

**DEPARTMENT OF HEALTH AND  
HUMAN SERVICES**

**ENVIRONMENTAL MANAGEMENT  
SYSTEM (EMS)**

**MANAGERS GUIDE**  
**March 2004**

**This guide was prepared by the Departmental Environmental Quality Program Office, Office of the Secretary, Office for Facilities Management and Policy, for the managers of Department of Health and Human Services sites, facilities, installations, offices or organizations where those individuals have authority to allocate resources and direct activities. This guide will also be valuable for any senior individual with responsibility for directing activities and allocating resources at an organizational level or with other responsibilities for employees or operations. This guide has been adapted from a similar document first developed by the U. S. Department of the Army.**

# INTRODUCTION

Implementation of an Environmental Management System (EMS) is a recognized sound business practice designed to increase effectiveness and efficiency through better management of environmental issues that can affect the mission of an organization. Whether your organization's mission is developing new healthcare tools, ensuring military readiness, management of public lands, or any of the other hundreds of responsibilities assigned to the Federal government, EMS will help you do your job.

As part of the evolution of the Federal government's management process, formal EMS implementation is taking place across the Federal government. By the end of 2003, over 200 Federal facilities and organizations were actively implementing EMSs in a wide variety of settings including laboratories, military bases, wildlife refuges and offices and the number continues to grow. By the end of 2005, it is anticipated that several thousand Federal facilities across the Nation will have successfully deployed an EMS.

The success of EMS efforts reflects senior management commitment and support. You will play a vital role in EMS implementation at your facility. You will be responsible for assigning the team members, providing resources and support for development and reviewing the progress of your facility's or organization's EMS. You will also be there to reap the rewards of your organization's efforts. While the process takes time to get started and fully functional, Federal facilities are already reporting cost savings and improved facility management as some of the benefits brought about by pursuit of an EMS.

This EMS Managers Guide was developed to provide useful information on the business case for EMS implementation at Federal facilities. It also describes the roles and responsibilities of senior managers throughout the EMS process from getting started to management review and program improvement. You need not know every detail of the EMS process, that is the responsibility of your staff. It is critical, however, that you recognize the programmatic benefits that will accompany EMS implementation and support efforts at your facility or organization. This document is designed to provide that information.

# **Department of Health and Human Services Environmental Management System: Managers Guide**

## **What is an Environmental Management System?**

To some degree, all organizations consider environmental issues in their overall management processes. For some, it means dealing with a problem when a compliance issue is raised by an internal audit of compliance with environmental regulations. Alternatively, environmental considerations may take a commanding role in decision-making due to the organization's policies. Each of these approaches can be considered the existing environmental management system for those organizations.

The goal of implementation of a formal Environmental Management System (EMS) framework by an organization is to ensure that the approach taken is the most effective in order to enhance the capabilities of the organization to pursue its mission. EMS implementation is a globally embraced business management practice that allows an organization to strategically address its environmental, health and safety matters. Employed by many private sector businesses, EMS implementation reflects accepted quality management principles based on the "Plan, Do, Check, Act," model using a standard process to identify goals, implement them, determine progress, and make improvements to ensure continual improvement. Successful EMS implementation helps organizations avoid problems and improve efficiency by increasing awareness of the role environmental issues play in supporting the mission of the organization.

## **THE BUSINESS CASE FOR EMS**

### **Enhanced Mission Focus**

When properly implemented, a formal EMS focuses on the relationship between environmental issues and the mission of a facility or organization. In order for the EMS to be an effective management tool, the process must reflect the activities that represent the mission of the organization. Facilities or organizations begin EMS implementation by addressing activities critical to mission execution and determining how to manage the related environmental aspects to sustain efficient and effective operations. The goal is to systematically identify and actively manage all environmental issues that can potentially hinder mission accomplishment.

### **Addressing Future Challenges**

Environmental issues are closely associated with some of the major challenges Federal leaders will face in the coming decades. Such issues include:

- Ø Increasing interests of communities located adjacent to or near Federal facilities. The

public interest in activities on Federal lands will continue to impact decisions at Federal facilities. The Federal government is committed to being a good neighbor and responding to community environmental concerns is critical to gaining and maintaining community support.

- Ø Environmental regulatory requirements will continue to grow as new information on possible concerns becomes available. An EMS may allow an organization or facility to identify and address concerns before they reach regulatory status or the EMS will ensure that mechanisms are in place to achieve compliance when new regulations are enacted.
- Ø Increases in site funding and manpower resources to address facility management issues are unlikely.

These and other challenges point to the need for a better way to reconcile mission, environmental, and community issues. In the past, environmental programs at Federal agencies and facilities have focused on regulatory compliance as the goal and accepted standard for environmental management. That approach may not suffice in the future.

EMS implementation can identify issues that will affect operations and address program limitations through better, proactive, planning. Moreover, the EMS process requires an organization or facility to examine both current and potential future mission activities and requirements. This long-term perspective provides a mechanism for effectively identifying and managing both current and future environmental issues. Further, the requirement to examine both regulated and non-regulated environmental aspects allows the organization to identify and respond to issues, such as community concerns, which otherwise might remain unnoticed until they became unmanageable.

## More Effective and Efficient Operations

A very effective way of doing business is to anticipate potential environmental problems early in the planning process, design activities to minimize or avoid problems, continually check performance, and make improvements where appropriate.

The EMS concept represents a fundamental change from the traditional reactive, compliance-based environmental management programs to a proactive, impact-predicting management system that is focused on the mission and embedded in everyday business processes and mission activities. While an EMS will certainly improve environmental performance, it has been proven to enhance performance in mission areas as well. Further, the detailed process of reviewing environmental issues associated with the installation's activities, products, and services often identifies redundancies, wasted effort, and coordination problems that lead to inefficiencies.

## Cost Savings

The costs associated with environmental issues can be significant. In addition to the cost of maintaining permits and records, the cost associated with activities such as hazardous waste disposal, can be substantial. Implementation of an EMS identifies opportunities to reduce those costs through more efficient management and through pollution prevention efforts that reduce or eliminate the source of the problem. This approach also helps avoid costs through better management of risks.

## Improved Environmental Accountability and Compliance

Properly implemented, the EMS process clearly outlines the responsibilities associated with achieving and maintaining compliance with environmental regulations. Moreover, the EMS ensures that all functional areas at a facility or within an organization recognize the relationship between their activities and potential environmental issues that could affect the mission of the organization. While this may appear to be an increased responsibility, ultimately it empowers each individual to contribute to the goal of environmental stewardship. Finally, by identifying environmental compliance as part of the foundation of the EMS, organizations are better able to identify regulatory compliance issues and address the root cause of the compliance problems to prevent recurrence.

## Improved Interactions with Local Communities and Regulators

Local communities recognize and appreciate your open commitment to improved environmental performance. Communications with the public are usually improved and refined as a result of EMS procedures. Regulatory agencies welcome EMS for similar reasons. A properly functioning EMS indicates to the regulator that environmental issues are being addressed. With a properly operated EMS, key environmental information is well organized and easy to obtain, and compliance problems are usually reduced. Some sites that have implemented an EMS have noticed an improved relationship with regulatory agencies and less frequent inspections.

## THE SENIOR MANAGER'S ROLE

Top level management commitment sets the tone for implementation of the EMS. Success depends on the ability of senior management to communicate support for the goals of the EMS, recognize and communicate its benefits and maintain the organization's focus during the implementation process.

## Adequate Resources—People and Funding

**People.** Effective EMS development and implementation is a challenging task and requires the involvement of top performers. Contractors and consultants can provide valuable support, but one of the unique aspects of an EMS is the ownership of the process by the facility personnel. Key facility personnel must provide the bulk of the effort because they are the ones who own, understand, and take responsibility for the environmental personality of the facility. Top level

management must select an effective leader to serve as the organization or facility EMS Coordinator. Other personnel selected to serve on the EMS team must represent a broad cross-section of the organization, not just “environmental” personnel.

The quality of the individuals assigned to this effort directly reflects the manager’s commitment to the EMS concept and determines its ultimate success. Those involved in EMS development and implementation must have a broad knowledge of their organization’s facility operations, a willingness to learn, and a commitment to continual improvement. Finally, they must be given authority to pursue implementation of the EMS and look at ways to redistribute workloads and provide time for the EMS team members and other important personnel to focus on the task.

**Funding.** Top level management must ensure that sufficient resources for initial stages of EMS implementation are available. This includes personnel and support to develop, implement and maintain EMS programs, procedures, and controls. Senior management should ensure that EMS implementation requirements receive a sufficiently high priority for funding when competing against other activities.

## Support for the EMS

**Internal Organization Commitment.** Top level management must champion the EMS and ensure that key organization or facility stakeholders such as those responsible for budget or facility operations are aware of the management commitment to the EMS. Change comes slowly to any organization. Ensure that personnel know that you support the EMS and that they are accountable for the success of this effort.

**Environmental Policy.** The organization’s senior manager must sign the EMS policy statement. A robust, clear environmental policy statement is a documented reminder of what is expected by senior leadership. The policy is a critical document in the EMS process and is the ultimate guiding environmental principle for each individual within the organization or facility.

**Local Community Outreach.** Senior managers represent their facility or organization through interaction with local community leaders and should communicate the EMS initiative as a positive message to send to the organization’s neighbors. Communicating this issue to the local community is not only good public relations; it is essential to the success of the EMS because neighbors share our most sensitive environmental concerns.

**Momentum.** Fully implementing a formal EMS may take several years, and maintaining momentum can be a challenge. Sustained vision, leadership and top level management commitment are critical to meeting this challenge. When senior managers maintain interest and commitment, employees also stay focused. There will be some frustrations as implementation progresses and previously unforeseen issues arise. Accept these as opportunities and focus on continual improvement to address existing issues and prevent future problems. Don’t allow the focus on the EMS to be diverted by competing initiatives that will result in lesser long-term gains. Remember, organizational attitude reflects leadership!

# EMS REQUIREMENTS, POLICIES, AND STANDARDS

## Executive Order 13148

Executive Order (EO) 13148, “Greening the Government Through Leadership in Environmental Management,” requires the following Federal agency actions:

- By December 31, 2005, each agency shall implement an environmental management system at all appropriate agency facilities based on facility size, complexity, and the environmental aspects of facility operations. The Department of Health and Human Services, chose to implement EMS in two phases.
  - Phase 1 of EMS implementation (due by December 31, 2005), will consider laboratory, medical and research facilities, those having the most significant impact on the environment, as appropriate facilities. Each OPDIV involved in this phase (CDC, FDA, IHS and NIH) will decide whether a specific laboratory, medical or research facility will implement its own/separate EMS or implement an EMS which is applicable to the campus/facility on which the laboratory, medical or research facility is located.
  - The Department intends to implement EMS in other facilities, such as large office complexes in Phase 2. This plan has not yet been determined.
- Environmental management systems shall include measurable environmental goals, objectives, and targets that are reviewed and updated annually.
- Once established, environmental management system performance measures shall be incorporated in agency audit protocols.

## Federal Agency Policies

While EO 13148 is viewed as the Federal Government’s overarching policy commitment to pursuit of EMS and environmental excellence, many Federal agencies, services and bureaus have also developed and issued policies supporting EMS implementation. Signed at the highest levels, these documents endorse the goals of EO 13148 and affirm a fundamental commitment to develop and implement EMS within the organization. Existing Federal policies can be found at the website for the Office of the Federal Environmental Executive. ([www.ofee.gov](http://www.ofee.gov))

## Department of Health and Human Services Policies

The Department of Health and Human Services signed its initial EMS policy as a memorandum to the Heads of all Operating Divisions, Subject: Environmental Management and Environmental Stewardship on May 30, 2002.

This policy was followed by another memorandum to the Heads of all Operating Divisions, Subject: Establishment of Environmental Management Systems, signed by Ed Sontag, the



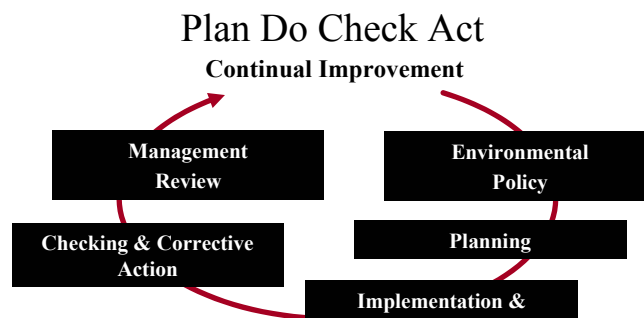
Department's Agency Environmental Executive on February 25, 2004. This memorandum focused on the accomplishments made in the Department since the first policy was published, as well as an announcement of EMS Overview Training for upper management.

## ISO 14001—An International Standard for EMS

EMS implementation is a recognized business tool that has a well developed structure and format that reflects many existing best practices. As such, most organizations or facilities will integrate a specific EMS framework into existing management practices and procedures to reflect the unique features and mission of that organization. While there are a number of acceptable EMS models, they each follow a similar format. One framework that many agencies have elected to use is the ISO 14001 standard.

In the mid-1990s, the International Organization for Standardization developed the ISO 14001 standard to provide a set of internationally recognized criteria for a properly designed EMS. Like a number of businesses, many agencies have elected to use the ISO 14001 standard as a model for implementing EMS at appropriate facilities and organizations. ISO 14001 will assist implementation efforts by providing a common set of requirements, terms, and definitions pertaining to the EMS and its various elements. The ISO 14001 model employs a cycle of policy, planning, implementation and operation, checking and corrective actions, and management review, as shown in Figure 1. The ultimate goal is to continually improve environmental performance as the cycle is repeated. Improved environmental performance also improves mission performance. (The Department of Health and Human Services has chosen ISO 14001 as its EMS model, although our facilities will not apply for certification under this standard.)

**Figure 1. ISO 14001 Model with Mission Focus**



## EMS Implementation Timelines and Metrics –

# First Steps

EO 13148 establishes a deadline of December 2005 for EMS implementation across the Federal government. The deadline allows agencies and organizations adequate time to develop and implement effective EMS programs. At this writing, in early 2004, facilities or organizations should be well underway with EMS development. Initial EMS development steps that should be completed or near completion include:

**EMS Team Formation.** The core EMS team is selected and provided support and resources to begin development of the organization or facility EMS. This team must receive adequate training to ensure proper development of the EMS.

**Self-Assessment or Gap Analysis.** The organization conducts a review of existing processes, procedures, and documentation to determine initial conformance with the selected EMS framework or standard. This information forms the basis for next steps.

**Implementation Plan.** A written plan is prepared with scheduled dates, identified resources, timelines, and organizational responsibilities for implementing an organization or facility-wide EMS consistent with any parent agency EMS policy. This plan is reviewed by senior management for resource considerations.

**Policy Statement.** An organization-wide EMS policy is prepared and is signed by top level management. This clear commitment to EMS principles is called for in most EMS frameworks and is distributed to organization personnel and made available to the public.

**Environmental Aspects and Objectives.** A prioritized list of *environmental aspects* is prepared that reflects activities and the mission of the organization or facility. The organization also identifies its legal and other requirements. Along with policy commitments, *significant aspects* and legal and other requirements form the basis for *objectives* that will be developed for the EMS.

**Awareness Training.** All organizational personnel receive awareness-level EMS training to ensure they comprehend their role in and contributions to the EMS policies and goals.

## NEXT STEPS

As the organization or facility EMS effort evolves, elements such as implementation, checking and corrective action, and management review take form. Each of the EMS features is linked to ensure that the initial planning, analysis and decision process is carried through to implementation. The EMS process then checks to ensure that objectives that were established are being pursued or met and that significant aspects are being tracked. At some point, generally within the first year of implementation, results of the checking phase are brought to management for review. Changes to the EMS may be necessary to address inadequacies or improve general performance. This is expected and senior management is responsible for reviewing and

endorsing adjustments to the organization's or facility's EMS to reflect those changes.

## **EMS RESOURCES AND TOOLS**

Policy information, guidance, training, and implementation tools are available for help in implementing an EMS, and new resources are made available as they are developed at the EPA's EMS website at: <http://www.epa.gov/ems/>. In addition, the Office of the Federal Environmental Executive website at <http://www.ofee.gov/> has a number of useful documents and links to other EMS support websites.

## **CONCLUSION**

An EMS shifts the focus of environmental issues from a defensive, reactive posture to one that is proactive and based on sound planning and informed decision making. EMS implementation is designed to support the mission of the organization or facility and facilitate mission activities. Regulatory and other requirements are considered in setting EMS priorities, but are no longer regarded as the only acceptable basis for establishing environmental goals. Perhaps most importantly, an EMS represents a major culture change from the old paradigm where environmental issues were seen as an impediment to mission success. As EMS implementation takes hold, environmental awareness increases along with a recognition of the impact environmental issues have on the mission and goals of the organization.