDOUS WASTE REDUCTION INITIATIVES

The Hazardous Waste Program promotes waste minimization and recycling in all of its programs. Some of these activities include:

- incorporating pollution prevention training (based on targeted priority chemical waste streams) into annual generator workshops, industry meetings and enforcement settlement negotiations;

- reviewing facility requests for alternative management practices for hazardous waste (use/reuse, substitution, reclassification and delisting);

- supporting intervention projects to reduce/eliminate the presence of priority chemicals via partnerships with other agencies and

- ensuring that generators continue to develop programs to minimize or reduce the volume and quantity or toxicity of hazardous waste by requiring hazardous waste generators to complete an annual waste minimization questionnaire. These questionnaires are reviewed to identify trends as well as facilities seeking technical assistance in their waste reduction activities.

COST OF HAZARDOUS WASTE MANAGEMENT PROGRAM

Hazardous Waste Program
Expenditures
July 1, 2012 to June 30, 2013

Salaries and Fringes		
Receipts	$	1,136,004.96
Appropriations	$	-
Federal	$	1,783,202.68
Purchased Services		
Receipts	$	161,859.69
Appropriations	$	3,239.62
Federal	$	256,087.87
Supplies		
Receipts	$	7,170.99
Appropriations	$	-
Federal	$	10,244.66
Other Expenses & Adjustments		
Receipts	$	1,312.28
Appropriations	$	-
Federal	$	138,568.81
Property Plant & Equipment		
Receipts	$	21,678.94
Appropriations	$	-
Federal	$	83,184.94
Intergovernmental Transfer Federal		
Receipts	$	5,448.00
Appropriations	$	-
Federal	$	8,653.02
Total	***$***	***3,616,656.46***

(Hazardous Waste Fee)		
	$	1,333,474.86
Federal	$	2,279,941.98
Appropriations	$	3,239.62
Total Receipts	***$***	***3,616,656.46***

II. Resident Inspector Program

EXECUTIVE SUMMARY

The Resident Inspector Program has been operating for more than 22 years in the North Carolina Department of Environment and Natural Resources' Division of Waste Management, utilizing a multimedia approach in its inspections which covers regulatory responsibilities for which DENR is authorized, such as hazardous waste management and treatment requirements, workplace safety, air emissions requirements, wastewater treatment and discharge requirements. Resident inspectors also evaluate commercial hazardous waste facilities for potential violations in other regulatory areas, such as, the Department of Labor's Occupational Safety & Health Act and the Department of Transportation's hazardous materials transportation regulations, and when necessary, make recommendations to the facilities and/or make referrals to the authorized agency or agencies. The program continues to inspect the state's ten permitted commercial hazardous waste treatment, storage and disposal facilities. For fiscal year (FY) 2012-2013, the Resident Inspector Program operated with a staff of 4.5 positions. The program's operating fee-based budget collected $335,284 and program expenses totaled $351,681. Program staff conducted 523 multi-media inspections and achieved a compliance rate of 99.0%, with two Notices of Deficiency and three Notices of Violation issued.

PROGRAM

The Resident Inspector Program was established "...to enhance the ability of the department to protect the public health and the environment by providing the department with the authority and resources necessary to maintain a rigorous inspection and enforcement program at commercial hazardous waste facilities" [G.S. 130A-295.02(f)]. The program monitors all aspects of the commercial hazardous waste facilities in North Carolina, provides facility support through assistance and education, assures compliance with laws and rules administered by the Division of Waste Management and may include enforcement of laws or rules administered by any other state agency through a memorandum of agreement.

The Resident Inspector Program resides within the Hazardous Waste Section's Compliance Branch. For the FY 2012-2013, the program was comprised of three resident inspectors, one administrative assistant, and one (half-time) program supervisor.

During FY 2012-2013, the Resident Inspector Program staff conducted a total of 523 multimedia inspections at North Carolina's ten commercial hazardous waste treatment and storage facilities. This performance exceeded the statute-mandated minimum of 456 inspections by approximately 14.5%. [See Attachment A for details.]

PROGRAM FUNDING

The Resident Inspector Program is intended to be funded solely by fees collected from the commercial hazardous waste facilities [N.C. G.S. 130A-295.02(h)]. These fees are based upon each facility's category ranking and the volume (tons) of hazardous waste received. For FY 2012-2013, facility ranking fees totaled $288,933 and tonnage fees equaled $46,351, (Hazardous Waste tonnage received increased by approximately 8.2% over previous year – see Attachment A).

FY 2012-2013, the budget was developed using anticipated revenues from Resident Inspector Program fees of approximately $342,756. The actual Resident Inspector Program receipts in FY 2012-2013 totaled $335,284,

and the Resident Inspector Program expenses totaled $351,681. A shortfall of $16,397 was realized due to a one-time retiree unused vacation leave/special leave cost and due to late receipt of Resident Inspector Program facility fees after the FY 2012-2013 accounting deadline date. An inter-section transfer was approved to address the shortfall.

PROGRAM RESULTS

Resident Inspectors offer compliance assistance routinely, often in the form of education, technical assistance and recommendations or comments during the site visits. Since the inspectors visit these facilities at least twice a month, they become very familiar with facility management, operations and site conditions. Resident Inspectors can easily identify potential problem areas and work with that facility towards a permanent solution. If a facility begins to have operational or compliance problems, the inspector reviews these problem areas during each visit to provide assistance and to keep the facility's compliance awareness high. Inspectors communicate frequently with facility management and front-line workers to address conditions or behaviors before they become a compliance issue, to clarify permit conditions and current regulatory requirements, to explain the reasons for the requirements, and to communicate the potential risks and costs of noncompliance. During the past fiscal year, resident inspectors issued two Notices of Deficiency and three Notices of Violation to commercial facilities. [See Attachment A for details.]

At the conclusion of the program's 22nd year, the Resident Inspector Program staff continues to provide rigorous oversight of commercial hazardous waste facilities in the state. This is reflected in the facilities' overall compliance rate of 99.0%. The staff constantly seeks new approaches and initiatives to ensure that commercial hazardous waste facilities can operate in a way that protects public health and the environment. The Resident Inspector Program staff has also worked with the commercial facilities to maintain compliance in a challenging economy; economic pressures have forced many hazardous waste facilities to operate with fewer staff and employees with less training, all of which can lead to noncompliance. The Resident Inspector Program staff will continue to work toward a high level of compliance at the commercial hazardous waste facilities in North Carolina through facility education, technical assistance and regulatory oversight activities.

Resident Inspector Program
ATTACHMENT A

Commercial Treatment/Storage/Disposal Hazardous Waste Facilities' Data FY 2012 - 2013

FACILITY	Facility Ranking	Minimum # of Inspections	Actual # Inspections Conducted	HW Tons Received FY 2012-13	HW Tons Received FY 2011-12	Notices of Deficiency Issued	Notices of Violation Issued	Compliance Orders Issued
CLEAN HARBORS	3	72	81	3057.51	3,442.74	0	0	0
DETREX	2	48	58	763.42	907.76	1	0	0
DART**	3	72	77	709.59	89.02	0	1	0
ECOFLO	3	72	85	3268.49	2,850.50	0	1	0
NEXEO SOLUTIONS*	2	48	56	2304.32	1,816.06	0	1	0
SK-ARCHDALE	1	24	29	149.56	164.17	0	0	0
SK-CHARLOTTE	1	24	26	64.58	80.75	0	0	0
SK-RALEIGH	1	24	32	86.10	98.8	0	0	0
SK-ST. PAULS	1	24	30	81.96	96.91	1	0	0
VEOLIA E. S.	2	48	49	1886.69	1,815.77	0	0	0
TOTAL		456	523	12,372.22	11,362.48	2	3	0

** Formerly Ashland Distribution*
***Formerly Heritage Environmental Services*

III. Mercury Switch Removal Program

EXECUTIVE SUMMARY

The Mercury Switch Removal Program has been operating for eight years in the North Carolina Department of Environment and Natural Resources' (DENR) Division of Waste Management. The program continues to inspect the end-of-life vehicle dismantling, crushing and shredding facilities throughout the state. For FY 2012-2013, the Mercury Switch Removal Program operated with a staff equivalent to three and one-half positions supplied by the Hazardous Waste Section's Compliance Branch. The program's operating budget is funded by fees collected as a portion of the N. C. Department of Transportation (DOT) application for certificate of vehicle title fee. The program's total operating costs were $553,906, which includes switch reimbursements at $5.00 per mercury switch removed and recycled/disposed as Resource Conservation and Recovery Act (RCRA) "Universal Waste", totaling $231,360 to the dismantlers, crushers and shredders. Program staff conducted 360 inspections at 289 covered facilities for compliance with state and federal RCRA regulations. Two Notices of Violation, two Notices of Deficiency and ten verbal warnings were issued.

PROGRAM

Through S.L. 2005-384, further amended by S.L. 2007-142, the General Assembly acted to reduce the amount of mercury entering the state's environment. As stated in G.S. 130A-310.51, the purpose of the program is to reduce the quantity of mercury released into the environment by removing mercury switches from "end-of-life" vehicles and by creating a removal, collection, and recovery program for those switches. Specifically, the law requires all vehicle dismantlers, vehicle recyclers, vehicle crushers and/or vehicle scrap processors to remove, collect, and recover mercury switches contained in "end-of-life" vehicles prior to crushing, shredding or smelting the vehicles.[1]

To ensure compliance with requirements set out in G.S. 130A-310.50 through 310.57, the Division of Waste Management's Hazardous Waste Program created the Mercury Switch Removal Program (MSR Program). The MSR Program is coordinated through the Hazardous Waste Program's Compliance Branch.

During FY 2012-13, MSR Program inspectors conducted a total of 360 inspections, visiting more than 289 facilities throughout North Carolina's 100 counties. The site visits serve to determine if the facility was subject to the law and to acquaint those facility operators who are subject to the law with the legislated requirements. Additional compliance assistance was given by the inspectors as needed regarding the MSR Program and other RCRA and Clean Water Act regulated requirements.

In accordance with the National Vehicle Mercury Switch Removal Program (NVMSRP), North Carolina's MSR Program receives support from a corporation, End-of-Life Vehicle Solutions (ELVS), which was formed by and represents the major automobile manufacturers. ELVS provides the following support to North Carolina's vehicle dismantlers/recyclers, vehicle crushers, and scrap processing facilities:

- Educational materials regarding mercury switch removal, guidance on which vehicles contain mercury switches, instructions on how to locate, identify and remove Mercury Switches;

[1] The mercury switches typically control convenience lighting in the trunk and under the hood.

- US DOT appropriate storage/shipping containers, including applicable labeling and shipping documents necessary for the shipment of the mercury switches;
- Transportation of the mercury switches in a timely fashion to a RCRA-permitted mercury recycling/disposal facility;
- Recycling of the mercury switches by a qualified mercury retort facility or, when recycling is not feasible, for the proper disposal of the mercury switches at a RCRA-permitted disposal facility; and
- Indemnification from liability for participating vehicle dismantlers, scrap processing facilities, vehicle crushers and others removing switches through this program once mercury switches are collected by the ELVS contractor.

With this level of support from the automobile manufacturers, the dismantlers/recyclers, vehicle crushers, and scrap processing facilities can effectively remove the mercury switches from the end-of-life vehicles prior to crushing, shredding or smelting of these vehicles.

When the switches are removed from the vehicles, they are placed in the supplied DOT container, which is labeled to identify it as "Universal Waste – Mercury Containing Equipment" along with the date on which the first switch was placed in the container. When the container is full (with a maximum of 454 switches per container) or the date on the container approaches one year, the container is shipped to the ELVS contracted receiving facility (shipping is paid for by ELVS). ELVS continues to provide new containers and supplies as needed.

PROGRAM RESULTS

As directed by ELVS, the contracted facility receiving the collected mercury switches supplies data to the NC MSR Program, detailing: the number of switches received, the date the switches were received and the name and location of the facility that shipped the switches (dismantler, crusher, shredder, etc.). [Annualized receiving data is listed on Attachment B.]

The NVMSRP, in conjunction with ELVS, supplies an estimate(s) (based on several national studies) projecting the number of end-of life vehicles containing mercury switches being retired each year (broken out by individual state). [These estimates are updated periodically as the models are adjusted from new data gathered.] The switch retirement estimate is also known as the number of "mercury switches available for removal." [Annualized estimated availability data is listed on Attachment B.]

The effectiveness of the MSR Program is measured by the mercury recovery performance ratio, which is calculated by dividing the number of mercury switches received by the ELVS contractor from North Carolina for the period of the fiscal year by the number of mercury switches available for removal in North Carolina for that same time period. The same calculations are made using the total national switch collection and availability. The results are stated as a percentage.

For FY 2012-2013 40,407 mercury switches (managed as "Universal Waste") were received by the ELVS contractor from North Carolina vehicle dismantlers/recyclers, vehicle crushers, and scrap processing facilities. This year's MSR Program performance ratio calculated is 51.47%, which exceeds the NVMSRP performance ratio for that period is 20.46%. [Full tabulated results are shown on Attachment B.]

PROGRAM FUNDING

The MSR Program is funded by fees collected as part of the DOT fee for application of vehicle title certificates. Fifty cents of each $40-per-vehicle title fee is placed in the Mercury Pollution Prevention Fund in DENR. Under GS 130A-310.54(b)(1)&(b1), the Mercury Pollution Prevention Fund, in part, reimburses the MSR Program for: (a) Five dollars ($5.00) for each mercury switch, paid to a vehicle crusher, vehicle dismantler, vehicle recycler, or scrap vehicle processing facility, for each switch removed by them and sent to the destination facility in accordance with the NVMSRP for recycling or disposal and (b) Costs incurred by the department in administering the program. Operationally, the funding provides for three and one-half full-time equivalent positions, travel and equipment expenses, and mercury switch removal reimbursement payments. For greater coverage and efficiency, program duties are actually, on a part-time basis, spread among thirteen field inspectors, one chemist, four supervisors and an administrative assistant; MSR funding pays for the portion of each person's time spent implementing the program. FY 2012-2013 revenues were approximately $1,046,489. Reimbursement paid to the vehicle dismantlers/recyclers, vehicle crushers, or scrap processing facilities for removal of the mercury switches with proper recovery and disposal ($5.00 per switch) totaled $231,360; and administrative costs totaled $322,546. Total MSR Program costs for FY 2011-2012 equaled $553,906. Additional inter-section transfers totaling $16,397 yielded a net increase of $476,186 in the fund balance for the year.

PROGRAM RANKING

During FY 2012-2013, North Carolina ranked #1 in the nation with respect to mercury switch collection efficiency, #2 in the nation for total number of mercury switches collected and #5 in the nation with respect to the number of participating salvage facilities. During FY 2012-2013 alone, more than 89 pounds of mercury (from more than 40,407 switches) have been prevented from being released to the environment in North Carolina. [See Attachment B.]

MSR Program - ATTACHMENT B
State-by State Comparison of Program Effectiveness

STATE	Number of Participants (Rank)	Total lbs. Mercury Recovered	Estimated Number of Switches Available	Total Switches Recovered (Rank)	Percent of Switches Removed (Rank)
2012 -2013 US Total	9639	1,354.34	3,005,000	614,825	20.46
Alabama	93	26.05	68,500	11,828	17.27
Alaska	15	0.45	8,500	205	2.41
Arizona	78	7.48	47,000	3,396	7.23
Arkansas	246	12.32	30,500	5,592	18.33
California	565 (#2)	261.8	284,500	118,856 (#1)	41.78 (#4)
Colorado	84	34.53	42,000	15,677	37.33 (#5)
Connecticut	58	5.89	36,500	2,674	7.33
Delaware	29	1.15	8,000	522	6.53
Florida	362 (#7)	45.51	136,000	20,622	15.19
Georgia	168	52.89	81,500	24,011 (#6)	29.46 (#9)
Hawaii	20	0	7,500	0	0
Idaho	64	4.16	19,000	1,888	9.94
Illinois	446 (#6)	86.59	147,000	39,310 (#3)	26.74 (#10)
Indiana	479 (#4)	52.56	91,000	23,863 (#7)	26.22
Iowa	356 (#8)	27.2	51,500	12,348	23.98
Kansas	90	5.84	37,000	2,653	7.17
Kentucky	116	11.4	55,500	5,174	9.32
Louisiana	325	11.75	49,000	5,334	10.89
Maine	98	8.79	17,000	3,989	23.46
Maryland	163	22.45	42,500	10,192	23.98
Massachusetts	199	21.65	55,000	9,828	17.87
Michigan	296	42.33	154,500	19,219 (#10)	12.44
Minnesota	271	57.65	57,500	26,171 (#5)	45.51 (#3)
Mississippi	83	28.46	28,000	12,922	46.15 (#2)
Missouri	214	19.05	70,000	8,649	12.36
Montana	77	5.33	16,000	2,422	15.14
Nebraska	44	3.84	26,000	1,745	6.71
Nevada	33	8.12	16,500	3,685	2.23
New Hampshire	67	1.26	16,000	572	3.58
New Jersey	203	15.62	92,500	7,090	7.66
New Mexico	59	6.65	22,000	3,018	13.72
New York	558 (#3)	37.67	169,000	17,101	10.12
North Carolina	454 (#5)	89	78,500	40,407 (#2)	51.47 (#1)
North Dakota	33	2.46	13,000	1,116	8.58
Ohio	350 (#9)	45.34	154,000	20,585 (#9)	13.37
Oklahoma	101	2.95	47,500	1,341	2.82
Oregon	110	16.13	42,500	7,322	17.23

MSR Program - ATTACHMENT B
State-by State Comparison of Program Effectiveness

STATE	Number of Participants (Rank)	Total lbs. Mercury Recovered	Estimated Number of Switches Available	Total Switches Recovered (Rank)	Percent of Switches Removed (Rank)
Pennsylvania	340 (#10)	13.7	136,000	6,218	4.57
Rhode Island	77	6.97	8,500	3,163	37.21 (#6)
South Carolina	133	13.71	41,000	6,226	15.19
South Dakota	34	0.75	14,500	341	2.35
Tennessee	143	26.5	67,500	12,032	17.83
Texas	768 (#1)	77.6	169,000	35,229 (#4)	20.85
Utah	148	12.11	21,000	5,498	26.18
Vermont	71	0.35	6,000	159	2.65
West Virginia	48	0.6	24,000	272	1.13
Wisconsin	303	50.74	67,500	23,037 (#8)	34.13 (#7)
Wyoming	28	0.05	7,500	23	0.3