State Innovation Grant Project
Rhode Island Department of Environmental Management (DEM)
Progress Report #3
July 1, 2007 to September 30, 2007

Project Title: Underground Storage Tanks—Alternative Inspection Programs and
the U.S. Energy Policy Act of 2005

Section 1 – **Summary of Activities.** The major activities that took place during the reporting period included final stages of baseline data management, meetings/conference calls, and economic analysis. As part of the Environmental Results Program (ERP), baseline information for the randomly selected 100 facilities was segregated, checked for completeness, and are still being formatted to be analyzed as Environmental Business Practice Indicators (EBPI's). Several meetings were held with DEM and URI project participants. As part of the interstate comparative model development, communications with New Hampshire State UST program staff continue to take place as part of an effort to compare ERP with the traditional inspection program used in NH. More contact with Florida UST staff has taken place in an effort to obtain checklist information though more work is needed. Also as part of the comparative model, a first order economic analysis was performed on RI's program to compare traditional versus ERP approaches.

Section 2 – Accomplishments/Problems. The information from the 100 baseline inspections performed in 2004 is still in the process of being formatted for statistical review. Each facility checklist is read through carefully and all responses inputted into an Excel spread sheet (see attachment). At the end of this reporting period, all of the baseline checklists had been inputted except for some of the Stage I, II data since that particular information is collected by a different DEM department (Office of Compliance and Inspection). A quality control review of the inputted data is also currently underway to ensure accuracy of the baseline information. Key EBPI's have not yet been selected, but project staff have begun to evaluate potential EBPI's based on regulations in the 7-8 major areas (e.g., tank corrosion protection, tank leak detection). The post-ERP inspections for the first round are taking longer than originally anticipated and are expected to be completed by the end of the next reporting period (December 2007), at which time another 100 facilities will also be selected at random to gather all the information needed for the first round statistical analysis. URI and DEM met to discuss the appropriate statistical models including linear regression.

A total of 249 facilities submitted 1097 return-to-compliance forms (RTC's). Project personnel have completed review of each checklist and organized the RTC's into a single Excel file (see attachment).

As mentioned in the previous report, there were some problems retrieving checklist information from Florida as part of the comparative analysis. The checklist used for the UST inspections is critical to be able to compare potential indicators, but FL has been unable to provide the checklist since it is available only in electronic format that RI cannot read. FL sent the user's manual for their electronic system, but it is very long and difficult to extract the needed information. It has been determined that a trip to meet with FL staff is needed and will most likely take place in the next reporting period.

Work with New Hampshire is ongoing as their checklist information has already been obtained and is currently being analyzed and compared with RI's checklist. Once the key indicators are selected for RI, a direct comparison to the indicators selected in NH's checklist can be performed.

Significant progress was achieved in this reporting period to develop a template for comparing the economics of the different programs, traditional versus ERP. It was decided to initially set up the analysis to compare the two approaches *within each state*. In other words, rather than comparing one state's costs for their UST inspection program with the costs of another state's program (where different demographics and program structures are sure to exist), a better understanding of the economic advantages (or disadvantages) of using ERP would be gained by looking at the effects of changing a program *within a single state*. This type of analysis can provide any state a relatively clear explanation of what cost differences might be expected if ERP were to be implemented in their own state. The template was created taking into account tangible costs like personnel and travel. As an initial trial, figures for RI were used (see attachment). Traditional inspection costs (250 facilities/year) were calculated, and then different ERP scenarios were presented (100 or 250 sample sizes every year, 2 years or 3 years). ERP start-up and annual operating costs were estimated and "payback" calculated to illustrate potential cost savings.

It appears that for RI, ERP would result in realizable cost savings for all the scenarios presented. Obviously, these potential economic advantages are predicated on the findings that ERP is just as effective as (if not more than) traditional inspection programs mandated by the Energy Act. A similar analysis is currently on going with New Hampshire; a comparative template similar to the one developed for RI should be completed by the next reporting period.

The QAPP for the project was revised with respect to the statistical sampling protocol and submitted to EPA.

Section 3 – Schedules. In reference to the original project timeline, the tasks and milestones are for the most part in line with the expected schedule. The partner states for the project have been selected, FL and NH, though FL has yet to provide their checklist. Baseline data is almost finalized and is being prepared for statistical analysis.

Section 4 – Funds. *Financial information removed by EPA as confidential business information.*

Section 5 – Estimates. It is anticipated that the original timeline and funding schedule will be followed for the remainder of the project. Updates will be provided in future progress reports.