Vermont Department of Environmental Conservation
Waste Management Division
Final Proposal for the State Innovations Grants 2004

1. **PROJECT TITLE:** An Environmental Results Program for the Retail Gasoline Sales Sector

2. **APPLICANT INFORMATION:**

Applicant Name:	State of Vermont Department of Environmental Conservation (VT DEC), Waste Management Division
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3. **FUNDING REQUESTED:** **$200,000.00**

4. **PROJECT PERIOD:** **September 2004 - September 2006 (may be adjusted depending on EPA Award Date)**

5. **NARRATIVE WORKPLAN**

Project Background

This project would use the Environmental Results Program (ERP) model to achieve a measurable improvement in compliance with sections of several federally delegated regulatory programs at facilities within the retail gasoline sales sector as well as other facilities regulated by the Vermont Underground Storage Tank (UST) program. The project seeks to measure and improve compliance at the subject facilities with: the Underground Storage Tank program, RCRA generator requirements; Stage II (and possibly Stage I) air rules; and the floor drain aspects of the Underground Injection Control (UIC) program. In addition, this project could evaluate compliance with the Spill Prevention Control & Countermeasures (SPCC) plan requirement. Enhanced outreach to the sector would focus on the use of a sector-specific regulatory and best management practices (BMPs) workbook to achieve cross-media compliance and pollution prevention, and to provide training for the sector.

The State of Vermont currently has approximately 1.5 full-time equivalents (FTEs) conducting inspections in its federally delegated UST Program to oversee compliance with the Vermont Underground Storage Tank Regulations (VUSTR). The regulated community consists of approximately 2,400 USTs at approximately 1,100 facilities. The Vermont UST program currently conducts approximately 100 inspections per year and does not anticipate having new resources in the foreseeable future to significantly increase the number of inspections. At the current rate of inspection, it would take the Vermont UST Program

over 10 years to evaluate each facility once. Under the ERP model, an assessment of every facility's compliance status would be conducted and submitted to VT DEC on an annual basis.

The Vermont UST program is an established program seeking improved sector-wide compliance through development of a sector specific ERP Program. The ERP model can achieve this goal through a combination of enhanced technical assistance, outreach, targeted and random inspections, and a mandatory self-certification program. Retail gasoline sales sector facility operations have historically led to significant environmental impacts from the release of petroleum products to the environment. The following three graphics demonstrate the need to address this widespread and serious environmental problem of improper management of retail gasoline sector facilities. As these graphics show, the remediation of motor fuel UST (similar to an RGS definition) clean-up costs account for 70% of the Vermont Petroleum Cleanup Fund annual expenses. In addition, virtually no town has been spared from a release from an UST system.

In addition, the Vermont RCRA program has found the retail gasoline sector to have unique, and very common, compliance problems. In the last few years, the Vermont RCRA program has forwarded formal enforcement cases against retail gasoline sector facilities involving 18 locations. Several of these cases also involved violations of the Vermont Underground Storage Tank Regulations as well as Stage II air violations.

Project Overview

An Environmental Results Project (ERP) is a common sense approach to achieving enhanced environmental protection. The VT DEC proposes to use the ERP approach to assist Retail Gasoline Sector (RGS) facility owners and operators in understanding and complying with several applicable environmental program regulations and going beyond compliance to prevent pollution and provide for increased protection of public health and public and worker safety. The ERP approach provides facility owners and operators the information needed to maintain applicable operational requirements while also improving accountability to the public for environmental performance.

This proposed Environmental Results Project will include the following typical components:

- ✓ A workbook that includes Best Management Practices (BMPs) and compliance requirements. The workbook is a guide to compliance with the self-certification form mentioned below;
- ✓ A BMP checklist for use by the facility in assessing the status of compliance, pollution prevention, and other health and safety practices;
- ✓ A compliance self-certification form that the facility owners and operators are required to complete, sign and return. On the form, the facility owners and operators must certify the current compliance status of the facility and acknowledge that the facility must comply with all applicable environmental laws;
- ✓ A Return to Compliance form that is used to address compliance problems identified in the self-certification process that cannot be corrected at that time. The form establishes a return to compliance schedule and deadline for compliance. This form must be signed and returned when a facility cannot certify full compliance with all applicable regulatory requirements;
- ✓ Workshops to provide technical and compliance assistance to facility owners and operators, and to provide training on the requirements of the ERP process;
- ✓ Inspections by the VT DEC to confirm the accuracy of the certifications and compliance with the applicable environmental regulations; and
- ✓ Ongoing technical and compliance assistance by telephone, on-site assistance (as resources allow), and a project-specific web page with FAQs and additional resources.

This project facilitates the transfer of innovation by being designed to accommodate: additional regulatory requirements within this sector program; the use of the project model for other industry sectors and regulatory programs within Vermont; and the use of the project model by other states. The project would be fully documented, modular in design, and tracked on the project's web site. It is anticipated that this project will serve as a model for other sectors where there is overlap between regulatory programs, or pollution prevention opportunities, to communicate with one voice to regulated community in order to promote multi-media compliance. This proposal is designed to coordinate programs where they overlap naturally rather than force a multi-media model in a situation where it does not belong. This approach may likely be widely used in the future as a successful alternative to the cumbersome multi-media programs of the past. This program seeks to increase both compliance within the sector as well as beyond compliance activities (reduce pollution) with a minimal increase in resources.

Project Workplan

This project proposes several areas of innovation: economy, modularity, assistance, and the communication of compliance results.

First, due to a limited budget and limited grant availability, this project would demonstrate how to implement an "ERP on a shoestring." Because the ERP concept is now sufficiently established, the VT DEC can show through this proposal that a successful ERP can be maintained on a very limited budget. (The bulk of the grant money will go toward the development and initial implementation of the ERP). The second element of economy is the cost savings that will result from the coordination of reporting requirements of a number of currently uncoordinated reporting requirements from various programs, many driven by federal law. Both the regulated community and the VT DEC will benefit from these cost savings. The sector will receive more cost-effective (to the state) compliance assistance and well as compliance oversight thereby reducing potential environmental impacts.

The second area of innovation involves modularity. This proposal would establish the ERP in a "modular" format that would allow for: (1) straightforward future expansion to cover new regulatory requirements or additional regulatory programs, and (2) easy transferability to new sectors and programs. It would be designed at the outset to serve as a model for two other areas which the VT DEC believes lend themselves to the ERP approach: the auto salvage sector and the Stormwater Program's multi-sector general permit. The project would be designed to be transferable to other states. A Vermont web page would track the project and serve as a repository for the project design and reports.

The third area of innovation involves the broad use of technical and compliance assistance to enhance compliance while, at the same time, minimizing the potential for the cross-media transfer of pollutants. It appears likely that the Chafee Bill (S.195 - now before

Congress) will soon require states to increase assistance efforts to the UST regulated community.

The fourth area of innovation involves the ability of the ERP model to generate data that measures program performance. This is accomplished by comparing compliance rates from the initial inspections of a statistically valid number of facilities to the compliance rates found through random inspections after the information & education and self-certification phase of the project. As the public and policy makers increasingly demand results from governmental efforts, it is not enough to simply say that we are doing well in meeting our output goals; we need to be able to demonstrate the specific progress being made in meeting the desired outcome of enhanced environmental protection. Both environmental performance and performance measurement would be enhanced through more effective traditional inspections and enforcement that would be facilitated by the evaluation of self-certification statements.

Project Schedule (Table)

Task/Milestone	Task Description	Start Date	End Date
Stakeholder Outreach	Outreach to internal and external stakeholders (including targeted facilities) about the project.	10/15/04	09/30/05
Goals identification	Finalize the goals of this project, upon which metrics will be based	10/15/04	12/30/04
Develop Logic Model	Develop a logic model with stakeholder involvement. Logic model can assist in development of metrics and data needs.	10/15/04	1/15/05
Measures identification	Development of metrics to be tracked by this project.	12/30/04	3/30/05
Prepare legislation	Prepare draft legislation for (1) generic ERP enabling legislation for agency (not necessary for this ERP, but helpful), and (2) fee legislation to cover program costs after grant period	10/15/04	12/1/04
Revise UST Regulations	Draft language for mandatory self-certification for all UST facilities (or all UST facilities in the RGS)	10/15/04	12/15/04
Formal APA Rule Revision Process	Average timeframe for selective rule revisions is 6 months	1/1/05	7/1/05
Facility identification	Determine the exact characteristics of facilities to be targeted, and compile a list of facilities from reliable sources.	10/30/04	12/30/04
Statistical methodology	Development of a statistical methodology to drive performance measurement and analytical tasks.	1/1/05	3/1/05
Data input & management	Development and implementation of an approach to cost-effectively inputting and managing ERP data, including primary and secondary data. Primary data consists of data from inspection reports and facility forms (including self-certification forms). Secondary data sources include lists of facilities from regulatory and private sector databases.	11/1/04	6/30/06
QAPP finalization & approval	Finalize QAPP based upon results of the measures identification, statistical methodology, and data management tasks. Primary data collection will not occur before relevant parts of the QAPP are finalized and approved by EPA.	3/1/05	5/1/05

Task/Milestone	Task Description	Start Date	End Date
Baseline inspections	Inspections at facilities to establish a performance baseline. Facilities selected at random from the entire targeted population, based upon sample design from statistical methodology.	5/1/05	7/1/05
Workbook and Certification Form Finalization	Finalization of workbook, outreach and assistance materials, web resources, and certification forms.	3/1/05	7/1/05
Facility assistance/Outreach	Delivery of compliance/technical assistance to facilities, which is expected to take the form of workbooks, fact sheets and/or workshops.	7/1/05	10/31/05
Self-certification	Implementation of a mandatory facility self-certification approach. Self-certification refers to the submission of a legally binding record of a facility's compliance and beyond-compliance practices.	9/1/05	10/31/05
Self-Certification Deadline	Self-Certification and RTC forms due	10/31/05	10/31/05
Analysis of Self-Certification Data	Analysis of Self-Certification data with primary purpose of identifying opportunities for selective follow-up (next step).	11/1/05	12/15/05
Selective follow-up	Selective follow-up with self-certifying facilities, based upon analysis of self-certification data. Targeted follow-up may include phone calls, inspections and enforcement.	12/15/05	3/15/06
Post-certification inspections	Inspections at facilities to establish whether sector performance measures (and other measures) have changed since the baseline. Inspection data also used to cross-check self-certification data at inspected facilities. Facilities selected at random from the entire targeted population, based upon sample design from statistical methodology.	4/15/06	5/15/06
Data analysis	Analysis of baseline, self-certification, and post-certification data to understand change in facility performance and overall outcomes of interest. Assessment of project efficiency.	5/15/06	7/15/06

Task/Milestone	Task Description	Start Date	End Date
Preparation of Final Project Report	Draft and finalize final project report.	8/15/06	10/15/06
Reporting to EPA	Reporting shall include quarterly, annual and final reports.	12/30/04	9/30/06

The project would begin immediately after (1) a grant award, and (2) the approval of the Vermont legislative Joint Fiscal Committee. The project would begin with the selection of contractor to assist with the development of the project, internal VT DEC meetings among participating programs to determine the scope of the project, and the hiring of a project administrator. The Vermont UST Regulations would be amended to require the self-certifications. Legislation would also be drafted to set fees that would allow the project to be self-sufficient after the grant period. Broad enabling legislation for ERP-type projects that cross current programmatic boundaries would also be proposed. It is estimated that this initial work would be completed within four months.

The second phase of the project would be to work with the selected contractor and stakeholders to develop an implementation plan covering the development of: the self-certification form, outreach materials, the sector-specific BMPs and compliance requirements workbook, statistical requirements for baseline and follow-up inspections, a data management system, and the creation of a tracking system for project performance. Baseline inspections would be conducted during this phase of the project. It is estimated this phase would be completed in 6-8 months.

The third phase of the project would include the outreach efforts and all self-certification related activities. An information and education effort to notify the regulated sector of the initiative would be conducted early in this phase. This would consist of distributing information by mail and email, maintaining a web page devoted to the effort, and conducting a series of workshops around the state. The workbooks containing BMPs, compliance requirements, and the self-certification forms would be provided in this phase by mail. The workshops would provide direct outreach and training, and on-site technical and compliance assistance would be offered as resources allow. The workshops would also provide a forum to discuss the mandatory self-certification and provide guidance for its completion. A fee would be required with the submission of the self-certification.

Enforcement efforts for failure to submit the self-certification form, the return to compliance form, and/or instances of significant non-compliance would be conducted in this phase as well. Post certification inspections would also be conducted in the certification phase. These inspections serve to verify self-certification data, return to compliance data, and provide further input into the statistical model to document changes from baseline conditions.

The fourth phase of the project would involve the analysis of the data and the development of a report documenting results of the initial round of work.

ERP Development and Implementation

The VT DEC will rely to a large extent on a qualified ERP Contractor to assist in the development of the ERP experimental design, outreach initiatives, the statistical model, and necessary QAPP revisions. The ERP will be developed in consultation with broad stakeholder input that includes trade organizations and the direct involvement of the target facilities. The ERP will be developed to maximize the likelihood that measurable environmental results will accrue from the project. The ERP will also be developed in a manner that allows for the transfer of the project design to new sectors and programs in Vermont as well as to other states.

Implementation of the ERP will follow the experimental model developed by the project and be governed by sound data collection and analysis procedures of the project QAPP. The QAPP will be amended as necessary to ensure data quality objectives are met and measurable environmental results are documented. The ERP Contractor will assist in the implementation of the ERP as outlined below:

- Assist with project design
- Develop statistical methodology
- Assist VT DEC Information Technology (IT) staff in the development of necessary data systems and hardware infrastructure
- Assist VT DEC staff in review and presentation of outreach materials
- Assist VT DEC staff in stakeholder outreach, especially concerning the benefits of ERP from experiences of other states
- Assist VT DEC staff in analysis of project data and presentation of results
- Review data and provide QA/QC

ERP Process and Methodology

The ERP model will serve as a framework for coordinating the reporting that the various DEC regulatory programs require of these facilities. This coordination will enhance the DEC's ability to view compliance across programs and will reduce the paperwork burden for both the sector facilities and the DEC. Although the amount of paper processed by the sector facilities may at first be increased, the burden associated with that paperwork should decrease since it will be organized as the facilities operate, not as government operates, and will be accompanied by clear guidance for its completion. The various reporting requirements for this sector are currently program-driven and not coordinated. This project would minimize reporting burdens by consolidating as many reporting requirements as possible (others not currently identified can be added to the project at any time) while also reinforcing, both internally and externally, the notion that facility compliance crosses media and programmatic boundaries. It is anticipated that this coordination, and the automation of the certification report processing, will result in cost savings that will benefit the regulated community and the VT DEC.

Stakeholder Involvement

The project will seek broad stakeholder involvement in the design and implementation of the project. Stakeholders will include, at a minimum: the target facilities, trade groups, municipalities, environmental groups, all DEC programs with jurisdiction over target facilities, other state and federal programs with jurisdiction over target facilities, and the general public. Stakeholder meetings will be announced via mass-mailings and advertisements in media (TBD). Stakeholder meetings will be held in various locations around the state to maximize input.

Performance Measurement

This project focuses on priority environmental issues by targeting an industry sector that is present statewide with significant potential for environmental releases and emissions. The project is intended to improve compliance within the sector with requirements of four federally-delegated programs: UST, RCRA generator requirements, the Clean Air Act (CAA) Stage I & II requirements, and the Safe Drinking Water Act (SDWA) UIC requirements.

This project would establish sector-specific, cross-media Best Management Practices (BMPs) as well as compliance guidance materials. The purpose of the BMPs would be to encourage facilities to go beyond compliance to reduce waste, pollution, and emissions through the use of better operation and maintenance practices as well as pollution prevention practices. This project would encourage the regulated community to achieve reduced compliance costs by addressing all compliance and environmental issues at once through cross-media BMPs (that lead to compliance) rather than narrowly focusing on whatever problem was identified during the last regulatory inspection.

This project will build on lessons learned from the last decade of searching for ways to measure prevention efforts by using a mechanism (ERP) that specifically measures results. The project is likely to produce quantifiable reductions in hazardous waste generation as well as quantifiable improvements in compliance with all four prevention programs. While one of the main goals is to reduce spills and leaks from UST facilities, the lag time between occurrence and detection may prevent quantification of these goals.

This project establishes goals for innovation, and indicators to measure progress toward those goals, by using the ERP model for the project's structure. The project is designed to demonstrate accountability for environmental results within the sector by measuring progress towards the key project indicators from the various project programs on an annual basis. The information concerning project design, tracking, measurement, and reporting of results will all be maintained on a web page devoted to this project. Results from the project would be generated annually after the first implementation year. Specific goals for

the project would include both environmental result goals as well as compliance goals. The environmental result goals would be derived from the key indicators of the project and would likely include measures of: UST releases, air emissions, and hazardous waste generation (sumps, spill buckets, and releases). The compliance goals for the project are:

- to reach approximately 85% participation by the sector facilities during the first certification year.
- to reach 100% participation by the sector facilities by the end of the second certification year.
- to improve the initial rates of compliance (as determined by the initial and follow-up random inspections) with selected UST, RCRA, Air and UIC requirements by 20% by the end of the first certification year (the second project year).

In the long-term, it is expected that this approach will yield: annual multi-media compliance measures across all facilities in the sector; improved sector-wide compliance; reduced emissions and releases; reduced costs of compliance and program administration; and improved communication between the regulated community and the VT DEC concerning compliance (regulatory improvements, self-reporting).

Data Quality Assessment, Validation and Usability

Data quality will vary. The quality of the data required to demonstrate compliance with applicable regulations will be consistent with what is currently required by the various regulatory programs. Both data and secondary data will be validated using protocols to be developed in accordance with the project QAPP, as revised. Cross-checks will be used wherever possible. Data will be analyzed to ensure that unusable data is identified and removed from consideration under the project. Further descriptions of assessment, validation, and usability can be found in the project QAPP.

Data Analysis

All data analysis will be governed by the project-specific QAPP.

Measurable Environmental Improvement

This project is designed to improve environmental results by the intended outcomes of: reducing the threat of releases of petroleum, hazardous wastes, and hazardous materials to groundwater (a significant source of drinking water in Vermont) and soils through enhanced compliance with UST, RCRA, UIC, and sector-specific BMPs; reducing air emissions through enhanced Stage II vapor recovery compliance; and reducing hazardous waste generation through the use of the BMPs.

The ERP model will allow for the measurement of annual compliance progress *for the entire sector, with several environmental laws*. This proposed ERP model consists of an initial round of inspections of a statistically valid number of facilities, sector-based multimedia outreach and education, a mandatory multi-media self-certification on a sector-specific form, a processing fee, and data analysis that would result in statistically valid compliance reports to document project performance. Current environmental programs tend to measure outputs rather than outcomes, whereas this approach would measure environmental results on a holistic cross-media basis.

Public Involvement

Public involvement will be carried out as part of the stakeholder involvement since the target facilities represent a sector that has had historical impacts on neighborhoods from releases of petroleum to soils and groundwater. It is anticipated that the public will participate to improve the compliance status of these facilities

Reporting

Quarterly reporting to EPA will provide the status of the pilot project and progress towards milestones on the project schedule.

Project Budget (estimated)

See attached budget sheet.

Pilot Project Organization, Roles and Responsibilities

This pilot project will be managed from the Waste Management Division of the VT DEC. Three supervisors from the Division will have key roles in establishing the project and providing oversight of personnel and resources. These three supervisors are Peter Marshall (project manager), Chief of the Hazardous Waste Management & Prevention Section; Marc Roy, Chief of the Hazardous Waste Technical Services Section; and Ted Unkles, UST Program Supervisor. Resumes for these three key personnel are attached. They have over 40 years combined experience in working with the VT DEC with UST and hazardous waste management programs.