## SUMMARY INFORMATION

**Project Title:** Sustainable Energy Management Practices for Wastewater Treatment Facilities

**Location:** State of Rhode Island

**Applicant:** Narragansett Bay Commission (NBC) - Lead Agency
RI Department of Environmental Management (RIDEM) - Project Partner
University of Rhode Island Center for Pollution and Environmental Health (URI) - Project Partner

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**Total Project Cost:** $370,000 ($275,000 EPA and $95,000 State and NBC matching funds)

**Project Period:** October 1, 2008 to September 30, 2011

**Project Abstract:** Municipal Wastewater Treatment Facilities (WWTF), throughout the United States play an important role in protecting human health and the environment. These WWTFs are large energy users, and while designed and operated to reduce the environmental impacts of municipal wastewater (BOD, nutrients, solids) on local receiving waters, they can and do create other impacts through the large consumption of fossil fuels (e.g., greenhouse gas emissions) and from the biological degradation of organics in wastewater. In the State of Rhode Island, municipal wastewater is handled by 19 individual WWTFs that are capable of receiving and treating up to 200 million gallons wastewater per day, and in the process, they consume more than 78,000 MWH of electricity annually at a cost of more than $9 million. The Narragansett Bay Commission, in partnership with the Rhode Island Department of Environmental Management and the University of Rhode Island, will develop and implement a Sustainable Energy Management Program, based on well established EMS "Plan-Do-Check" procedures, for use by all Rhode Island WWTFs. As part of this effort, the project partners will develop and implement an ERP designed to manage and utilize waste grease, generated by restaurants and food processing operations, as a renewable fuel. NBC anticipates that this project will improve the energy efficiency of participating WWTFs by a minimum of 5 to 10 %, and by utilizing renewable energy opportunities decrease energy demand from the local power grid as much as 10 to 20%.

**Federal Funding:** This project is not being executed in cooperation with or funded by another Federal Program

**Regulatory Flexibility:** Federal regulatory flexibility to implement this project is not required at this time

**Certification of State Agency Support:** The RIDEM's Director, W. Michael Sullivan, Ph.D. and NBC's Executive Director Raymond Marshall, P.E. endorse this project

# PROJECT NARRATIVE

## A. Problem (Issue) Statement

The U.S. has an estimated 16,225 operating Wastewater Treat Facilities (WWTF).[1] Combined, these facilities service 73% of the 1996 U.S. population (190 million people) and treat more than 40 billion gallons of wastewater on a daily basis. These WWTFs are large energy users, and while designed and operated to reduce the environmental impacts of municipal wastewater (BOD, nutrients, solids) on local receiving waters, they can and do create other impacts through the large consumption of fossil fuels (e.g., greenhouse gas emissions) and from the biological degradation of organics in wastewater. With large, energy demanding equipment such as pumps, motors, and blowers operating 24 hours/day 365 days/year, wastewater treatment operations are often the most energy intensive service provided for within a community or municipality. Because many of today's WWTFs were designed and constructed at a time when energy consumption was not of primary concern, tremendous opportunities now exist for WWTFs to improve upon existing energy management practices and procedures. Also, while seemingly unrelated to WWTF energy issues, an on-going problem common to almost all WWTFs is the impact of waste grease from the food preparation industry on the overall wastewater treatment process. Recent efforts by the City of Millbrae California[2] have demonstrated that waste grease can be successfully diverted away from wastewater treatment operations and used as an energy source in the production of bio-diesel fuel and methane rich bio-gas with an anaerobic digester.

In the State of Rhode Island, municipal wastewater is handled by 19 individual WWTFs that are capable of receiving and treating up to 200 million gallons per day (MGD) of municipal wastewater. Based on standardized energy consumption data and assumed peak energy efficiency performance[3], these facilities combined consume more than 78,000 MWH of electricity annually at a cost of more than $9 million. The purpose of this proposed project is to help Rhode Island WWTFs meet or exceed their peak energy efficiency potential while improving wastewater treatment operations and the quality of treated effluent through the use of 1) sustainable energy management practices that take full advantage of available renewable energy opportunities including wind power and the use of waste grease as an alternative energy source, and 2) a combined EMS model "Plan-Do-Check-Act" and Environmental Results Program (ERP) approach.

## B. Background

The Narragansett Bay Commission (NBC) owns and operates Rhode Island's two largest wastewater treatment facilities (WWTF) that purify sewage from 10 Rhode Island cities and towns, providing quality sewerage service to approximately 40% of the state's population and serving approximately 360,000 people and 8,000 businesses. NBC's Fields Point (FP) WWTF services Providence, North Providence, Johnston and a small portion of Cranston, while the Bucklin Point (BP) WWTF services Pawtucket, Central Falls, Lincoln, Cumberland and a small portion of Smithfield and East Providence. NBC's award winning[4] operations are integral to the State of Rhode Island's economic growth and sustainability.

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[1] USEPA, Clean Watersheds Needs Survey 2000, Report to Congress, EPA-841-R-03-001, 2003. (www.epa.gov/owm/mtb/cwns/)

[2] http://www.nacwa.org/images/stories/public/07pret/2007pret-k.bell.pdf

[3] Water Environment Federation, WEF Manual of Practice No. FD-2

[4] Examples of awards (http://www.narrabay.com/awards.asp) include: 2007 Both the Field's Point and Bucklin Point facilities achieve Silver Awards for excellent effluent quality from the National Association of Clean Water Agencies; 2007 Narragansett Bay Commission wins NEWEA Wastewater Utility Management Award, honoring outstanding performance of a wastewater division in New England; 1998 Narragansett Bay Commission Pretreatment Program receives US EPA's National Pretreatment Excellence Award in the Large Significant Industrial Users category. This award honors those organizations that are demonstrating their commitment to the protection and improvement of the nation's waters through their operation and exemplary pretreatment programs; 2004 Narragansett Bay Commission wins Excellence in Management Award from the Association of Metropolitan

NBC's ten largest customers consist of health care facilities, educational institutions and government agencies that provide services to the entire state. Furthermore, NBC's primary goal to protect and enhance the water quality in Narragansett Bay directly helps to support and sustain an annual $4.7 billion dollar statewide tourisms trade. NBC has delegated authority to issue Pretreatment Discharge Permits under the Federal Clean Water Act.

NBC's Field's Point WWTF located in Providence is the largest WWTF in the State of Rhode Island and the second largest in New England. The Fields Point WWTF has an average electrical power demand of 2.05 Megawatts of electricity. NBC's Bucklin Point WWTF, the second largest WWTF in Rhode Island, has an average electrical power demand of 1.1 Megawatts. NBC is thus one of the top users of electricity in the State of Rhode Island. NBC is a nonprofit public corporation with an operating budget funded on revenues collected through sewer user fees. Because of its nonprofit status, any operating cost increases and/or decreases are passed on to the sewer users.

In response to high energy costs and the recent availability of various economic incentives, NBC has incorporated numerous energy conservation measures and, in fact, is currently operating at only 1- 2 % above what is considered the industry peak energy performance[5] level of 1,093 KWH of electricity per million gallons of wastewater treated at the NBC Field's Point WWTF. Additionally, NBC has recently embarked on a study to determine the technical and economic feasibility of generating distributed electricity, utilizing sources of renewable energy that are generally available to most wastewater treatment facilities. The objectives of this on-going study are to:

1. Identify sources of renewable energy available to wastewater treatment facilities that have the greatest potential for practical use,
2. Conduct detailed investigations into the technical and economic feasibility of utilizing these renewable energy sources, and
3. Identify available economic incentives to implement the identified renewable energy project(s).

As a result of this study, NBC is planning two renewable energy projects: use of wind energy at the NBC Field's Point WWTF and use of renewable bio-gas within a Combined Heat and Power (CHP) System to generate both electricity and useful heat a the NBC Bucklin Point WWTF. Combined, these two projects will be able to supply much as 35% to 40 % of NBC's overall energy needs from renewable energy sources. This proposed State Innovation Grant Project is designed to take full advantage of NBC's experiences and expertise with respect to efficient WWTF energy management and apply those experiences initially to a wider community of WWTFs within the State of Rhode Island and eventually to WWTFs on a regional and national level.

Program Guidelines, Eligibility Requirements and Selection Criteria

The proposed Sustainable Energy Management Practices for WWTFs component of this project uses the "Plan-Do-Check" approach of an Environmental Management System and meets the following State Innovations Grant Application Criteria:

**Threshold Criteria**

*Threshold Criterion 1* – The proposed project activities are in alignment with the authority of both the Clean Air Act by minimizing air pollutants associated energy generation and consumption, and the Clean

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Sewerage Agencies; 1998 Narragansett Bay Commission's Bucklin Point facility recognized by the Rhode Island Department of Environmental Management for outstanding performance in operations and maintenance; 1995 The Field's Point facility is selected the Best Operated and Maintained large secondary wastewater treatment facility in the country by the US Environmental Protection Agency and winner of its National Excellence Award. US EPA Administrator Carol Browner and US EPA Region I Administrator John DeVillars is shown at Field's Point with the national excellence award.

[5] "Energy Conservation in Wastewater Treatment Facilities", Water and Environment Federation, WEF Manual of Practices No. FD-2 , WEF 1997

Water Act (CWA) by focusing energy management efforts on WWTF operations that are permitted under the CWA The proposed project activities involve the collection and dissemination of information and training activities involving efficient energy management practices using 1) commonly employed Plan-Do-Check mechanisms typically reserved and utilized in an environmental model, and 2) the ERP approach for industry sector compliance initiatives. While both the EMS and ERP models have proven to be effective in addressing environmental issues, this project uses a new approach by applying these highly successful methods to establish and implement organized Energy Management System among WWTFs on a statewide basis.

*Threshold Criterion 2* - This project meets the following elements of EPA's Strategic Plan:

Goal 1: Clean Air and Global Climate Change – The proposed project seeks to reduce the energy demand of participating WTTFs through more efficient energy use and the use of renewable energy sources resulting in the generation of less Greenhouse Gases while accomplishing the same or better level of wastewater treatment.

Goal 2: Clean and Safe Water – The proposed project focuses on WWTF facility operations that by design convert wastewater into clean safe water for discharge to the environment and, in some cases, for reuse.

Goal 4: Healthy Community and Ecosystems – The proposed project outcomes include cleaner air and clean water resulting in healthier communities and healthier ecosystems.

Goal 5: Compliance and Environmental Stewardship – The proposed project avoids the generation of air pollution through the use of efficient energy practices and procedures.

*Threshold Criterion 3* – The project proposal complies with all requirements set forth in Section IV A, B, and D of the State Innovation Grant Request for Proposal FY2008 Announcement.

**Eligibility**
The NBC meets the State Innovation Grant Program eligibility criteria of being a municipal agency with delegated authority for federal environmental permitting through its authority to issue or deny wastewater discharge permits "as required by applicable federal and state law" under Rhode Island General Laws Title 46 Chapter 25 Section 25 and in accordance with NBC's two Rhode Island Pollution Elimination Discharge (RIPDES) permits RI100315 – Field's Point and RI0100072 – Bucklin Point.

## C., D. Project Objectives and Methodology

NBC, in partnership with the RIDEM and URI, is proposing a project that will quantify the energy demand of Rhode Island WWTFs; identify conservation opportunities—including energy efficient operational practices and the potential use of available renewable energy sources; and implement an ERP to improve oil/grease discharge compliance and to encourage the use of collected grease as a renewable energy source. Planned project objectives include:

*Project Objective 1* – Establish an Energy Demand Baseline for Participating WWTFs.
In order to measure the effectiveness of energy management activities associated with this project, an energy demand baseline will need to be established for each participating WWTF. Tasks associated with meeting this objective include:

1. *Collect and tabulate energy use data* from all Rhode Island WWTFs willing to participate in this project. Most of this information is of public record but, depending on how each individual facility maintains energy use data, may be time consuming to collect. Tasks will include meeting with facility representatives, obtaining electricity, natural gas and fuel oil bills for the most recent 36 month period and creating a database to manage all collected data. It is estimated that 3-6 months are needed to complete this task (completed by end of 3rd quarter of 1st year).

2. *Collect information on operational processes* (activated sludge, trickling filter, wastewater conveyance, sludge management techniques, etc.) including the quantity of wastewater treated, and the particular treatment standards achieved (BOD removal, TSS removal, nutrient removal) for each participating WTTF for the time period corresponding to the collected energy use data. Tasks will include but may not be limited to developing a general site assessment checklist applicable to all wastewater treatment operations, conducting on-site assessments of each participating WWTF, and tabulating collected data for use in conjunction with energy consumption data. It is estimated that 12-18 months are needed to complete this task (completed by end of 3rd quarter of 2nd year).
3. *Develop an energy use baseline for each participating WWTF* through the compilation and analysis of collected data. Final energy use baseline data will be used to measure and quantify energy use improvements achieved though the use of identified and implemented Energy Conservation Measures (see Objective 2) using an EMS approach. All applicable information will be entered into EPA's Energy Star Program for POTWs. It is estimated that 12-18 months are needed to complete this task (completed by end of 1st quarter of 3rd year).

*Project Objective 2* – Identify and Quantify WWTF Conservation Measures.
WWTF Energy Conservation Measures (ECMs) are operational and/or maintenance practices that may lead to more efficient use of energy. Tasks associated with achieving this objective will include for each participating WWTF: developing a list of all major energy-consuming pieces of equipment, quantity of power draw and efficiency of each identified piece of equipment; define existing process control procedures; and review procedures used by the applicable power company to bill for energy consumption. Many of the tasks associated with this objective may be accomplished concurrently with the assessments conducted as part of Objective 1 while others may be completed by properly trained WWTF staff. Time for completion is 12 months (completed by end of 1st quarter of 2nd year).

*Project Objective 3* – Identify and Assess Renewable Energy Opportunities.
Due to technology improvements, increased energy costs, and recently implemented renewable energy economic incentives, the use of renewable energy sources has become more desirable and economically achievable. Completion of this project objective will allow participating WWTFs to make informed decisions on the environmental and economic benefits of investing in the use of available sources of renewable energy. Tasks associated with this objective include conducting site specific assessments on the potential use of wind energy, solar energy, bio-fuels and hydro-electric energy at each participating WWTF and the development of site specific reports on technological and economic issues concerns with respect to each of the renewable energy sources. It is estimated that tasks associated with this objective should take between 18 to 24 months to complete (completed by end of 2nd quarter of 3rd year).

*Project Objective 4* – Develop ERP for Restaurants and Oil and Grease Discharges.
Spent grease that enters the sewer system from food preparation processes is a continuing problem for WWTF operations. Grease can cause sewer line obstructions, cause problems with pumps and other WWTF equipment and can inhibit overall wastewater treatment effectiveness. NBC like other WWTFs requires that the wastewater entering the sewer pipes must contain oil and grease at levels below 100 mg/l. The most effective means of ensuring compliant discharge is the proper use of grease traps. Collected grease not only assures environmental compliance but also provides a viable source of renewable energy that can be potentially used in anaerobic digesters found at certain WWTFs. This objective will help to identify ways of using spent grease as an alternative renewable energy source (see Project Objective 3). Tasks associated with achieving this objective include: 1) developing and implementing an ERP associated with grease collection and management at food processing facilities in Rhode Island, and 2) identify opportunities and problems associated with using spent grease as a precursor to the production of bio-diesel and use in anaerobic digestion operations thus generating useful bio-gas fuel.

The goals of the proposed ERP will include improving compliance through education, self-certification, and on site technical assistance. Statistical analysis will be employed to confirm compliance improvement results. The following is a list of tasks associated with meeting this project objective:

1. *Steering committee*. A steering committee will be formed that includes representatives from NBC, DEM, URI and restaurant/hospitality organizations. The committee will meet several times throughout the project to review work completed, share recommendations, and discuss next steps.
2. *Identify industry sector universe*. URI and NBC will determine the total number of restaurants within the NBC regulatory region. The primary database to be used will be from the RI Department of Health's (DOH) Office of Food Protection Inspection (http://food.ri.digitalhealthdepartment.com/). DOH recently opened up a web site that provides the general public access to individual health inspection reports. Any establishment, both profit and non-profit, that serves food to customers is part of the database since a license is required from DOH. While the total database contains over 8,000 organizations for the entire state of RI, the proposed project will focus within NBC's district. Since NBC regulates most of the high density populated cities and towns, it is expected that at least half of the total database will be determined to fall within NBC's region. Zip codes will be used as filters to sort the state-wide database (completed in 1st quarter of 1st year).
3. *Develop checklist and manual.* A checklist that can be used for self-certification will be created. The areas of concern will include proper use of grease traps, application of pollution prevention practices (e.g., oil/grease separation before washing), and maintenance of drainage pipes. An accompanying manual that describes the individual checklist questions, pertinent environmental regulations and pollution prevention methodologies will also be developed (completed by 3rd quarter of 1st year).
4. *Perform trial checklist runs.* Project personnel will select 2-3 locations to try out the checklist. Results and feedback from these trial runs will be used to modify the checklist accordingly prior to finalization (completed by end of 1st year).
5. *Baseline data collection.* URI and NBC will perform a number of baseline audits to gather enough data to perform a baseline analysis of the industry before implementation of ERP. The ERP Sample Planner will be used to determine the sample size or how many site visits are required. The sites will be randomly selected using a random number generator. Different factors that contribute to the calculation of the sample size include expected compliance rates and confidence intervals (completed by end of 1st year).
6. *Kick-off workshop.* A workshop will be planned to announce the new ERP initiative. Announcements will be made through restaurant and hospitality networks. Individual mailings will be considered but may be contingent on the number of mailings required since a relatively high number of potential businesses (up to several thousand) may need to be accounted for. Nevertheless, the checklist and manual will be sent out to all eligible entities (see number 7) (to take place in the first quarter of the 2nd year).
7. *Checklist/manual distribution.* After the workshop, the checklist and manual will be sent to all relevant business organizations. Each facility will have 6 months to perform the self-certification and return the completed forms to NBC. It is expected that a certain number of non-applicability statements (operations that do not use any oil or generate grease) will be returned as well as a number of return-to-compliance (RTC) forms (sent out after workshop).
8. *Post ERP inspections.* As determined by the ERP Sample Planner, a pre-determined number of facilities will be randomly selected for post-certification on site inspections. Data will be used for the first round ERP analysis (completed by end of 1st quarter of the 3rd year).
9. *Statistical analysis.* URI and DEM will take all data gathered from the baseline and post-certification audits to perform a detailed statistical analysis. Degree of improvements in compliance and best

management practices will be calculated using both Fisher and Bonferonni methods (completed by end of 3rd quarter of the 3rd year).

*Project Objective 5* – Establish and Implement Organized Energy Management Systems Utilizing a Plan-Do-Check Approach.

Establish and implement a successful Plan-Do-Check process for implementing sustainable energy management programs for participating WWTFs. Tasks associated with achieving this objective include: 1) developing a training program for WWTFs on the use of an Environmental Management System Plan-Do-Check process for evaluating and implementing a Sustainable Energy Management Program, 2) conducting training sessions for participating WWTFs, and 3) working with each participating WWTF to implement the Energy Management Plan-Do-Check process. It is estimated that tasks associated with this objective should take between 12 to 18 months to complete (completed by end of 2nd year).

Project Partners

The Rhode Island Department of Environmental Management – The Rhode Island DEM has been actively involved in various EPA initiatives over the past two decades including implementation of successful pollution prevention programs and projects and, more recently, the establishment of ERP's for various industry sectors (see Table at end of document).

The University of Rhode Island – With support from various government sources, the URI Center for Pollution Prevention and Environmental Health has developed a successful track record of helping hundreds of RI businesses reduce waste and save money. In the past, URI has teamed up with the NBC and DEM to carry out specific initiatives including pollution prevention and ERP. URI offers a unique, interdisciplinary resource that, coupled with the above-mentioned government partnerships, provides practical solutions for industry to better manage waste and to improve compliance.

## E. Outcomes and Measures

Even the most energy efficient WWTF will benefit from the use of a Sustainable Energy Management Plan. NBC was able to realize an 11% increase in energy efficiency by installing higher efficiency equipment as part of a recent upgrade to the Bucklin Point WWTF. Payback periods associated with these improvements ranged from 1.5 to 7.5 years. If it is assumed that the older WWTFs participating in this project take advantage of only the less expensive energy conservation options, a 5% overall reduction in energy use should be readily achievable. If a 50% participation rate by all Rhode Island WWTFs is achieved, an average annual energy reduction of 1,037 MWh/year in electrical demand is possible.

Burning of fossil fuels results in air pollution emissions including greenhouse gases: $CO_2$, NOx and water vapor. Though the mix of fuels used to generate electrical power varies by region, based on the average New England power industry's fuel mix[6], every 1 MWH of electrical demand taken off the New England grid will result in a reduction of about 303 lbs of $CO_2$ emissions. Thus a 1,037 MWh/year reduction in electrical demand will result in a reduction of more than 150 tons of $CO_2$ emissions. To define long term outcomes, the performance of each participating WWTF will be tracked using EPA's Energy Star Portfolio Manager[7] tracking program.

In addition, the ERP for restaurants and other food servers will lead to increased compliance with oil & grease discharge in wastewater. A viable renewable energy source may be realized in the form of collected grease from grease traps to be used in WWTF bioreactors.

[6] ISO New England http://www.iso-ne.com
[7] http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager

**Budget Summary (3 years)**

**State:** Rhode Island

**Agency:** Narragansett Bay Commission (NBC)

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**Project Title:** Sustainable Energy Management Practices for Wastewater Treatment Facilities

*Financial Information removed by EPA as confidential business information.*

**Environmental Results Past Performance.** The following is a list of federally funded grant projects/programs performed by the various project partners (NBC, RIDEM and URI):

| Project | Lead Agency | EPA Support | Results |
|---|---|---|---|
| Auto Body Sector Environmental Results Program | RIDEM with URI | No | Training for approximately 20% of the regulated universe; 50% participation rate with the voluntary program; Significant reductions in exposure to auto sanding dust and methylene chloride; statistically significant improved compliance with 24 EBPIs; a paper authored by OTCA staff has been accepted for publication in the *American Journal for Public Health*. |
| Underground Storage Tank Environmental Results Program | RIDEM with URI | Yes – approximately $70,000 in Contractor Services provided by EPA Region 1 | Conducted 6 training sessions with approximately 125 facilities represented (approximately 18% of regulated universe); 91% participation rate with mandatory program; average 74% baseline compliance with 16 selected EBPIs; developed and implementing mobile inspection program using Tablet PCs; Computation of statistically significant improvement rates underway |
| Lead Paint Removal Contractor Environmental Results Program | RIDEM with URI | Yes - $35,000 Grant from EPA Region 1 | Developed industry work book and check list; Issued 44 Certificates of Participation, Posted informative web site; planning inspection program to measure compliance |
| Amalgam Separator Environmental Results Program | RIDEM with NBC | No | Developed electronic check list with Program Partner (Narragansett Bay Commission) RI.gov : Survey : Survey #47: DEM Dental Amalgam Mercury Recycling Certification Form; program is underway with approximately 30% of dental facilities participating at this time. |
| Auto Salvage Sector Environmental Results Program | RIDEM with NBC and URI | Yes -$200,000 EPA State Innovations Grant | Developed industry work book and check list, completed 30 random baseline, inspections, stakeholder meetings being scheduled |
| States Common Measures Project | RIDEM | Yes - $250,000 EPA State Innovations Grant | RI is a full participating state, completed training on statistical analysis using CADMUS tools, selecting sectors and EBPIs. |
| Stormwater Management Pollution Prevention | NBC | $35,000 PPIS Grant | Developed stormwater pollution prevention checklist, conducted more than 35 industrial stormwater management assessments, and organized and sponsored two stormwater management workshops. |
| Renewable Energy Opportunities for POTWs | NBC | $25,000 PPIS Grant – project is ongoing | Conducted energy use assessments of all NBC facilities, and initiated two renewable energy projects. NBC is currently planning workshop on renewable energy opportunities for regional POTWs for the Summer of 2008. |
| MS4 Construction Site Runoff ERP | RIDEM with URI | Yes -$200,000 EPA State Innovations Grant | New project to develop a self-certification program using ERP tools for the use of BMPs to control erosion and sedimentation from construction sites greater than one acre. |

**Programmatic Capability**

Underground Storage Tanks Environmental Results Program
EPA Support: approximately $70,000 in contractor assistance
DEM was technically able to successfully manage and carry out the agreement by:

- ✓ Convening a stake holder process with industry representatives to develop a work book based on the federal model and a check list. The check list was substantially organized by the industry stake holder group to meet their needs.
- ✓ Implement a training program with the assistance of the EPA contractor. DEM and the contractor held six training sessions over a two month period at various locations in Rhode Island.
- ✓ Conduct random and targeted inspections to establish base line conditions and ensure program compliance.
- ✓ Develop and implement a statistical analysis of check list questions to measure compliance.

DEM met the reporting requirements for this project by producing the work book and check list on time, conducting the stake holder meetings, and implementing the program in a timely manner. Rhode Island is the first state to use ERP in the UST sector.

Auto Salvage Yard Environmental Results Program
EPA Support: $200,000 State Innovation Grant
DEM continues to be technically able to successfully manage and carry out the agreement by:

- ✓ Developing a multi-media work book and check list for compliance with Air, Water and Waste compliance requirements.
- ✓ Conducting more than 30 base line inspections
- ✓ Beginning the stake holder process – the first meeting will be held on January 25, 2007.

DEM is meeting the reporting requirements for this project through the submission of timely quarterly reports. This project is on schedule and has met or exceeded all grant commitments.

Underground Storage Tanks – Alternative Inspection Programs and the U.S. Energy Policy Act of 2005
EPA Support: $250,000 State Innovation Grant
The project period began on January 1, 2007. A kick off meeting was held with project partners on January 5, 2007.

URI and NBC have both completed a number of EPA PPIS grant projects.