Colorado Department of Public Health and Environment's
Environmental Results Program Project Pre-Proposal

I. Project Summary

Project title: Colorado's Small Quantity Generator Environmental Results Program

State agency: Colorado Department of Public Health and Environment (CDPHE)

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During the past few years CDPHE has engaged in an internal review of its environmental programs[1] to identify and implement innovative approaches to existing regulatory programs, and to achieve more efficient or effective environmental protection. From this effort a series of innovative and increasingly sophisticated initiatives have been implemented that are very consistent with Environmental Results Programs in other states. We are now proposing the creation of a formal Environmental Results Program (ERP) in Colorado, and the work proposed under this grant will be done under this new program. The goals of CDPHE's ERP include:

- Implementing an ERP for small business sectors and regulatory groups subject to Small Quantity Generator (SQG) waste regulations that will also include air, water, and pollution prevention requirements and environmental outcomes;
- Exploring the relationship between ERP and the state's Environmental Leadership Program, including the use of environmental management systems;
- Expanding the SQG ERP to other environmental programs and divisions;
- Ensuring consideration of cross-media impacts when making environmental decisions;
- Achieving compliance with Federal and State requirements, but also encouraging performance above and beyond minimum requirements; and
- Expanding CDPHE's ability to effectively measure outcomes and outputs.

CDPHE's proposal goes beyond a single facility experience and provides change within the department that is systems-oriented and provides the framework for all future CDPHE ERP efforts. The program will be designed to promote greater compliance with SQG requirements and integrate (cross-media) environmental management. This program will be transferable to other States, particularly small to medium-sized states, because these states are looking for tools to gain greater environmental benefits from hazardous waste programs, but do not always have the funding or the regulated universe size to justify this type of resource commitment.

Colorado's proposal meets the three threshold criteria as follows:

- The project will apply multi-media and cross media, where appropriate, ERP to hazardous waste SQGs as a regulatory group under the following EPA grant authorities: Resource Conservation and Recovery Act (RCRA), Clean Water Act (CWA), and the Clean Air Act (CAA).
- The project focuses on enhancing compliance rates of and reduction or prevention of environmental impacts from SQGs, on a multi-media basis (air, water, and waste).
- Colorado is requesting $***** and meets the other application submission criteria.

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[1] Environmental programs include the Air Pollution Control Division, Sustainability Division, Water Quality Control Division, Consumer Protection Division and Hazardous Materials and Waste Management Division.

II.   Project Narrative

Colorado is applying for this grant to develop an innovative non-sector specific ERP for small quantity generators of hazardous waste (SQGs), that will include compliance, environmental, and public health benefits for hazardous and solid waste, air quality, and water quality requirements (where applicable). CDPHE intends to design the system to be automated with electronic workbook training tools, submittals, and compliance rate tracking. Colorado's ERP will be innovative because it will be designed for application to large non-sector specific regulated groups such as SQGs, as well as for use on specific business sectors (i.e., hospitals, dry cleaners, auto body shops). In addition, common environmental data measures will be imported to the national RCRAInfo database, which is accessible by the public, EPA headquarters and the regions. CDPHE will be relying to a great extent on the work Massachusetts' Department of Environmental Protection has completed to date on ERP, as well as other state agencies that have implemented ERP.

CDPHE's ERP approach will reduce transaction costs and provide improved results from a program, process, and sector-wide perspective. It will promote integrated cross-media environmental management with a high potential to transfer the automated system to other states and programs. CDPHE's goals and measurements will be constructed to quantify the results obtained from the projects. The ERP project will allow CDPHE to go beyond a single facility approach by applying a portable systems oriented database to large sectors or regulatory groups. The ERP project will encourage performance beyond minimum requirements by cross-media examination of the regulations and sustainability issues. The related benefits will be incentives for businesses to make better environmentally friendly choices. Colorado's ERP will also target appropriate high performing businesses to refer to the state's Environmental Leadership Program, which provides education on the development of environmental management systems, and will incorporate leadership incentives.

CDPHE's ERP will not only be portable but will also be designed for future expansion. Implementing this innovative program will meet and strengthen the goals of EPA's Strategic Plan by focusing on priority environmental issues including implementation of multi-media regulations that will allow cross-media problem solving approach to air, water, and solid waste.

A.   Problem to be Addressed

As with other medium-sized states, Colorado has a relatively small environmental compliance and enforcement staff compared to the large number of small but diverse business sources of pollution. Due to a lack of resources, many small businesses in Colorado are not "touched" using traditional on-site compliance assistance and enforcement methods. To resolve this issue, Colorado began the implementation of the self-certification ERP model on limited size groups in 2005 with good success. Many of today's environmental issues are not and will likely not be regulated in the traditional manner. The ERP allows CDPHE to begin collecting data on these unregulated areas so that non-regulatory methods to address them can be developed.

B.   Demonstration of Broad, Strategic Innovation and Vision of Project's Overall Impact and Innovative
       Changes in Management and Regulatory Processes (Section 5.2 Criteria)

In 2003 and 2004, Colorado applied the ERP model to a limited number of randomly selected non-sector specific SQGs. In 2005, Colorado implemented ERP on SQGs in the auto body business sector. The results of the initial projects presented a favorable cooperation between businesses and the state regulatory agencies and indicated positive environmental outcomes. The success of these projects has prompted the expansion of the ERP concepts into other CDPHE operations. With the assistance of this grant, the entire non-sector specific SQG universe ERP will be implemented in 2006-2009. Colorado has future plans to implement ERPs for the dry cleaning and hospital/waste pharmaceutical sector.

CDPHE's application of ERP projects to larger business groups requires the development of a consistent departmental approach based upon an automated electronic data system. The automated data system will: be designed to address sector specific (i.e., dry cleaners, hospitals/waste pharmaceuticals and auto body) and non-sector specific groups (i.e., SQG universe); be used as a tool that will lower transaction costs in priority environmental sectors; establish a consistent goal-based measurement and common reporting metric; be portable across specific and non-specific business sectors; and be transferable to other states and programs.

Ultimately, the proposed program will allow for any SQG to self-certify electronically on multi-media regulations. Participating businesses will be required to enter NAIC codes that the software will use to categorize the businesses into sectors. A web-based interactive workbook will then import specific questions on the appropriate multi-media regulations that apply to that business and the business will certify to their compliance with the regulations. The workbook will also be a tool to provide a web-based interactive sector-specific training (again based off of the NAICS code entered by each business) that will promote improved environmental performance by educating businesses on multi-media regulatory requirements that apply to them and pollution prevention techniques such as the use of alternative solvents and waste reduction methods.

To get facilities to go beyond compliance, compliance assistance will include assistance on energy efficiency, pollution prevention, and water efficiency, which will reduce greenhouse gases and other air pollutants, enhance water quality in the state, and result in cost savings for the participants. Incentives to the businesses are cost savings that result from waste reduction, product replacement, and regulatory status changes. The web-based system will also link to the environmental leadership program, which includes additional regulatory incentives.

CDPHE's ERP will include common metrics for national comparison of environmental measurements and tracking that will be used to demonstrate environmental results. Many of these results will be seen in environmental justice communities, since many SQGs are located in urbanized areas in Colorado.

The automated data system will be innovative because it will be designed to be portable for use in sector specific and non-sector specific applications. This approach allows Colorado to increase administrative efficiency, lower operational costs, and "touch" most regulated businesses without a one-on-one site visit. A regulatory and business sector approach will reduce transaction costs of ERP for other small to medium sized states that do not have as many facilities in any one sector as the more populated states and can easily be transferred to other states. Through multi-media self-certification and the examination of cross media impacts, CDPHE expects there will be an increase in compliance rates and a reduction in wastes, which will further the purpose of Colorado's Strategic Plan in attaining a sustainable Colorado.

Link to EPA's 5 Strategic Goals

Colorado's proposal meets several EPA's strategic goals, including Goal #5 to improve environmental performance through compliance with environmental requirements, preventing pollution and promoting environmental stewardship, while encouraging innovation and providing incentives for businesses to promote stewardship. Colorado's ERP will focus on beyond-compliance and stewardship activities through compliance assistance (5.1.1), compliance incentives tied to leadership (5.1.2), with more effective enforcement (5.1.3) that better targets those with poor compliance rates. In addition, by incorporating pollution prevention and stewardship into the workbooks, the proposal meets EPA's sub-objectives 5.2.2 and 5.2.3 and by incorporating ERP into various programs meets environmental policy innovation sub-objective 5.2.4.

With the goals of enhanced compliance and waste reduction, Colorado's ERP proposal also meets EPA's Goal #3 to preserve and restore the land by using innovative waste management practices to reduce risks posed by releases of harmful substances. This includes sub-objectives 3.1.1 (reduce waste generation) and 3.1.2 (manage hazardous waste safely). Other EPA goals addressed by Colorado's proposal include sub-objectives 1.1.1 and 1.1.2 to clean air and reduce risk for toxic air pollutants, objective 1.5 reducing greenhouse gas intensity, and Goal #2 related to reducing the release of contaminants to water.

The proposed project start date is 6 months before issuance of the innovations grant to allow for two full cycles of performance measures to be included in the grant. The project duration is three and a half years to allow time for program development and more effective measurement of outcomes from 2 full cycles of data. Barriers may be feasibility of developing an effective interactive model and the ability to coordinate between air, sustainability, waste and water to encompass multiple programs. There will be additional cost to develop and install the electronic system for Colorado's ERP. The expected benefits are a single ERP interface with the public for CDPHE that will enhance the ability to include multiple regulatory programs, over time save money for the department, and possibly reduce transaction costs for regulated facilities.

Target Dates for Key Milestones

Key Activities and Tasks	Pre-Grant Development Work	Estimated Timeline for Initiation and Completion
Educational material development and pilot study	1st Cycle - Create CD of multi-media Educational Material	3 Months: 03-06/2006
	Regulations, P2 Documents, Guidance Documents	3 Months: 03-06/2006
	1st Cycle - Approval of Workbook by all applicable Programs	
	1st Cycle - Perform Pilot Survey and update SQG Workbook on a CD	3 Months: 06-09/2006

Key Activities and Tasks	Product, Measures and Outcomes	Estimated Timeline for Initiation and Completion
Workbook development	1st Cycle – Post non-interactive SQG Workbook to the Web	1 Month: 10/2006
	2nd Cycle - Approval of Workbook by all applicable Programs	3 Months: 10/2007-12/2007
System design	Develop and update Multi-media ERP database and reports	18 Months: 10/2006-03/2008
	Beta Testing of UserID and Password Interface	3 Months: 09-12/2007
	Beta Testing of Retrieving Data from Forms and repopulating Form for incomplete surveys.	2 Months: 01-02/2008
	Development and Implementation of the Multi-media interactive electronic SQG Workbook	6 Months: 06/2007-03/2008
Implement web SQG workbook for two cycles.	1st Cycle - Receive hardcopy of all Survey Information 1st Cycle - Complete All Follow-up Inspections	9 Months: 10/2006-06/20079 Months: 01-09/2007
	1st Cycle - Initiate all enforcement actions	9 Months: 04-12/2007
	2nd Cycle - Receive electronic data for all Surveys	9 Months: 04-12/2008
	2nd Cycle - Complete All Follow-up Inspections	9 Months: 07/2008-03/2009
	2nd Cycle - Initiate all enforcement actions	9 Months: 10/2008-06/2009
Measures and Goal Analysis	1st Cycle - Determine Compliance Rates of Survey and Inspection for Air, Water, and Hazardous Waste.	5 Months: 10/2007-02/2008
	1st Cycle - Multi-Media Report identifying goals and accomplishments	1 Month: 03/2008
	2nd Cycle - Determine Compliance Rates of Survey and Inspection for Air, Water, and Hazardous Waste.	5 Months: 04-08/2009
	2nd Cycle - Multi-Media Report identifying goals and accomplishments	1 Month: 09/2009

Project Goals and Environmental Outcomes and Outputs

To the maximum extent practicable, the department's pre-proposal: 1) links to the Agency's Strategic Plan/GPRA architecture; 2) includes outputs and outcomes in the work plan and final report; and 3) demonstrates how the results from the project contribute to EPA's programmatic goals and objectives.

The goals of CDPHE's proposal are to: 1) achieve specific measurable environmental results as described below; 2) "touch" facilities that may have or be required to obtain state and federal permits and licenses (CAA, CWA, etc.); 3) fundamentally change our compliance monitoring and permitting (where applicable) to attain better compliance by using our resources much more efficiently and effectively; and 4) achieve CDPHE's strategic goal of achieving a sustainable Colorado through performance-based programs, including using cross media and environmental leadership tools. CDPHE will use this project to demonstrate internally and externally that ERP is an effective tool to achieve enhanced compliance, greater knowledge about our regulated community, and greater environmental benefits through prevention and reduction of pollutants.

Common metrics and Environmental Business Practice Indicators (EBPIs) will be predetermined and can transfer from sector to sector and state to state for a more accurate evaluation of environmental results. The data system template will be portable so it can be duplicated for other state's implementation of ERPs. The data system will be used to resolve cross media environmental impacts and will track outputs to determine outcomes and identify environmental trends.

CDPHE's approach will also result in consistent metrics and measurement tools across our programs, since the state's ERP team will include representatives from all program areas. The following outputs and outcomes will be tracked and evaluated, where provided by the facilities or tracked by CDPHE:

Measurement	Expected Timeframe	Measurement Approach
Environmental performance -Pollutants (air, water, and hazardous waste) -Cross media assessments and resolution of cross media issues -Pollution prevention through waste reduction/product substitution/ recycling The above will be linked to EBPIs	Short term	-Facilities will report pollutants/year -CDPHE use environmental balance sheet -Facilities will report reductions/year
Environmental compliance -Compliance rate baseline and compliance rate changes -Increased understanding of regulations -Reduction in required enforcement actions -Number of facilities that qualify to be in the State's Environmental Leadership Program -Survey and inspection data will be entered into the National RCRAInfo database	Short term Short term Short term Long term	-Track number of actions -Number of successful referrals -SQG survey commitments, inspection types and regulatory coverage areas
Cost reductions realized by regulated entities	Long term	Facilities will report: -Energy and water cost savings -Waste handling and disposal savings -Administrative cost savings
Compliance resource effectiveness: -Higher touch rate with existing staffing levels -Reduced administrative cost per facility touch -Improved attitude of facilities and increased desire to comply -Reduce internal resources staff man hours realized to oversee corrective actions and enforcement	Short term Short term Long term Long term Long term	-Cost per facility brought into compliance -Facilities will report -Cost per facility brought into

-Integrated communication between the air, water, waste, and sustainability divisions		compliance -Intangible through interviews
Other measurements include: -Stakeholder involvement -Defined ERP target group -Electronic workbook that is a training tool -Generation of training materials -Compliance rate assessments through comparing facility responses and follow up site visits -An ERP system that will be designed to interface with the information exchange node	 Short term Short term Short term Short term Short term Long term	 -Number of stakeholders approached -Number of facilities in program -Workbook -Training materials

CDPHE will work to collect the above information as appropriate and available for both baseline and outcome measures. Most of the data will be collected through the self-certification forms with the department visiting up to 10% or a statistically valid number of the facilities to verify the certifications. The surveys will be sent to participants to measure the baseline and change in environmental attitudes, behaviors and conditions in the first and second cycle of the program. The above measures are primarily focused on environmental and resource outcomes versus outputs. The milestones described above include both key outputs and outcomes. Certain of the outcome measures may need to be estimated based upon a percent of response rates from site inspections.

Pre-Proposal Budget Summary Page

Colorado Department of Public Health and Environment, Environmental Results Program

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