**Maine Department of Environmental Protections**
**Office of Innovation and Assistance**
**Final Proposal for the State Innovation Grants 2004**

1. **PROJECT TITLE:** Implementation of a Voluntary Automotive Body and Automotive Repair Environmental Results Program

2. **APPLICANT INFORMATION:**


**Applicant Name:** State of Maine Department of Environmental Protection (DEP), Office of Innovation and Assistance (OI&A)
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3. **FUNDING REQUESTED:** **$ 152,000.00**

4. **PROJECT PERIOD:** **August 2004 – August 2006 (may be adjusted dependent on EPA award date**

5. **NARRATIVE WORKPLAN**

DEP proposes to pilot a voluntary innovative environmental permitting system based on the Environmental Results Program (ERP) model for a currently non-permitted sector. Maine contains over 4,000 registered motor vehicle auto body and repair shops in accordance with 1997 U.S. Economic Census (www.census.gov). This is a significant amount of facilities and many are located in our densely populated areas that are classified in accordance with air quality non-attainment areas. The Maine Department of Environmental Protection Office of Innovation and Assistance proposes to conduct a focused Environmental Results Program including compliance and pollution prevention assistance effort targeting the auto body and auto repair Industry. The projected impact of this project will be a significant increase in compliance and a cumulative increase in hazardous waste compliance and reduction in air emissions particularly in the Southern Maine region. The goals will be to measurably reduce environmental impacts from this sector and allow the sector and DEP to jointly initiate a self-sustaining ERP certification program. We will measure these outcomes by compliance numbers and volumes of air emissions.

The main issues and focus of our project include:

- Undertake a voluntary Environmental Results Program (ERP) to administer targeted assistance, implement a self certification program and measure the compliance results
- Research and develop a comprehensive list of Maine auto-body and auto-repair facilities
- Use voluntary incentive tools includingMaine's STEP-UP program to certify facilities that wish to go beyond compliance with a tiered certification program that includes performance measurements. Introduce Environmental Management System concepts by

utilizing EPA's Practical Guide to Environmental Management for Small Businesses
Target air quality non-attainment areas

- Focus on reducing VOC's that lead to ground level ozone
- Focus on energy reductions to reduce green house gas emissions by referrals to Public Utilities Commisson's small business energy assistance program
- Focus on proper handling of all materials to eliminate potential release to the environment
- Focus on worker exposure, health and safety including the life cycle of materials at the work place and reducing those contaminants being carried home.
- Focus on alternative proven pollution prevention technologies including parts washers, cleaners, cleaning methods, HVLP guns and down draft booths
- Measure Air compliance
- Measure key hazardous waste management compliance requirements.
- Measure VOC emission reduction in pounds
- Measure groundwater discharge compliance in relationship to car washing and Maine Waste discharge permit requirements

The vehicles we are considering to use for technical assistance purposes could include:

- Review existing ERP models from states including Rhode Island, Delaware, Colorado, Florida and Massachusetts
- Review existing best management practices guides and tailor to meet EPA and Maine DEP's regulations which will include a compliance checklist and some beyond compliance pollution prevention information
- Develop a focussed subset of Environmental Best Practices Indicators.
- Develop a Green Certification utilizing Maine Step-Up certification Program Commitment Track (refer to http://www.state.me.us/dep/oc/stepup/index.htm)

The project will build on lessons EPA and Maine Small Business Assistance Program has learned regarding innovation assistance activities including the following most recent pollution prevention and compliance outreach projects:

- Boat Building Compliance and P2 Project (2001-on going)
- Auto Salvage/Auto Repair Compliance and BMP Outreach (2002- on going)
- Massachusetts, Florida, Delaware and Rhode Island's ERP Models
- Governor's Awards for Environmental Excellence (Annual – P2 Celebration)
- Maine DEP Step-Up Program , P2 and sustainability focus (2001- on going)
- Maine Smelter ERP Project, MACT compliance outreach focus (2002- on going)

This project will include the following major elements of a new permitting model which presents the framework for environmental innovation including:

- Targeting this sector for the ERP model due to localized impacts including, Air and groundwater issues

- Differing in approach as we will use an outside small business assistance provider in identifying geographical areas with environmental justice and non-attainment issues or classifications
- Focusing on environmental issues including greenhouse gases, smog reduction, and improving water quality.
- Diversifying environmental protection tools and approaches by providing clear compliance information, resources and pollution prevention technologies through the ERP model and EMS guidance
- Fostering a new innovative licensing process through the ERP model in Maine by encouraging pollution prevention and sector compliance based on sector specific information and not size or amount of waste or air emissions emitted.

This ERP pilot project differs from other approaches, as we will do extensive training, outreach and manage self-certification through Maine auto associations. Maine DEP's Office of Innovation and Assistance learned a number of educational implementation strategies based on the success of the Boat Building and Repair (BBR) initiative and therefore will work with the Auto associations to adopt similar approaches.

Improved Efficiencies**:** Licensing through an ERP certification will increase administrative efficiencies by decreasing DEPs staff time reviewing manifest data and compliance site visits. This also will increase efficiencies for both businesses and the department by providing a multi-media one-stop place for business to have questions answered.

Reduced Regulatory Burden**:** For businesses, a reduction in environmental liability, manifest and shipping costs, switching to alternative non-hazardous parts washer will reduce potential of filing for an abbreviated license and/or filing for an air permit.

Reduced Emissions and Worker Exposure**:** Expected measure of quantifiable environmental improvements will be decreases in air emissions and reduction in worker exposure incidents.
Increased Compliance Rates: Measure increased compliance rates based on baseline inspections utilizing key best practice compliance indicators

Increased Pollution Prevention: Measure increase in pollution prevention.

Improved Innovative Outreach**:** Office of Innovation staff will collaborate to understand business and enviirnmental/human health protection needs by working closely with the association members, Coastal Enterprises Inc. (CEI), businesses, stakeholders and DEP compliance staff and getting their input regarding certification format, content, workshop design and implementation.

Improved knowledge and tracking of environmental performance within Sector:
Development of Environmental Best Practice Indicators (EBPIs) in coordination with Stakeholders, Association members and department licensing/enforcement staff including:
Develop Environmental Business Practice Indicators including:

Regulatory Indicators

- Is the facility in compliance with quantity and time limits for hazardous waste storage
- Does the facility have floor drains and are they capped or properly licensed with a holding tank (UIC)
- Does the wash cars and trigger the Bureau of Land and Water Quality's waste discharge program license
- Does the facility exceed potential to emit Air Quality standards (10 lb/hr or 100 pounds a day of regulated VOCs)
- Does the facility have a parts cleaner which is registered with DEP Bureau of Air Quality.
- Does the facility have a spray booth, compliance coatings and HVLP spray guns

Beyond Compliance Indicators

- Information and utilization of environmentally preferable products
- Recycling of Waste Oil and Solvents
- Health and Safety Signage
- Reduction in greenhouse gases
- Reduction in worker health/safety incidents

Increased Sector Environmental Awareness: Provide plain language guidance of our data results for stakeholders to understand the reporting and tracking of their environmental results measures. Therefore, the tracking, measuring, reporting and evaluating of the environmental results data will be readily transferable. Information from baseline inspections will be communicated to facilities. DEP's OI&A has been calculating pollution prevention in pounds and has recorded such information in benchmark studies. Since the early 1990s we have been measuring and tracking detailed outreach assistance.

Increasing Sustainable Practices: The long-term results of this project will be to successfully move this sector towards improved efficiency and sustainability through Maine DEP's STEP-UP Program. Other long-term results expected will be improved compliance, reduction in the volume of hazardous chemical use and waste generations, reduction in air emissions, reduction in worker exposure to chemicals, improved working conditions, improved environmental quality of the surrounding community.

Transferring Innovation
The innovation of this project will be transparent and readily transferred to other states and the EPA by Maine having all certification and guidance documents electronically

available. We will utilize the small business assistance programs and pollution prevention list serves to notify all states of the availability of the ERP documents including our Web site link address. The specific potential for widespread application or use of the ERP approach as a model for next generation is high based on the feedback we have received from our stakeholders and DEP Senior Management. Promotion of compliance assistance by peers and mentors through the sector association will further guarantee this success. Our experience delivering compliance and pollution prevention assistance with other sector industry associations has confirmed that technical information is more readily disseminated and accepted when promoted through sector's trade association(s). We will promote organization system change opportunities at the DEP by piloting the ERP model and instituting the self-certification concept to auto body/auto repair businesses. This will foster an innovative environmental problem solving mechanism both internally and externally. Businesses will have a better venue to have compliance and pollution prevention information in a plain language format that they will be able to certify they meet. Plain language compliance information will also be presented through training, on-sites, mentors, compliance videotape, green shop/clean shop guide and an audit/EMS guidebook with checklist.

Sustainable Funding Opportunities:
Funding of this program will set up an innovative yet sustainable regulatory process that can be used repeatedly within the Department when licensing other Maine Sectors. The ERP model will increase the number of licensed facilities and broaden the scope of licensed facilities, which will increase the level of regulatory fairness.

**A. Maine DEP Quality Management Plan**
Maine DEP Office of Innovation and Assistance has educated senior management on issues related to establishing a pilot Voluntary Environmental Results Program as specified and aligned with our quality management plan. The Maine DEP seeks to maintain the highest appropriate standard of quality in each aspect of its operations in order to meet its obligation to protect Maine's natural environment and the health of Maine citizens. To this end, Maine DEP operates under a Quality Management System (QMS). As part of its QMS, our Quality Management Plan (QMP) provides the guidance Maine DEP uses to establish and maintain consistent and appropriate QA/QC/QI operations agency-wide. The individuals served by the implementation of Maine DEP's QMP and all other resulting quality efforts include: our agency's staff; Maine citizens; non-governmental interest groups; federal, state and local government administrative agencies; and, Congress and the Maine State Legislature. Maine DEP is committed to serving these customers with the highest appropriate standard of quality in our services.

All managers are responsible for maintaining QA/QC/QI for the area within their span of control. As such, commitment to and responsibility for the quality objectives and operations detailed in our QMP and any Quality Assurance Project Plan (QAPP) or Standard Operating Procedure (SOP) in place at Maine DEP begins with the commissioner and continues through all levels of management and staff. The State's Performance Management Plan for managers includes performance standards consistent with our Quality Management Plan, which provides guidance for implementation.

Likewise, managers should include appropriate responsibility for maintaining QA/QC/QI in the performance expectations and review of their staff. The Maine DEP's ongoing implementation of its QMS uses the auditing regime established in Element Nine of our QMP to annually target areas of interest identified by the agency's Quality Management Steering Committee (QMSC) for improvement. Managers assure that Corrective Action Requests and Plans resulting from such audits are responded to and implemented in a timely manner by supervisors and employees in their units.

**B. Maine Department of Environmental Protection Office of Innovation and Assistance Implementation of a Voluntary Automotive Body and Automotive Repair**
**Environmental Results Program Quality Assurance Project (Workflow) Plan**

## I. Overall Project Goals, Objectives, Questions and Issues

The main goals of this project is to promote pollution prevention concepts , increase public and industry awareness of environmental health concerns particularly in environmental justice, and measure increased environmental compliance. Because there are at least 4,000 auto body/auto repair businesses in Maine, it is anticipated a large impact will be made on the aggregate reductions in hazardous waste and air emissions. The focus area of our outreach will begin with the most populated areas in Maine (southern coastal), which also includes air pollution non-attainment areas. [I think it would be helpful to be clear that, for the purposes of this project, Southern Maine is the focus. This and earlier language seemed to suggest that the whole state will ultimately be a part of this particular project that is being funded.] The aggregate reduction impact in the Southern Maine region will not only improve the environment but also reduce exposures to the mass public to air toxins from both point source and fugitive emissions.

The measures we will be using to evaluate the project will include:

- Quantity of Air pollution reduced or mitigated including VOCs and HAPS through proper use of paints and cleaners. Changes in practices to high efficiency/transfer paint techniques and use of alternative cleaners.
- Rate of compliance with key Hazardous Waste regulations through manifest tracking and compliance checks.
- Quantity of water pollution reduced or mitigated- this will include compliance with the underground injection control program, waste water discharge licenses issued and possibly secondary data from the program.
- Compliance rate will be assessed through initial and final compliance site assessments.
- Resource savings to the sectors on average by use of accounting practices including pollution prevention cost accounting such as E2/FINANCE. Because this may be considered confidential business information, we will look for average estimates and calculate for the entire sector.
- Reduction in risk to the community focused in environmental justice neighborhoods within the Southern Maine regional air non-attainment region.
- work with RCRA compliance staff on streamlining two existing hazardous waste policies/licenses (abbreviated license and rag/wipes)

If resources allow, the data collected will be used to evaluate the baseline compliance, end of project compliance, and the delta between the two. The information will also be used to evaluate if the self compliance certification results increased awareness and compliance It also will allow us to work on streamlining existing policies and licenses that have been documented to discourage pollution prevention and provide the opportunity to improve upon these. The long term consequences maybe if this project can

demonstrate self certification through the ERP model increases compliance rates and reduces administration time and effort the department may look for opportunities of adopting ERP as a licensing option. Please refer to the attached logic flow model which is the basis for our milestones and timelines of this project.

**II. Milestones and Timelines**

The following timelines are based on EPA's estimated final award date of August 2004: [you'll probably want a step below for the revision of the QAPP, most likely after database development and statistical methodology are finished]

| **Milestones** | **Begin Timeline** | **End Timeline** |
|---|---|---|
| Receive EPA grant funding | August 2004 | August 2004 |
| Hire Staff | August 2004 | September 2004 |
| Coordinate and implement a multi-state Workshop for compliance staff and states awarded State Innovation Grants | August 2004 | September 2004 |
| Train Staff in Multi-media training. This will be an ongoign process throughout the year. | September 2004 | October 2005 |
| Develop a Gantt chart detailing flow of work and timelines | September 2004 | October 2004 |
| Develop list of ERP candidates '(targeted facilities) through research and development and input into database. | September 2004 | December 2004 |
| Convene Stakeholders (Compliance Advisory Panel) Meeting and review process | September 2004 | December 2004 |
| Develop Incentives to attract volunteers into ERP. Work with staff and senior management as well as outside agencies including sector associations and insurance carriers. Outreach to trade associations, suppliers and distributors. | September 2004 | March 2005 |
| Develop 10-20 Environmental Business Practice Indicators (EBPIs) in coordination with key DEP compliance representatives<br>- Regulatory indicators<br>- Beyond Compliance Indicators<br>- High priority OHSA standards that would indicate a need for a referral to DOL Safetyworks to conduct a compliance assistance site visit. | September 2004 | March 2005 |
| Development of multi-media compliance checklist for certification | September 2004 | March 2005 |
| Develop an ERP database to house the indicator data. | March 2005 | July 2005 |
| Revise QAPP | July 2005 | August 2005 |

| | | |
|---|---|---|
| Review existing compliance records within the department to avoid inspections at facilities with recent or ongoing compliance issues. | October 2004 | December 2004 |
| Design a sampling approach such that we can determine if there are any statistical significant changes in environmental compliance performance as a result of using ERP | March 2005 | July 2005 |
| Develop and complete a draft compliance workbook | October 2004 | April 2005 |
| Prior to ERP outreach and education, conduct inspection at random auto body & auto repair facilities in order to attain baseline compliance data. | December 2004 | May 2005 |
| Conduct baseline inspection data analysis. | May 2005 | August 2005 |
| Develop and complete a final compliance workbook | May 2005 | August 2005 |
| Community awareness workshops conducted through town meetings and/or civic groups in the southern Maine region. | June 2005 | August 2005 |
| Conduct two workshops in the Southern Maine Regional Area to educate regarding ERP workbooks/checklists and distribute workbooks to targeted facilities. | September 2005 | October 2005 |

| Milestones | Begin Timeline | End Timeline |
|---|---|---|
| ERP information and Compliance guidebooks made available on Maine DEP Web site for easy access and increased transferability to other States. | August 2005 | August 2005 |
| Certification process period for facilities conducted | October 2005 | March 2005 |
| Review of self certifications by staff | March 2005 | May 2005 |
| Follow up post certification compliance site visits conducted targeting self-certified facilities. | May 2005 | November 2005 |
| Identify and assist in developing suggestions andstreamlines on HW RCRA policy issues developed and drafted: 1. Wipes/rags treatment options & 2. licensing technology. | 2004 | 2005 |
| Initiate contacts to facilities who are high performers interested in beyond compliance educat through a workshop on Maine DEP STEP-UP program | February 2006 | March 2006 |
| Tabulate Scores for EBPIs and total compliance per:<br>- Facility (aggregate EBPIs)<br>- Industry (aggregate EBPIs) | February 2006 | May 2006 |
| Tabulate accuracy analysis scores for self certification vs. Inspections | March 2006 | May 2006 |
| Auto body & repair facilities begin the sign up process with the STEP-UP Program | May 2006 | August 2006 |
| Track streamlines on HW RCRA policy issues developed and assist in the deparment in carrying the policies forward. | May 2006 | August 2006 |
| Develop and Complete Case study of ERP project (final report) | June 2006 | August 2006 |

**III. Resources:**

Please refer to the budget and resume of staff. In addition, staff and management assigned to this project will also rely on supporting information provided in the EPA ERP road map and Region I technical support.

**IV. Applicable Requirements:**

We will notify facilities of their compliance responsibilities in a good faith letter and will include incentives to do so.

**V. Data Required and Data Support of Objectives**

The data our project analyst will collect and assess are anticipated to include:

- Compliance rate through initial base line assessments and final compliance site assessments utilizing EBPIs.
- Resource savings through pollution prevention methods and planning including
- Number of floor drains and/or systems brought into compliance through UIC
- Number of facilities who obtain EPA Hazardous Waste Generator IDs
- Number of OSHA issues referred to Department of Labor SafetyWorks
- Reduced risk, utilizing existing approved EPA risk models calculate risk reduced to community and
- Pounds of VOC and Hazardous Air pollutants reduced estimated through existing models, known volumes reduced through incorporating P2 technologies including alternative parts cleaners, high transfer efficiency painting techniques.

**VI. Quantity and Quality of Data Required**

The quantity of the data will include data items applicable to all facilities. The sampling approach will be designed in order to be able to determine is there are any statistically significant changes in environmental compliance performance as a result of using ERP.

The quality and quantity of the data will be sampled and analyzed in order to maximize its statistical significance, within resource constraints. We will be relying on existing ERP Models as well as the EPA ERP advisory documents, including the Road Map and *Generic Guide to Statistical Aspects of Developing and Environmental Results Program* (2003). .

**VII. Data Collection and constraints**

Our primary data will be derived from inspections at randomly picked facilities who volunteer to participate in the program. We anticipate reviewing and using secondary data including existing air models as well as hazardous waste and air compliance rates for the auto body and auto repair industry. The secondary data may be used to link compliance measures to environmental outcomes.

**VIII. QA/QC Activities to Assess the Acceptance Criteria**

Data including the baseline, self certification, and follow up compliance assessments will be assessed by DEP's Office of Innovation and Assistance technical staff assigned to the project as well as the project manager. Consistent methods for review of baseline data and follow up compliance assessments will be employed by technical staff followed by spot checks and oversights by the Project Manager.

The information will be collected and organized in a dedicated secure project database, which will be backed up daily. At the end of the project the data will be evaluated to determine if facilities who participated in ERP's compliance rates improved as well as a

holistic overview of the sector to determine if an overall increase in compliance rates has occurred. Links to environmental outcomes listed in the logic model will be attempted.

**6. QUALIFICATIONS:**

Julie Churchill who has over 16 years of experience in the environmental field as well as project management will conduct the management and oversight of this project. Please refer to Julie's attached résumé for an overview of her qualifications and experience. In addition, either an engineer or an environmental scientist with engineering coursework and/or air emission experience will conduct the direct day to day tasks of the project as well as undergo multi-media compliance inspection training. We are in the process of undertaking the hiring process for this candidate.

**7. TOTAL PROJECT COSTS**

| **Budget Categories** | **Total Project Costs** | **Proposed State Leverage Funds** | **EPA Funding** |
|---|---|---|---|
| DEP Staff Salaries and Benefits | $135,000 | $ 35,000 | $100,000 |
| Travel | 12,000 | | 12,000 |
| Supplies | | 2,000 | |
| Service Contract 1 Workshops CEI | 25,000 | | 25,000 |
| Service Contract 2 Statistics | 25,000 | 10,000 | 5,000 |
| | | | 10,000 |
| **Total** | **$199,000** | **$47,000** | **$152,000** |

**8. DETAILED ITIMIZED BUDGET**

| **Budget Categories** | **Cost $** |
|---|---|
| Personnel | 63,000 |
| Fringe benefits | 28,030 |
| Contractual Cost (2 contracts) | 30,000 |
| Travel | 12, 000 |
| Equipment | |
| Supplies | |
| Other | |
| Total direct costs | 133,030 |
| Total indirect costs (refer to indirect costs document attached, letter dated 10/08/03 form EPA) | 18,970 |
| **Total** | **152,000** |

**9. REPORTING REQUIRMENTS**

Quarterly reports will be submitted based on a schedule, which will be established by the EPA. A case study report will be submitted following the completion of the project. The report will include:

- Summary of the project
- Reductions achieved
- Rates of compliance achieved
- Cost analysis
- Problems
- Successes
- Lessons Learned