



## Environmental Management Systems and Public Seaports

Public seaports today are challenged to provide a healthy environment for their citizens and to be good stewards of public funds in meeting public needs for economic development. An Environmental Management System (EMS) is a tool that can help ports to meet both of these goals. As an integrated process management system, an EMS will enable port authorities to identify today's realities and risks and to implement realistic solutions in an effective manner. The EMS framework can also support continual improvement in other port-identified focus areas such as health & safety, security, operational efficiency and community relations.

### Benefits of EMS

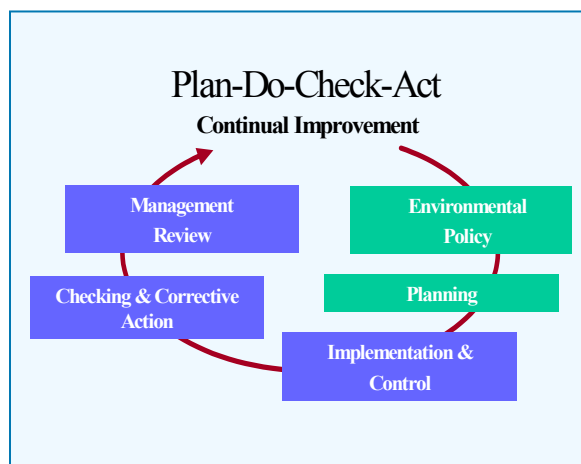
- Demonstrate leadership in environmental protection
- Enhance credibility and public image
- Reduce cost and improve efficiency
- Lower environmental liability and improve insurance coverage
- Improve emergency response capability
- Increase staff awareness, competency, involvement and morale
- Establish common management framework to integrate other port objectives such as safety, security, operational efficiency and community relations.

*Developing a comprehensive EMS was the key to changing the way we think about and conduct our business. Already, our EMS has demonstrated substantial cost savings and reduced delays in working with regulatory agencies.*

Bill Wyatt, Executive Director  
Port of Portland (OR)

### Environmental Management Systems & What They Can Do for You

An EMS can provide your port with a structured approach for managing environmental responsibilities. An EMS makes it easier to find and fix the root causes of potential environmental problems and to improve environmental performance, prevent pollution, and conserve energy and natural resources. Using an EMS, your port can incorporate strong operational controls and best management practices into existing job descriptions and work instructions. The most commonly used framework for an EMS is the International Standards Organization (ISO) 14001 Standard. This framework follows a well-known model called "Plan, Do, Check, Act," which your port can apply to assess, protect, confirm and improve its development, operations and services.



### What is Involved in EMS Implementation?

- Strong management commitment
- Understanding risk and impact
- Defining environmental goals and objectives
- Establishing and maintaining procedures
- Communicating responsibilities and progress to employees
- Monitoring and measuring performance
- Regulatory agency involvement and community outreach
- Continually revising and improving the system

## Case Study Example

The Port of Houston Authority (PHA) adopted an EMS at its Barbours Cut Container Terminal and its Central Maintenance Facility in order to improve its environmental performance, reduce costs and provide regulatory benefits. Through the establishment of an internal EMS team and with the involvement of all PHA departments, the EMS effort focused on environmental issues in the following areas: stormwater impacts, air emission reductions, and waste minimization. PHA staff received assistance in preparing its EMS by participating in the U.S. Environmental Protection Agency's EMS Initiative for Local Government Entities. In its first two years, the PHA's EMS has minimized stormwater impacts, reduced absorbent disposal by 75% and nitrogen oxide emissions by 3 tons, and completely eliminated the disposal of oily rags. In addition, the PHA expects to see substantial benefits in its insurance coverage due to its comprehensive EMS documentation and demonstrated operational controls.

*Our port has received strong support for our EMS from state and Federal regulatory agencies. This has translated directly into better working relationships on important port projects. We have even received substantial grant funding to demonstrate innovative practices.*

Tom Kornegay, Executive Director  
Port of Houston Authority

## How Much Does an EMS Cost?

Resource commitments will vary depending on the size of the organization, the extent of operational activities, risks and impacts, and the gaps between how the organization currently manages its environmental issues and how it wants to manage them in the future. Based on data collected since 1997, the resources that public agencies commit to EMSs are primarily direct labor costs, with no additional employees or specialists needed on the workforce. Direct labor costs have averaged about 8 hours per employee per year to integrate EMS activities into their daily activities.

## Port EMS Assistance Project

The Global Environment & Technology Foundation (GETF), in partnership with the American Association of Port Authorities (AAPA) and the U.S. EPA, is organizing a two year project in which up to 10 ports will receive EMS training, mentoring and technical assistance. Modeled on EPA's successful EMS Initiative for Local Government Entities, participating ports will share the cost of this project at \$45,000 total per participant over the two-year period. Travel and labor costs necessary for attending up to five project workshops and developing EMS work products are the responsibility of each participant. Additional information about this project, including an application to become a participant, will be distributed to AAPA members in July 2003. For more information, contact one of the partner organizations listed below.

## Port EMS Assistance Project Partners



AAPA, the alliance of leading ports in the Western Hemisphere, protects and advances the common interests of its diverse membership of public port authorities from throughout the Western Hemisphere as they connect their communities with the global transportation system. Contact: Tom Chase, 703-706-4715, [tchase@aapa-ports.org](mailto:tchase@aapa-ports.org).



EPA's Office of Policy, Economics, and Innovation is partnering with the port industry through its Sector Strategies Program (SSP) to promote EMS. In addition, the SSP is providing a sector point-of-contact within EPA to assist in resolving regulatory or other barriers to performance improvement, and to facilitate the measurement and reporting of environmental performance information. Contact: Kathleen Bailey, 202-566-2953, [bailey.kathleen@epa.gov](mailto:bailey.kathleen@epa.gov).



GETF is a 501(c)(3) not-for-profit that provides EMS training and support to public entities. Visit GETF online at <http://www.getf.org>. GETF manages the National Public Entity EMS Resource (PEER) Center, which is a central clearinghouse of key resources such as service providers, sample documentation, state EMS programs, mentors, training materials and case studies. The PEER Center is made possible through a cooperative agreement with the U.S. EPA EMS Programs (<http://www.epa.gov/ems>). Visit the PEER Center at <http://www.peercenter.net>. Contact: Jeff DuTeau, 703-750-6401, [jduteau@getf.org](mailto:jduteau@getf.org).