Fostering Environmental Leadership in the Public Sector: Implementing Environmental Management Systems in Government Entities

Background

In 1997, U.S. EPA sponsored the first of two initiatives to help local governments test the applicability and benefit of an environmental management system (EMS) on environmental performance, compliance, pollution prevention, and stakeholder involvement in government operations. The overwhelming success and enthusiasm generated for EMSs during this initiative prompted a second U.S. EPA EMS Initiative for Government Entities. Sponsored by the U.S. EPA's Offices of Water, Air and Radiation, Compliance, Solid Waste, and Regions I and IX, the second initiative began in March 2000 and is scheduled for completion in February 2002. Currently midway through the process, the participants are already beginning to experience compelling benefits in the areas of natural resource conservation, energy efficiency and increased recycling rates, and are identifying ways to improve and streamline internal operations.

Participants

Fourteen participants were selected - from an applicant pool of over 50, to participate in the current U.S. EPA EMS initiative - demonstrating that EMSs are an accepted tool in the public sector. One unexpected benefit within this group has been the sharing of ideas and collaborative problem-solving. The exchange of ideas and information among the participants has proven an invaluable key to success.

Each participating organization has selected a facility/organization ("fenceline") in which to implement the EMS.

Public Entity	Fenceline
City of Berkeley, CA	Solid Waste Management Division
City of San Diego, CA	Refuse Disposal Division
City of Detroit, MI	Department of Recreation & Public Lighting
Florida Gulf Coast University - Fort Myers, FL	Solid Waste, Purchasing, Energy Efficiency, and Stewardship of Lands
Port of Houston, TX	Container Terminal and the Central Maintenance Department
Jefferson County, AL	General Services Department
Little Blue Valley Sewer District - Independence, MO	Wastewater Treatment Facility
Louisville and Jefferson County Metropolitan Sewer District - Louisville, KY	Wastewater Treatment Facility and Purchasing Department
Wisconsin Department of Natural Resources - Madison, WI	Air Management Bureau
Tri-County Metropolitan Transportation District - Portland, OR	Maintenance Facilities
King County Solid Waste Division - Seattle, WA	Entire Division - Eight Transfer Stations & one Regional Landfill
Massachusetts Department of Environmental Protection - Lawrence, MA	Wall Experiment Station Analytical Laboratory
University of Massachusetts - Lowell, MA	Olney Science Building - Laboratory
New Hampshire Department of Transportation - Concord, NH	Bureau of Traffic

The participants are being guided through the EMS development and implementation process over four phases. As with the first initiative, U.S. EPA and the Global Environment & Technology Foundation (GETF) are working together to provide training, materials and technical assistance to help the participants complete the milestones of the project's four phases. In addition to the quarterly workshops, GETF provides individual technical assistance to each participant through bi-weekly conference calls to solve problems and provide feedback, conducts individual site-visits, and holds all-hands monthly conference calls.

Benefits

The workshop held in February 2001 at Florida Gulf Coast University in Ft. Myers, FL marked the halfway point of the project. Participants were delighted to welcome Diane Regas, Acting Deputy Administrator for U.S. EPA's Office of Water and to describe their EMS experiences and benefits realized so far:

- Recycling: "*Building on the momentum generated early on in the program, we moved forward with a recycling program for lab waste that has diverted 18,000 lbs of waste from the landfill in a three-month period.*" Massachusetts Department of Environmental Protection - Wall Experiment Station Laboratory

- Water Conservation: "*In our efforts to conserve potable water use in our operations we realized we have 1 million gallons of rainwater available in our sedimentation basin per large storm event. By using this water for dust control and soil compact we estimate conserving about 800,000 gallons of potable water and $1,500 in water fees on an annual basis.*" San Diego Refuse Disposal Division - San Diego, CA

- Efficient Regulatory Tracking: "*Implementing an EMS enables us to embark on a huge project we always knew we needed to do but could never find the time for - to consciously identify all our regulatory requirements and formally designate responsibility for compliance and updates. We always felt we had a handle on this, but our procedure to identify our legal requirements now relieves worries that we might have missed something.*" King County Solid Waste Division - Seattle, WA

The participants also reported that one of the project's keys to success is the enthusiastic participation, commitment and support of the U.S. EPA sponsors. Demonstrating their support for the initiative, the project sponsors participate in the site visits and training sessions. According to Jim Horne, U.S. EPA's National Project Manager,

"*The most recent workshop in Ft. Myers confirmed U.S. EPA's belief that programs like this are making a real difference in the operations of public agencies. The enthusiasm and commitment of the participants was extremely gratifying and we look forward to publicizing their successes with other public agencies in the future.*"

Visions for the Future

At the Ft. Myers workshop the participants also learned how to establish environmental management programs (EMPs) to achieve their objectives and targets, and also discussed ways to maintain better control of their significant aspects. The participants expect to realize a multitude of additional improvements in both environmental and economic performance as they begin to achieve the objectives and targets set earlier in the program. Expected benefits include:

- Resource Conservation: "*In light of this summer's expected electricity shortages and water rationing we have set objectives and targets that will focus on resource conservation for both our bus and rail maintenance operations. Through these conservation initiatives we plan to save about 10% of our budgeted utilities which could result in $85,000 - $90,000.*" Tri-County Metropolitan Transportation District - Portland, OR

- Operational Efficiency: "*Using the process flow diagrams (PFDs) from the aspects investigation phase of the EMS, the Safety Committee has begun preparation of job hazard analyses (JHA) for approximately 200 work activities at the Bureau. It is estimated that the use of the PFDs will save approximately 300 hours of JHA development time - amounting to approximately $5,000 in savings.*" NH Department of Transportation - Concord, NH

- Air Quality: "*The Port of Houston Authority (PHA) has been significantly involved in the development and implementation of the Houston One-Hour Ozone State Implementation Plan (SIP). To fulfill our role in this effort we have set a target to reduce our NOx emissions by 320 tons per year, which goes well beyond EPA's cost effectiveness guidelines. The PHA has been testing innovative technologies to reduce emissions and has committed to implementing these technologies through our EMS efforts to achieve this goal.*" Port of Houston Authority - Houston, TX

The participants are scheduled to meet next for training in New England in October 2001. Training during this quarterly workshop will focus on the monitoring and measuring elements of an EMS. GETF will show participants how to track progress toward achieving their objectives and targets which will help in their efforts to evaluate both environmental and economic performance. Training will also be provided on how to conduct EMS audits and management reviews.

In an effort to leverage and extend the mentoring and information sharing that already exists among the current EMS Initiative participants, the U.S. EPA and GETF are partnering to further promote the use of EMSs in government entities through the Public Entity EMS Resource Center, PEER Center. This Center will provide EMS information tailored to the unique characteristics of public entities to include technical assistance, mentoring, and training. The PEER Center project will be executed over a period of two years. For more information please contact Noeleen Tillman at (703) 750-6401 or ntillman@getf.org.

For more information on the U.S. EPA EMS Initiative for Government Entities please contact
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Or visit www.getf.org/projects/muni.cfm for regular updates on the project.
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