

ENVIRONMENTAL MANAGEMENT SYSTEM

MANAGERS GUIDE

Prepared by the Office of the Federal Environmental Executive

April 2004

This guide was prepared for the manager(s) of any Federal site, facility, installation, office or organization where those individuals have authority to allocate resources and direct activities. This guide is also 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.

“Using formal environmental management systems will help Federal agencies more effectively meet their mission objectives and ensure compliance with our nation’s environmental laws. Senior managers should use this tool and be fully engaged in developing, implementing, and sustaining environmental management systems at Federal facilities.”

**Clay Johnson III, Deputy Director for Management,
Office of Management and Budget**

“Senior managers in the Federal government have the opportunity and the responsibility to lead by example, to be good stewards of our Nation's resources, and to help our facilities be good neighbors in our communities. Modernizing your environmental management system and providing strong management support are important tools for achieving these objectives.”

**James L. Connaughton, Chairman,
Councils on Environmental Quality**

Implementation of an Environmental Management Systems (EMS) is a recognized, sound business practice designed to increase effectiveness and efficiency through better management of environmental issues that affect the mission of an organization. Whether your organization's mission is ensuring military readiness, management of public lands, developing new healthcare tools or any of the other hundreds of responsibilities delegated 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, more than 200 Federal facilities and organizations were actively implementing EMSs in a wide variety of settings including military bases, wildlife refuges, laboratories 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 and 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 EMS development and reviewing the progress of your facility's or organization's efforts. You will need to be a champion of the endeavor but will also be there to reap the rewards of your organization's successes. While the process takes time to get started and become fully operational, Federal facilities are already reporting cost savings and improved facility management as some of the benefits brought about by pursuit and implementation of an EMS.

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

ENVIRONMENTAL MANAGEMENT SYSTEM: MANAGERS GUIDE

What is an Environmental Management System?

An Environmental Management System (EMS) is a globally embraced organizational management practice that allows an organization to strategically address its environmental issues and well as related health and safety matters. EMS implementation reflects accepted quality management principles based on the “Plan, Do, Check, Act,” model using a standard process to identify current activities, establish goals, implement plans to meet the goals, determine progress, and make improvements to ensure continual improvement. Implementation of an EMS begins with a comprehensive evaluation of an organization’s operations and activities to determine how they can or do impact the environment. The EMS process then establishes goals and programs to address those impacts and improve efficiencies in the environmental footprint of the organization. The resulting plans are deployed throughout the organization, usually through existing management mechanisms. As the system evolves, it is evaluated to determine whether the goals are being met and, if necessary, plans are amended to achieve the intended goals and continue the improvement process. Each of these elements also serves to make the organization more efficient and prepared to focus on its mission.

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, but they do not provide the benefits associated with a more formal approach shown in the figure below.

The goal of implementation of an EMS framework is to ensure that the approach taken is the most effective in order to enhance the capabilities of the organization to pursue its mission. Successful EMS implementation helps organizations avoid problems and improve efficiency by increasing awareness of the role that 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, effective operations. The goal is to systematically identify and actively manage and improve all environmental issues that can potentially hinder mission accomplishment.

More Effective and Efficient Operations

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. An EMS allows an organization 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. 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, often identifies redundancies, wasted effort, and coordination problems that lead to inefficiencies.

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:

1. 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. Responding to community environmental concerns is critical to gaining and maintaining community support.
2. Environmental regulatory requirements will continue to grow. As new environmental information on possible concerns becomes available, regulations and other related requirements will be issued. An EMS will allow an organization or facility to identify and address concerns before they reach regulatory status. Further, the EMS will ensure that mechanisms are in place to achieve and maintain compliance when new regulations are enacted.
3. Site funding and manpower resources will not likely increase. Additional resources to address facility management issues are unlikely to occur and facilities will be faced with responding to issues by tapping already stressed operating budgets.

These and other challenges point to the need for a better method 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 will 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.

Cost Savings

The costs associated with environmental issues can be significant. In addition to the cost of maintaining permits and records, cost associated with activities such as hazardous waste disposal can be substantial. Moreover, operational costs associated with energy use and maintenance can be significant. 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 by better managing 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 an open commitment to improved environmental performance. Communications with the public are usually improved and refined as a result of EMS procedures. Federal and state regulatory agencies respond positively to EMS implementation for similar reasons. A properly functioning EMS indicates to the public and regulator that environmental issues are being identified and addressed. With a properly operating 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.

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 Staff and Funding

Staff. Effective EMS development and implementation is a challenging task and requires the involvement of top performers. While consultants can provide valuable support, one of the unique aspects of an EMS is ownership of the process by 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 footprint of the facility. Top level management must select an effective leader to serve as the 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 the ultimate success of the EMS. Those involved in EMS development and implementation must have a broad knowledge of organization or facility operations, a willingness to learn, and a commitment to continual improvement. Finally, management must give the EMS team authority to pursue implementation of the EMS. Managers may be required to look for ways to redistribute workloads and provide adequate 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 development and implementation are available. This includes the personnel and financial 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, particularly if management direction is unclear. Senior management must ensure that personnel know of their support for the EMS and that facility staff 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 statement 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 organizations 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. Managers should accept these as opportunities facilitating a focus on continual improvement to address existing issues and prevent future problems. The focus of the EMS must not be diminished by diversions to competing short-term efforts that will result in lesser long-term gains. Remember that 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.
- 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 EMS policies can be found at the website for the Office of the Federal Environmental Executive. (www.OFEE.gov)

ISO 14001—An International Standard for EMS

EMS implementation is a recognized business tool that has a well-developed structure and format that reflects existing best practices. As such, most organizations or facilities will integrate

a specific EMS framework into current 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 Federal 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 development, planning, implementation and operation, checking and corrective action, and management review. The ultimate goal is to continually improve environmental performance as the cycle is repeated. Improved environmental performance also improves mission performance.

EMS Implementation Schedule and Metrics - First Steps

EO 13148 establishes a deadline of December 2005 for EMS implementation across the Federal government. This scheduled 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, time lines, 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 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 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 effort as it is developed and deployed across the facility or organization.

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 web sites.

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 important, 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. Moreover, as the EMS process matures within your organization or facility, not only will the environment benefit, but so will the pursuit of the mission and goals of your organization.