U. S. Environmental Protection Agency
State Innovations Grant Program

Final Report
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Auto Salvage Environmental Results Program: Improved Compliance & Performance Through Innovation

Rhode Island Department of Environmental Management
Office of Technical and Customer Assistance
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http://www.dem.ri.gov/

Project Title: ***Auto Salvage Environmental Results Program: Improved Compliance And Performance Through Innovation***

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Funding Requested: **$200,075.00**

Project Period: August 1, 2004 - March 31, 2009 (with one year extension)

1. Purpose & Goals:

The Rhode Island Department of Environmental Management Office of Technical & Customer Assistance's (OTCA) objective for this project was to reduce environmental health risks in the auto salvage yard facility sector by improving regulatory efficiency and industry compliance through development of a sustainable Environmental Results Program that offers a comprehensive, statewide multi-media program, particularly relating to air, water, and RCRA (solid and hazardous waste) compliance issues. The program consists of three major parts:

- Certification of auto salvage yard facilities
- Statistically-based performance measurement
- Written, telephone, and on-site compliance and pollution prevention technical assistance as needed

RIDEM regulatory stakeholders, industry representatives, and project partners were recruited to assist RIDEM's OTCA in planning, designing, and implementing to meet the goals and objectives of the project.

2. Project Partners:

- Rhode Island Department of Environmental Management
- University of Rhode Island, Center for Pollution Prevention & Environmental Health
- Narragansett Bay Commission, Pollution Prevention Program
- U. S. Environmental Protection Agency

Project Stakeholders:

There were twenty-two (22) project stakeholders, both from governmental agencies and from the industry. It included representatives from project partner organizations, and other entities with an interest in auto salvage yard operations, including representatives from programs in RIDEM in the air, water, waste, and technical and compliance assistance arenas, EPA, University of RI, the Narragansett Bay Commission, the Rhode Island League of Cities & Towns (to represent local regulatory authority allowed by Rhode Island law), the local auto salvage trade association, and auto salvage yard facility operators.

• Thomas E. Armstrong	RIDEM, Office of Technical & Customer Assistance
• Richard Enander, PhD.	RIDEM, Office of Technical & Customer Assistance
• Ronald Gagnon, PE	RIDEM, Office of Technical & Customer Assistance
• Ted Burns	RIDEM, Office of Air Resources
• Sean Carney	RIDEM, Office of Compliance & Inspection
• Christopher John	RIDEM, Office of Compliance & Inspection
• Mark Dennen	RIDEM, Office of Waste Management
• Margarita Chatterton	RIDEM, Office of Water Resources
• Beth A. M. Termini, Esq.	US EPA Region 1/NCEI
• Eugene Park, PhD.	URI Center for Pollution Prevention & Environmental Health
• James McCaughey, PE	Narragansett Bay Commission, Pollution Prevention Program
• Barry Wenskowicz	Narragansett Bay Commission, Pollution Prevention Program
• David Aucoin	Narragansett Bay Commission, Pollution Prevention Program
• Jeanne McCarthy	RI Department of Business Regulation
• Paul D'Amado	Bill's Auto Parts; President, Auto Recyclers Association of RI
• Chris Petropolous	General Auto Recycling, Inc.
• Harry Hall	Hall's Garage, Inc.
• Dave Holzinger	LKQ Advanced Auto Recycling
• Andrew Morabito	Metals Recycling, LLC/Schnitzer Northeast
• John Hamilton	Metals Recycling, LLC/Schnitzer Northeast
• Doug Fleurent	Privilege Auto Parts
• Mia Manzotti, Esq.	Rhode Island League of Cities & Towns

3. Rhode Island's Auto Salvage Yard Industry:

Rhode Island's auto salvage yard facility sector is diverse, with facilities located in twenty-six (26) of the State's thirty-nine (39) cities and towns. The auto salvage yards are found in urban, suburban, and rural communities in the state, which have some different areas of major concern. Thirty-five (35) licensees are found within the Narragansett Bay Commission's service area, making facility environmental compliance and proper management and operation very important to them as well as to RIDEM and EPA, and making them an excellent partner in the project.

In order to legally operate, facilities are required to be licensed by the Rhode Island Department of Business Regulation (RIDBR). The license is active for a three (3) year time period, and must be renewed with RIDBR in that time period in order to maintain it.

At the beginning of the project in 2004, there were eighty-five (85) holders of Rhode Island Auto Wrecking & Salvage Yards licenses. As of June 30, 2008, there were fifty-nine (59) of those licensees that were in operation as auto salvage yard facilities. The remainder of the licensees represented facilities now out of business, inactive, and in related businesses such as towing operations. In early 2009, there were seventy-six (76) holders of Auto Wrecking & Salvage Yards licenses. The reason for the reduction in the number of licensees and the presence of inactive licensees is that some operators retain their license even though their operation may be inactive. In some cases the facility or property may be for sale, with a selling point being that the facility has a RIDBR license. With a facility/property sale or complete closure, licensees will choose not to renew their license. Licensees are not required to continue to have an actively operated facility to maintain the license with RIDBR.

In the past, the Rhode Island auto salvage yard industry has been under-regulated by RIDEM, primarily due to agency resource limitations. Site inspections and enforcement activities have been sporadic, and limited to responding to specific complaints about facilities, and audits of major recycling operations where incidents of environmental contamination were found to occur. Response to complaints generally resulted in a single media inspection and enforcement response to the specific problem reported, rather than using a multi-media approach looking across all aspects of the facility's operations, that allows review and response to cross-media impacts such as air pollution issues, water issues including stormwater management, auto mercury switch management, and fluid management.

The objective of creating an Environmental Results Program (ERP) was pursued to assist in addressing this situation and to improve environmental regulatory compliance at facilities, as well as promoting the use of pollution prevention measures and best management practices. ERP is an integrated approach to addressing environmental problems associated with various business sectors that involves compliance assistance, facility self-certification, and statistically based performance assessment. To implement ERP in the auto salvage yard facility sector, RIDEM developed and provided easy-to-read and understand documents for operators, provided for self-auditing/certification by operators, and provided compliance and technical assistance as needed. A complete description of the ERP model is provided in the States ERP Consortium Fact Sheet, May 2008 available at: www.erpstates.org. Comprehensive information on Rhode Island's Auto Salvage ERP is available at: http://www.dem.ri.gov/programs/benviron/assist/asy/index.htm

4. Initially Projected Outputs and Outcomes:

The following outlines the outputs and outcomes that were projected before the project was initiated, and were presented in the Project Work plan that was prepared in June 2004. Section 7 in this report outlines what was actually achieved with the project.

1. Increased awareness and knowledge by auto salvage yards operators of environmental

regulatory requirements and compliance and management issues as a result of project documents that are easy to read and understand, workshops, and compliance assistance provided through the project.

2. Improvements in environmental performance as indicated through tracking EBPI's identified for the project.

3. Improvements in identifying sources of contamination and working to minimize sources and impacts of it, through an environmental risk assessment component in the project.
   - A key component in this assessment is the identification of auto salvage yards located in areas with the availability of public water and wastewater treatment systems, or using private systems due to a lack of availability of public systems.

4. Information and "lessons learned" in the project will be applied to future iterations of the workbook, checklist, and overall program structure.

5. Increasing improvements in environmental performance over time as the industry gains experience working with DEM-OTCA, and by using self-educational tools commonly and successfully employed in Environmental Results Programs.
   - It is anticipated that voluntary self-certification will be conducted every two years, and that performance measurement statistics will track all future progress.

5. General Approach Used to Implement the Project:

From the beginning, all four (4) project partners were engaged and actively involved in developing this new program for Rhode Island's auto salvage yard facilities, with a goal of developing a sustainable and comprehensive program available on a statewide basis. This development included the following basic components:

A. Staff began the project by defining the universe of auto salvage yard facilities in the State of Rhode Island, aided by a list of RIDBR licensees. This included identifying facilities with active operations, license holders with inactive facilities that were no longer in business/operation or are for sale, and license holders without auto salvage operations but were involved in other related business areas such as towing, auto sales, and auto repair.

In the first quarter of 2007, staff completed the identification of active and inactive auto salvage yard facilities. This universe identification step was considered to be very important in accurately targeting those facility licensees actually operating auto salvage yard facilities to receive ERP Workbooks, Certification Checklist Packages, and certification information and compliance assistance services. It was also important in providing more accurate information when RIDEM analyzed inspection and certification data, in order to evaluate facility as well as sector performance.

At the end of June 2008, there were eighty-six (86) Holders of Auto Salvage & Auto Wrecking licenses from RIDBR, with fifty-nine (59) of those being actively operated Auto Salvage Yard Facilities.

The program was designed to have voluntary participation, so RIDEM staff knew that it was important for the program to be user-friendly, stress the benefits to auto salvage yard operators of participating in the program, and stressing that operators must comply with all regulatory requirements whether they participate or not.

After careful consideration, the program was designed to include re-certification every three (3) years rather than two (2) years as initially proposed, and will accommodate certification by facility operators desiring to begin participation and/or receive compliance or technical assistance in the program's out-years.

B. Early in the development process, staff developed a draft compliance checklist to be used in the performance of baseline audits, followed later by a draft checklist to be used in the certification program. A Facility Questionnaire was developed and mailed to Auto Salvage Yard Facilities during the initial stages of program development. It was an important tool in helping to gather basic information about the facilities, and helped to better characterize the sector. It should be noted that this task, while very important in developing the program, was completed outside of the scope of the grant, and did not utilize the resources of the grant in any way. It is found in the Appendix of this report.

RIDEM finalized membership of the stakeholder Committee in the second quarter of 2005, and it is listed on Page 2 of this report. Project stakeholders were fully engaged in the development and review process of project documents and their design. Governmental, or first phase stakeholders, were engaged in the initial stages of document and program design. The authors of the program's documents were Eugene Park, PhD (URI), Thomas Armstrong (RIDEM/OTCA), and Richard Enander, PhD (RIDEM/OTCA). RIDEM felt that easy-to-read and understand program documents were critical to participation by auto salvage yard operators and the success of the program. The documents developed included the Certification Workbook, the Certification Checklist Package, and fact sheets. Both the Workbook and Certification Checklist Package were multi-media and covered all basic aspects of auto salvage operations, and included regulatory compliance issues, best management practices, and pollution prevention measures. Both documents are closely tied together, with the Workbook assisting the operator in completing each checklist question. Areas of concern that were addressed included air pollution control, refrigerant recovery, antifreeze management, lead acid batteries, fuel/gasoline, auto mercury switches, waste tires, used oil, wastewater discharge, stormwater management, hazardous waste, and management of other fluids.

The Certification Checklist Package includes Return-to-Compliance (RTC) Plans, to be completed and submitted for each regulatory requirement out of compliance, with a plan that the operator has to comply with the requirement, and the time frame for completing it. Return-to-Compliance Plans are returned with the completed checklist, and are pertinent only to regulatory requirements and not best management practices. Of the 125 major checklist questions, only 53 questions pertained to regulatory requirements and thus would require a RTC Plan for non-compliance; the remainder of the questions pertained to best management practices. The package includes a Return-to-Compliance Completion Form that is completed and sent to RIDEM when the issue out of compliance has been corrected. The package also

included a Non-Applicability Statement form that could be completed and submitted to RIDEM by RIDBR licensees not involved in auto salvage yard operations, such as towing services.

EPA staff reviewed draft documents and provided comments to the RIDEM project manager. In early 2007, after the draft documents and design were developed to allow for review, reaction, and input from the industry stakeholders, or second phase stakeholders, they were brought into the review process.

RIDEM also felt that making appropriate training workshops for facility operators as well as key staff available before certification took place was very important, to assist them in evaluating their compliance in the self auditing/certification process, as well as becoming more familiar with applicable regulations, best management practices, and key areas of concern in auto salvage yard operations. Three (3) one half day workshops were held during the project period, with the workshop agendas found in the Appendix. Details and results of the workshops are found on Pages 9 and 10 of this report.

Another important component was the availability of compliance and technical assistance provided by RIDEM and URI as needed, by means of on-site visits, telephone, email, and written assistance before, during, and after certification was completed.

C. Key staff from RIDEM, URI, and NBC participating in regularly scheduled project meetings throughout the project. Staff from these three entities completed randomly selected baseline audits, with thirty-seven (37) facilities being audited.

The President of the Auto Recyclers Association of Rhode Island (ARARI) was brought into the process very early on, and was very supportive of the program's goals and its development with ARARI's membership, as well as a general goal of improving environmental compliance and operating standards of auto salvage yard facilities. Even before the development of this project, he advocated improving environmental compliance and operating standards with his membership, and this project enhanced his opportunity to further that goal. He was active in the stakeholder process, discussed the program at association meetings, and strongly recommended that all members participate in the program.

D. An Auto Salvage Yard Facilities Certification Program webpage was developed, and placed on the RIDEM website in spring 2007, prior to implementation of the program. The webpage was designed to provide facility operators with information and documents to be used in the certification process, as well as be available as an ongoing informational resource, and to provide a current Certified Facilities List of auto salvage yard facilities that submitted completed certification packages.

E. Program documents were mailed to auto salvage facility operators in spring 2007, prior to the program introductory workshop and kick-off that was held in June 2007. This was done to allow operators time to review them before attending the kick-off, and allow any questions to be answered. To participate in the program, facility operators were directed in the cover letter enclosed with the package, to submit completed Compliance Certification

Checklists to RIDEM by September 15, 2007. A follow-up letter was sent were made to all facility operators in August 2007 by the project manager, to encourage their participation in the program and to offer assistance if needed.

While compliance with underlying regulatory requirements is mandatory, participation in the program is voluntary. The benefits of participating in the program were strongly advocated to facility operators throughout the project, at workshops and meetings attended, in letters, and in the program documents.

Compliance Certification Checklists that were submitted were reviewed by RIDEM staff for accuracy and missing information, with follow-up needed being made with operators by telephone call, email, or mail.

F. Randomly selected post-certification audits were completed by URI, RIDEM, and NBC staff, with twenty (20) facilities being audited, and with an additional sixteen (16) receiving site visits by URI staff. Random samples (facility audits) were required to make 1) statistically valid statements about the regulated universe from which the sample was drawn, and 2) meaningful statistical comparisons among baseline and post-certification data sets. Statistical analyses were conducted in accordance with the methods published in "Environmental Health Practice: Statistically Based Performance Measurement," American Journal of Public Health. 2007:97(5):819-824 and EPA's "Generic Guide to Statistical Aspects of Developing an Environmental Results Program," available at: http://www.epa.gov/erp/roadmap/resources/erp_statisticalguide_4-25-2003.

G. Work to improve the identification of contaminant sources and to minimize impacts through an environmental risk evaluation approach was undertaken. A key part of this evaluation was the identification of auto salvage yards located in areas with the availability of public/private water supply and wastewater treatment/private systems. This was accomplished through the use of a facility survey, location mapping and field work. As described above, the facility survey questionnaire was developed and mailed to all RIDBR licensed auto salvage facilities during the initial stage of program development. The survey was an important tool in helping to gather basic information about well water use, individual on-site septic systems, facility size and management practices.

Mapping facility locations and information—such as percent land and water areas—was accomplished by the NBC through the use of a 2000 data census methodology. This methodology consisted of the following nine steps:

1. Go to www.epa.gov/compliance/environmentaljustice/assessment.html ("Enviromapper" homepage)
2. Click on "Enviro" link in center of page
3. Click the Decimal/Degree format under the Latitute/Longitude section
4. Enter the exact coordinates from the Geocode page
5. Click "Zoom to Chosen Geography" bar at bottom of page
6. Click "Digitize" at bottom of next page
7. Click the "Point" option at the top right of the next page, and then click on the red star on the map. If the coordinates are different, then change them to match the geocode ones.

8. Click the "EJ Assessment" bar, and wait for Census data to load
9. Census data appears for different categories within a default ½ mile radius of the given coordinates. Info is now ready for copying and pasting into an MS Word format.

*Note: For obtaining **topographic maps** from www.geocode.com, enter address and zipcode, and then right click on the resulting image page. Choose the "Save Picture As" option, and download it to a folder on the computer. (This website allows for an initial one hundred free searches, and then requires a subsequent subscription). For obtaining **satellite imagery** from www.terraserver.com, enter the address and zipcode, and when the resulting image appears, it may be *re-sized*. Choose the "Save Picture As" option, and download it to a folder on the computer. (This website is free of charge for certain corporate servers).

The use of Google Earth prior to on-site visits was also a very useful tool in understanding site vehicle density and environmentally sensitive areas. Field work in the form of site visits during the initial phases of the project, including baseline audits, helped RIDEM further define environmental risk attributes of the in-state facilities. Between survey data collected and baseline and post-intervention field audits, nearly all of the RIDBR facilities were characterized in terms of risk attributes that included: distance to nearest water body, public water, public sewer, drinking water well, septic system/leach field, floor drains, UIC discharge, on-site vehicle crushing, licenses and permits, and parts removed. Based on these findings a draft "Best Management Practices for Fluids and Contaminated Soils at Auto Salvage Yard Facilities" soils policy was developed and is included in the Appendix of this report. Data on inactive or high risk facilities identified during this exercise were provided to the Chief of RIDEM's Office of Compliance & Inspection for follow-up. Field inspectors who visited these higher risk facilities devoted more attention to outside storage procedures and any applicable stormwater regulation issues. Most of the larger active facilities were located in urban areas and were addressed through a combined NBC, URI and RIDEM effort. The information and data collected during the course of this grant project will assist RIDEM in future ERP efforts for this sector.

H. In June 2008, after work in identifying active facilities was completed, RIDEM staff updated the auto salvage yard facility information, and provided it to End of Life Vehicle Solutions (ELVS) for use in the ELVS Mercury Switch Recovery Program. As part of this process, some facilities that were not part of the ELVS system were added to receive services, and some inactive facilities were dropped.

6. Key Project Milestones:

The table below shows key project milestones during the project:

Project Completion Date	Task/Milestones
August 1, 2004	Begin project scoping and design
January 3, 2005	Complete preliminary project scoping and design
July 30, 2005	Finalize selection of first phase, governmental Stakeholder Committee members
March 31, 2005	Design survey for auto salvage operators, and mail with return by May 31, 2005
July 31, 2005	Tabulate results from Auto Salvage Operator surveys

January 11, 2006	Held first ½ day workshop for auto salvage yard facility operators and staff (Environmental Compliance and Pollution Prevention)
March 31, 2006	Complete thirty-seven (37) random baseline audits of auto salvage yards with staff from RIDEM, URI, and NBC
June 21, 2006	Complete second ½ day workshop for auto salvage yard and auto body operators and staff (Hazardous Waste)
June 22, 2006	Held first governmental stakeholders meeting
June 30, 2006	Prepare and complete first draft certification workbook
March 6, 2007	Held two stakeholder meetings, for all stakeholders, in this quarter, to review draft documents and program design, and receive comments
January 15, 2007	Complete review and incorporation of comments of governmental staff on the certification workbook and certification checklist package to be used in the certification program
March 31, 2007	Complete review and incorporation of comments by stakeholders on the certification workbook and certification checklist package to be used in the certification program
March 31, 2007	Complete checking and tabulating results of the baseline audits
April 15, 2007	Received completed certification checklists from three (3) auto salvage yard facility operators in "dry run", made minor modifications to documents following it
April 30, 2007	Complete Auto Salvage Yard Facilities Excel database QA/QC
May 15, 2007	Mail Certification Packages to operators
May 15, 2007	Placed Auto Salvage Yard Certification Program webpage on-line on the RIDEM website
June 13, 2007	Complete ½ day workshop for auto salvage yard operators and staff (Stormwater management and program introduction)
September 15, 2007	Completed certification checklists due to be returned by operators
June 30, 2008	Complete twenty (20) random certification follow-up audits, with staff from URI, RIDEM, and NBC
June 30, 2008	Thirty-seven (37) facilities had submitted Compliance Certification Checklists (63 % of licensees with facilities in operation); also, five (5) RIDBR licensees had submitted Facility Non-Applicability Statements
June 30, 2008	In addition to audits, URI staff contacted and conducted on-site visits and audits with sixteen (16) additional facility operators of participating and non-participating operating facilities, and three (3) additional RI DBR licensees were found not operating auto salvage yard facilities
June 30, 2008	RIDEM staff updated facility information, and provided it to End of Life Vehicle Solutions (ELVS) for use in the ELVS Mercury Switch Recovery Program
September 30, 2008	Review of checklists, Return-to-Compliance Reports, related compliance assistance, RIDEM staff and URI
March 31, 2009	Complete Project

7. <u>Project Results, with Outputs and Outcomes</u>:

The following documents were produced as a result of the program, and all can be found in the Appendix of this report:

- Certification Workbook for Auto Salvage Yard Facilities

- Self-Certification Checklist Package for Auto Salvage Yard Facilities
- Auto Salvage Yard Facilities Certification Program Fact Sheet (overview)
- Auto Salvage Yard Facilities Certification Program FAQs
- Design for the Auto Salvage Yard Facilities Certification Program webpage in MS Word
- Agendas for workshops held on January 11, 2006; June 21, 2006; and June 13, 2007
- Stakeholder cover letters and stakeholder meeting agendas
- A personalized Auto Salvage Yard Facilities Certificate of Participation was provided to each program participant that submitted a completed Compliance Certification Checklist to RIDEM

Also, besides the documents produced, additional program outputs included:

- Three one-half day workshops in 2006 and 2007 that were available for facility operators and key staff to attend.
- An Auto Salvage Yard Facilities Certification Program webpage found on the RIDEM website, at http://www.dem.ri.gov/programs/benviron/assist/asy/index.htm. Besides program documents and information, the webpage has a current Certified Facilities List on it.
- Active participation and interaction with the Auto Recyclers Association of Rhode Island, the auto salvage trade association in Rhode Island, including presentations at two (2) association meetings.
- At the end of the project, the universe of auto salvage yard facilities is much better defined than it was in the beginning, making the statistics much more meaningful and being able to more effectively target active facilities in compliance and technical assistance activities. Definition of licensee status was aided by staff contacting (or attempting to contact) all non-participants well after the submission deadline had passed, to determine status and promote participation of licensees with active facilities.

  At the end of June 2008, the breakdown of RIDBR licensees was:

  - Holders of Auto Salvage & Auto Wrecking licenses from RIDBR - 86
  - Actively operated Auto Salvage Yard Facilities - 59
  - Licensees with inactive facilities, out of business, or for sale - 22
  - Licensees without any active facility operations but in related businesses such as vehicle towing, auto sales, and auto repairs - 5

Project Outreach Opportunities Completed:

The following outreach opportunities were carried out during the project period, to promote or educate others about the Auto Salvage Environmental Results Program, or to participate with others to interact and exchange information on ERP principles or activities:

- Participated in conference calls as part of NEWMOA's Junkyard work group. (T. Armstrong)

- Attended and made a presentation at a Auto Recyclers Association of Rhode Island (ARARI) meeting held on September 23, 2004 (R. Enander & G. Park)
- Participated and made presentation at California EPA ERP Workshop, hosted by CAL EPA and EPA HQ in Sacramento, CA on September 30, 2004 (R. Enander)
- Attended "Auto Recyclers Trade Show & Environmental Conference", in Manchester, NH on November 20, 2004 (T. Armstrong)
- Attended an Environmental Results Program (ERP) Workshop, hosted by Maine DEP in conjunction w/EPA in Portland, ME, on December 9-10, 2004 (T. Armstrong)
- Participated in and made a presentation about ERP and RIDEM's ERP programs at the Rhode Island Society of Environmental Professionals Annual Meeting, on March 9, 2005, with 50 attendees (R. Enander and T. Armstrong)
- Attended an Auto Recyclers Association of Rhode Island meeting on October 24, 2007, made presentation on RIDEM's Auto Salvage Yard Facilities Certification Program and answered questions from attendees (T. Armstrong)
- Presentation of Rhode Island's Auto Salvage Yard Facilities Certification Program in a web conference sponsored by the Northeast Waste Management Officials Association (NEWMOA) in May 2008 (T. Armstrong)

Results of Workshops Presented to Auto Salvage Yard Facility Operators and Staff:

These workshops were sponsored by RIDEM, URI, and NBC:

- The three (3) workshops provided to auto salvage yard facility operators and staff prior to certification were considered to be highly beneficial in informing and better educating facility operators and staff on key components prior to completing and submitting their Compliance Certification Checklists, and correcting some deficiencies.

January 11, 2006 - Environmental Compliance & Pollution Prevention

- Fifty (50) auto salvage yards owners and employees in attendance
- Thirty-two (32) auto salvage yards were represented
- Five (5) vendors present

June 21, 2006 - Hazardous Waste (offered to both auto salvage yard and auto body facility operators)

- Thirty-seven (37) auto salvage yards owners and employees in attendance
- Twenty-three (23) auto salvage yards were represented
- Two (2) environmental consultants and the Chief of Auto Body and Auto Wrecking & Salvage Operations from the RI Department of Business Regulation in attendance
- In addition, thirty-eight (38) persons representing thirty-two (32) auto body facilities were present

June 13, 2007 - Stormwater Management, Program Introduction

- Forty-four (44) persons from auto salvage yard facilities in attendance
- Twenty-six (26) auto salvage yards were represented
- Certification documents were available at this workshop

Major project outcomes:

Participation in the program is voluntary. Of the fifty-nine (59) active facilities in the State, thirty-six (36) actively operating facilities are participating in the program, providing a 63 % participation rate by active facilities. An additional facility submitted a completed checklist, but is now inactive. The active participation and involvement of the Auto Recyclers Association of Rhode Island in the development and in promoting the program with its membership influenced the high voluntary participation rate.

An Excel spreadsheet is provided in the Appendix, showing compliance performance for each performance indicator at baseline and post-certification. Some of the highlights:

- Facility audits and visits found that extensive re-use and recycling of fluids and other materials, such as gasoline, used oil, and used batteries is taking place at all facilities that certified, virtually eliminating the need for their management and disposal as hazardous waste both before and after the certification program was implemented.
- Auto Mercury-Containing Switches: Prior to project implementation, very few facilities were removing and recycling auto mercury convenience switches as required under Rhode Island statute and regulations. After program implementation, compliance improved markedly, with a 61 % increase in removal of hood and trunk convenience switches, and a 60 % increase in switches being sent for recycling
- Lead Acid Batteries: Substantial improvements were made both in storing vehicle batteries safely (29 % increase) and in inspecting batteries for leaks on a weekly basis (39 % increase)
- Used Oil: There was a 37 % increase in facilities properly labeling used oil containers. Although it did not affect development and implementation of the program, it should be noted that waste oil is now defined “used oil” in Rule 15.00, Used Oil Management Standards, in the Rhode Island DEM Rules & Regulations for Hazardous Waste Management adopted in March 2007, and used oil generators should be aware of the new rule.
- Stormwater Management: Improvements were made in helping operators to better understand stormwater management, with an 18% improvement in stormwater permit applications, and a 23 % increase in facilities following a written stormwater plan
- Hazardous Waste: There was 36 % increase in facility operators submitting a current list of agents authorized to sign a Uniform Hazardous Waste Manifest to RIDEM. For operators that have EPA Identification Numbers, and may have to manage a waste as a hazardous waste should the need occur, with contaminated fuel for example, it is important that the operator have a current list of agents authorized to sign a Uniform Hazardous Waste Manifest on file with RIDEM.

8. Final Materials Generated:

A number of documents were written and used as part of the program, including a Certification Workbook for Auto Salvage Yard Facilities, Self-Certification Checklist Package for Auto Salvage Yard Facilities program fact sheets, agendas for the three (3) workshops that were held prior to the implementation of certification, and articles and press releases that promoted the program.

These documents are all found in the Appendix of this report. In addition, the webpage was launched on the RIDEM website in the spring of 2007 at http://www.dem.ri.gov/programs/benviron/assist/asy/index.htm and will continue to be found on the RIDEM website and updated as needed, as a resource for the certification program and to provide ongoing information to facility operators.

9. Dissemination of Project Information:

It is the intention of the Rhode Island Department of Environmental Management to continue this program in the future, with re-certification every three (3) years. In the out-years, requests by facility operators for compliance or technical assistance or to begin participation in the program will be handled by RIDEM, with assistance from URI. Methods that have been used in program implementation, and will continue to be used for dissemination of information include:

- The Auto Salvage Yard Facilities Certification Program webpage
- Continued participation and interaction with the Auto Recyclers Association of RI
- Presentation of workshops for facility operators and staff as appropriate
- Participation in venues such as the Northeast Waste Management Officials Association (NEWMOA) through meetings, web conferences, and newsletters
- Continued collaboration with the partners of this project (University of Rhode Island, Center for Pollution Prevention & Environmental Health, Narragansett Bay Commission., U. S. Environmental Protection Agency), as well as the States ERP Consortium, in seeking to continue to improve environmental compliance and implementation of best management practices in the auto salvage industry in Rhode Island

10. Project Results and Analysis:

Environmental Business Practices Indicators for the project:

Refrigerant Recovery	Technicians EPA certified
	EPA approved recovery equipment
Lead Acid Batteries	Store batteries safely
	Inspect batteries for leaks
Mercury Switches	Remove convenience switches from hood/trunk
	Switches sent to recycler
	Remove antilock brake switches

Waste Tires	Store more than 400 tires, with license
	Tire piles (greater than 400 tires) covered
Waste Oil	Containers labeled "Waste oil" ("Used Oil" after 2007)
Wastewater Discharge	Process water does not impact Ground Water
Stormwater	Stormwater permit application
	Follow a written stormwater plan
Hazardous Waste	Submitted list of authorized agents to sign manifests

ERP uses industry-specific Environmental Business Practice Indicators (EBPIs) linked to selected regulatory requirements and pollution prevention to track performance.

A total of thirty-seven (37) completed Compliance Certification Checklists were submitted by facility operators, or 63 % of active facilities in the state. It should be noted that many checklist questions are related to best management practices rather than regulatory requirements. These questions did not have a Return-to-Compliance Plan submittal check box and requirement. Of the 125 major checklist questions (some with multiple parts), 53 major questions pertained to regulatory requirements, making it necessary to submit an RTC Plan to address deficiencies.

Although not regulatory requirements, the remaining checklist questions relating to best management practices were also considered to be extremely important, in reviewing and improving overall facility environmental performance and reducing human health and safety risks. Some of these questions relate to pollution prevention opportunities, safety issues, and potential cost savings for the facility.

- With the checklists submitted , eighteen (18) Return-to-Compliance Plans were submitted by thirteen (13) facility operators.
- 66 % of the returned RTCs (12) were related to stormwater permits and stormwater related issues, followed by 16 % (3) being related to technicians being EPA certified for refrigerant recovery
- Removal and recycling of auto mercury-containing switches markedly improved during the project period, and was considered one of the greatest successes of the program. Although removal and recycling of auto mercury convenience switches is required by the Rhode Island Mercury and Education Act, prior to the program's introduction to facility operators and it's implementation, very few auto mercury switches were being removed and recycled by facilities through the End of Life Vehicle Solutions Corporation (ELVS) program. During the project period, fifty (50) percent of certified facilities returned auto mercury switches to ELVS. ELVS was created by the automotive industry to promote the industry's environmental efforts in recyclability, education and outreach, and the proper management of substances of concern, such as auto mercury-containing switches.
- Facility operators were strongly encouraged by the Auto Recyclers Association of Rhode Island to remove vehicle mercury-containing switches and return them to the ELVS recycling contractor on a regular basis.

- In 2007, 10,713 auto mercury-containing switches, yielding 23.57 pounds of recovered mercury, were delivered to the ELVS recycling contractor.
- Facility operators were strongly encouraged by the Auto Recyclers Association of Rhode Island to remove vehicle mercury switches and return them to the ELVS recycling contractor on a regular basis.
    - In 2007, 10,713 auto mercury-containing switches, yielding 23.57 pounds of recovered mercury, were delivered to the ELVS recycling contractor.
    - From January 1 through June 30, 2008, 3,428 auto mercury-containing switches containing mercury were delivered to the ELVS recycling contractor, which yielded 7.54 pounds of recovered mercury.
    - The improved compliance with Rhode Island's Mercury & Education Act, through the Auto Salvage ERP, resulted in the removal of over thirty (30) pounds of mercury from the waste stream in this two year time period. It prevented this mercury from being landfilled, incinerated, or improperly disposed.
- Although not required to participate in the program, some facility operators chose to hire a consultant with expertise in stormwater issues to assist them with compliance on that issue.

What worked well with program implementation:

- In the view of the Project Manager and other RIDEM senior staff, the goals and objectives for the project were very well met. With very limited regulatory efforts, compliance or technical assistance in the past, and thus limited positive environmental results in Rhode Island's auto salvage yard sector, RIDEM felt that creation of a sustainable, multi-media, comprehensive program available to all auto salvage yard facilities throughout the entire state was very badly needed. The program met this goal extremely well, with 63 % of active auto salvage yard facilities participating in the program, representing eighteen (18) out of a potential twenty-six (26) communities, or 69 % of municipalities.
- The success of this voluntary program was probably aided by the fact that the RIDEM Office of Technical & Customer Assistance (OTCA) was the lead for the project, and this office is primarily non-regulatory with a role in providing regulatory compliance assistance and pollution prevention technical assistance to businesses as part of its normal activities. Facility operators appeared to be very comfortable in communicating and working with RIDEM OTCA project staff, as well as other staff provided by project partners, in terms of interest, asking questions, and providing information. Feedback and reception to staff by the Auto Recycling Association of Rhode Island members at meetings attended was very positive, with active interaction and pertinent questions being asked by members.
- The active involvement and input of governmental staff from RIDEM, NBC, and EPA, as well as URI and industry stakeholders, was critical to the success of the project, and the interaction of staff worked very well. The expertise and involvement of staff from the Narragansett Bay Commission and the RIDEM Office of Water

Resources on water issues was especially important in the stormwater management area.

- Having a State requirement that facilities be licensed by the RIDBR was very helpful, in providing a list of licensees to be used in defining the universe. However, it became very clear that was not enough and that even with the list, staff leg work and follow-up was still needed, to actually identify the active auto salvage yard facilities, and other license holders not actively involved in the business.
- Principles and methodologies used in this project will be employed by RIDEM in other current Environmental Results Programs, such as Auto Body Repair, Underground Storage Tank, and MS4, and any future ERP programs that are pursued.
- It is the intention of RIDEM to continue the program, with re-certification every three (3) years rather than two (2) years as initially proposed, and it will accommodate requests in the program's out-years by facility operators desiring to begin participation and/or receive compliance or technical assistance.

Other Observations:

- Offering workshops to both operators and key staff before program implementation was very valuable. It allowed workshops attendees to better understand issues involving stormwater management, complying with environmental regulations, and pollution prevention before performing the self-audit and completing the compliance certification checklist.
- RIDEM's Auto Salvage Yard Certification Program webpage has been an important asset to the program, available to facility operators and other interested individuals on any day or at any time. It includes documents pertaining to the program as well as being an educational resource. RIDEM has used webpages for other ERP programs as well, such as Auto Body Repair, Underground Storage Tanks, and Exterior Lead Paint Removal.
- Because of the large number of pages in certification documents, and the large amount of printing that would be required to download and print, RIDEM mailed certification document packages to facility operators prior to implementation. However, they are available on the webpage for those who wish to view them, or perhaps print just a portion of them.
- Having telephone numbers and email addresses for all RIDEM staff members available on the RIDEM website is a major benefit to those wishing to easily contact someone, get more program information, or ask questions, either by telephone or email.

Challenges and Barriers:

As addressed earlier in this report, the lack of a multi-media enforcement component in RIDEM has posed difficulties in addressing enforcement and compliance concerns. The Auto Salvage ERP was considered a reasonable way to deal with this issue, as well as improve environmental management practices and performance at Rhode Island's auto salvage yards.

The greatest challenge to successfully developing and implementing a program such as the Auto Salvage ERP was carrying this out with very limited staff available in RIDEM's Office of Technical & Customer Assistance. This challenge was greatly minimized by active partnerships from the start with URI and NBC, and utilizing staff and expertise from those entities.

RIDEM strongly recommends:

- Other State agencies pursuing a project with auto salvage yards or other sectors should become engaged with local trade associations very early in the process, and remain actively engaged throughout. Trade associations are very instrumental in developing trust in the industry and promoting such a project with their members in a positive manner.
- If feasible, State agencies should pursue partnerships with other related organizations, such as RIDEM did with the URI Center for Pollution Prevention & Environmental Health and the Narragansett Bay Commission to further the goals of its project and maximize expertise available.
- Training sessions should be scheduled at times of day convenient for operators and their staff to maximize participation. In our case, feedback showed that morning sessions were most convenient, in allowing key staff as well as operators to attend.
- Interactive, targeted one-half day training sessions were more appropriate than sessions with a longer time frame, in order for operators to set time aside from their businesses, and thus maximize the participation by operators and by key staff.

11. Rhode Island Statutes Relevant to the Auto Salvage Industry

The following Rhode Island Statutes are relevant to the Auto Salvage Industry in the State of Rhode Island; this list is not all-inclusive of all statutes relating to the industry:

Title 42, Chapter 42-14.2 of Rhode Island General Laws
http://www.rilin.state.ri.us/Statutes/TITLE42/42-14.2/INDEX.HTM
Department of Business Regulation - Automobile Wrecking and Salvage Yards

Title 5, Chapter 5-21 of Rhode Island General Laws
http://www.rilin.state.ri.us/Statutes/TITLE5/5-21/INDEX.HTM
Second Hand Dealers (Local licensing related to auto salvage yards)

Title 23, Chapter 23-24.9 of Rhode Island General Laws

http://www.rilin.state.ri.us/Statutes/TITLE23/23-24.9/INDEX.HTM
Mercury Reduction and Education Act

The following regulations are relevant to the Auto Salvage Industry in the State of Rhode Island; this is not all-inclusive of all regulations relating to the industry. Regulations relative to specific areas of concern covered in the program can be found on the RIDEM website:

Rhode Island Department of Business Regulation
Commercial Licensing Regulation 6 - Auto Wrecking and Salvage Yards
http://www.dbr.ri.gov/divisions/commlicensing/autowrecking.php

12. Financial Report and Information:

A Financial Report for the project is included in the Appendix of this report. As the report details, funding was used for RIDEM staff salary and fringe benefits, travel by RIDEM staff, and for contractual services provided by the University of Rhode Island, Center for Pollution Prevention & Environmental Health.

As outlined in the report, an adjustment was made by re-allocating a portion of the funding specified for travel, to RIDEM staff salaries and fringe benefits.

NOTE: For general reference, it should be noted that the name of RIDEM's Office of Technical & Customer Assistance was changed to the Office of Customer & Technical Assistance in May 2009.

Appendix Attachments:

Financial Report - Auto Salvage Environmental Results Program
Facility Questionnaire (2005)
Certification Workbook for Auto Salvage Yard Facilities
Self-Certification Checklist Package for Auto Salvage Yard Facilities
Auto Salvage Yard Facilities Certification Program Fact Sheet (overview)
Auto Salvage Yard Facilities Certification Program FAQs
Design of Auto Salvage Yard Facilities Certification Program webpage
Auto Salvage Workshop Agenda - January 11, 2006
Auto Salvage & Auto Body Hazardous Waste Workshop Agenda - June 21, 2006
Stormwater & Auto Salvage ERP Introductory Workshop Agenda - June 13, 2007
Sample Auto Salvage Yard Facilities Certificate of Participation
Stakeholder cover letter dated 1-4-07
Stakeholder cover letter dated 2-22-07
Meeting Agenda 6-22-06
Meeting Agenda 11-9-06
Photograph of grant award presentation, December 2004, Portland, Maine
EPA Environmental News Release # SR04-12-05, 12-09-04
RIDEM News Release, 12-09-04RIDEM News Release, 5-24-07
"Providence Business News" article, 5-25-07
"Providence Business News" article, 6-04-07
"Recycling Today" article, 5-29-07
Spreadsheet with Baseline and Post-Certification Compliance Performance (Excel)
Baseline and Post-Certification Compliance Performance Data (Excel)
List of Certified Auto Salvage Yard Facilities
Draft Best Management Practices for Fluids and Contaminated Soils
at Auto Salvage Yard Facilities