



# U.S. ARMY

## COMMANDER'S GUIDE *for* MISSION-FOCUSED ENVIRONMENTAL MANAGEMENT SYSTEMS

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# EMMS



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# U.S. Army Commander's Guide for Mission-Focused Environmental Management Systems

*"We must strive to become systems thinkers if we are to benefit from the interrelationship of the triple bottom line of sustainability: mission, environment, and community."*

□ Peter Schoomaker  
General,  
Former Army Chief of Staff

## ARMY STRATEGY AND EMS

As the Army rapidly transforms into a more lethal, mobile, modular, and joint force, we are also transforming the manner in which we manage our environmental responsibilities. The Army Strategy for the Environment is a major advancement in the Army's appreciation of the relationship between our mission, the community, and the environment. It outlines a plan to foster a long-term sustainability ethic; strengthen operations; meet testing, training, and mission requirements; minimize impacts and costs; drive innovation; and enhance the well-being of Soldiers, civilians, families, neighbors, and communities. A key element of this transformation is the implementation of a standardized Environmental Management System (EMS) as a mission enabler.



*An EMS is based on a proven business model for continual improvement consisting of four steps:*

- **plan**
- **do**
- **check**
- **act**

## WHAT IS AN EMS?

An EMS is an organized, formal approach to managing an organization's environmental risks. It is based on a proven business model for continual improvement consisting of four steps: plan, do, check, and act. Installations can use this model as a standard framework to clearly identify, prioritize, manage, and check progress toward meeting environmental requirements; minimize environmental, community, and mission risks; and identify areas for continuous improvement. Its standard approach addresses the installation's organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources as they relate to the environment. Simply put, an EMS requires you to say what you are going to do, do what you said, check that you achieved what you said, and adjust the system as needed.

## WHY AN EMS?

Environmental management is not new. Humans have had to find innovative ways to handle waste to limit unwanted impacts for thousands of years. Beginning in the latter half of the 20th century, these impacts became a significant problem, and society quickly reacted with numerous regulations for managing and mitigating them. In response to the regulations, we established environmental management programs. Then, in the aftermath of catastrophic incidents such as Love Canal, Exxon Valdez, and Bhopal, industry leaders began to realize that solely relying on environmental compliance to focus their management efforts was insufficient. Recognizing that factors outside the scope of environmental regulations can greatly affect an organization, private industry created, voluntarily adopted, and standardized formal environmental management systems. The principal driver for environmental initiatives in a formal EMS is risk assessment, not regulatory mandates. The EMS is designed to identify, manage, reduce, and eliminate risks to the environment and organization. The organization decides which risks are critical and develops strategies to evaluate, rank, and eliminate or minimize them. Risks to the mission and community drive the Army EMS.

*Risks to the mission and community drive the Army EMS.*



## EMS POLICY

The EMS has a sound business case, which this guide lays out, but Executive Order (EO) 13148 and DoD policy initially spurred the Army to adopt it.

### EXECUTIVE ORDERS 13148 AND 13423

In January 2007, President Bush signed EO 13423, Strengthening Environmental, Energy, and Transportation Management, continuing the requirements for EMS at all appropriate organizational levels to include all Army appropriate facilities. EO 13423 builds upon the EMS requirement of EO 13148, Greening the Government Through Leadership in Environmental Management.

### DOD AND ARMY POLICY

In July 2001, the Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) issued a policy memorandum directing active and reserve Army Installations, Army Reserve Regional Readiness Commands, and Army National Guard states to:

- Comply with EO 13148 requirements.
- Adopt the internationally recognized EMS standard ISO 14001.
- Use continual improvement to build the remaining parts of a mission-focused, ISO 14001-conforming EMS by September 2009.<sup>1</sup>

*EO 13423 directs all Federal agencies to implement an EMS at all appropriate organizational levels.*

<sup>1</sup> Memorandum for Assistant Chief of Staff for Installation Management, from Raymond J. Fatz, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), OASA(I&E), Subject, Army Environmental Management System, July 13, 2001, [www.sustainability.army.mil/ems](http://www.sustainability.army.mil/ems).



The Army is ensuring that its EMSs are:

- mission and sustainability focused
- implemented fence line to fence line
- incrementally implemented
- ISO 14001 conformant

Holding the environmental staff solely responsible for EMS implementation is **not** an option.

## ARMY APPROACH

### MISSION AND SUSTAINABILITY FOCUS

To be an effective management tool, the Army EMS must focus on supporting mission readiness. Unlike a civilian business, the Army installation has mission focus as the central concept of its EMS policy. The Army's primary mission is to equip, train, and sustain soldiers to fight and win wars with training that takes place under the same conditions and using the same tactics and procedures encountered in combat. The growing restrictions on realistic combat training on our ranges—due to ever-increasing pressure from environmental regulations and surrounding communities—are a major risk to the Army. Traditional, compliance-based approaches to environmental management do not fully address this risk. Regulatory requirements still help to qualify the risks and determine appropriate program elements, but they are no longer the only drivers. The impacts of unregulated environmental risks on the Army's mission have gained prominence and need to be carefully considered if they are to be properly addressed. Environmental actions must move from reactive to proactive approaches to address environmental risks to the mission.

### COMPREHENSIVE IMPLEMENTATION

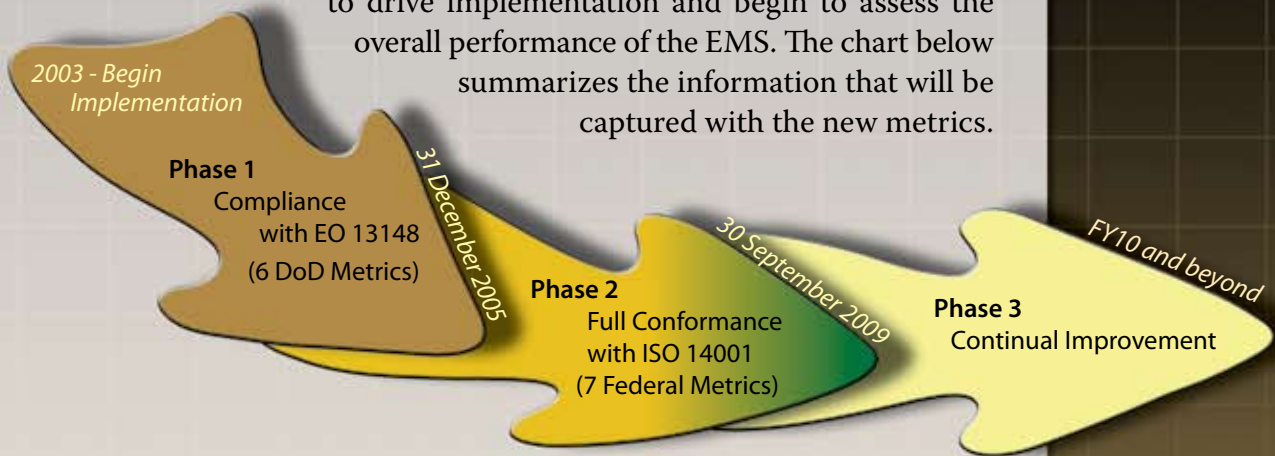
The goal of the Army EMS is to promote mission readiness by continually upgrading the environmental performance of Army installations and by implementing initiatives that facilitate Army mission accomplishment. Under Army policy, each installation on the appropriate facilities list implements an installation-wide EMS, which includes all installation missions, sub-installations, tenants, facilities, contractors, activities, products, and services.

Every organization inside the "fence line" typically participates in the EMS. Holding the environmental staff solely responsible for any EMS implementation is not an option: to always be mission focused and effective, the EMS must span the entire chain of command and all functions.



## INCREMENTAL IMPLEMENTATION

The Army applied an incremental approach to EMS implementation, setting interim milestones for its six implementation metrics in 2003-05 and scheduling full conformance with ISO 14001 by the end of FY 2009. The interim milestones are clear goals for installations and enable tracking of EMS implementation progress. EMS implementation remains a top priority within the administration as evidenced by the recent inclusion of EMS metrics in the Office of Management and Budget scorecard. In FY 2006, the Office of the Federal Environmental Executive developed new EMS metrics that will continue to drive implementation and begin to assess the overall performance of the EMS. The chart below summarizes the information that will be captured with the new metrics.



**Full conformance with ISO 14001 is required by the end of FY09.**

## FEDERAL EMS METRICS

### FY 2006 TO 2008 SCORECARD METRICS\* REPORTED TO DOD, OMB AND FEDERAL ENVIRONMENTAL EXECUTIVE:

1. Environmental Aspects - Review and Update Annually.
2. Objectives and Targets - Identify and Review Annually.
3. Operational Controls, to address significant aspects, are fully implemented; Review and Update Annually.
4. Environmental Competency Training – All needs are identified and training is provided.
5. Contracts – EMS is included in all Appropriate Contracts.
6. EMS Audit – Conduct Internal, or External, EMS Audit Annually.
7. Management Review – Conduct Annually, Addressing Recommendations for Continual Improvement.

*\* These seven metrics represent six of the seventeen elements the ISO 14001 standard. Army policy requires conformance to all seventeen elements by the end of FY 2009.*



**Installations are required to report annual progress and performance as they implement their EMS.**

*The Army adopted ISO 14001 because it is by far the most widely used and internationally recognized standard.*

## ISO 14001 IMPLEMENTATION

The International Organization for Standardization developed the ISO 14001 standard as a voluntary set of internationally recognized criteria for the EMS. The Army adopted the ISO 14001 model because it is by far the most widely used and internationally recognized standard. ISO 14001 describes the 17 elements of environmental management in terms of general management functions: environmental policy, planning, implementation, checking, and management review. The standard does not establish absolute requirements for environmental performance beyond the commitment to regulatory compliance and continual improvement. Instead, it directs organizations to concentrate on systems to achieve the desired performance articulated in their environmental policy and objectives. ISO 14001 allows the Army to align with industry best management practices and offers a common framework by which all Army programs can be structured. Its standardized elements will aid in interoperability and integration as the Army transforms and realigns its installations.



## BUSINESS CASE FOR EMS

### FOCUS ON MISSION

As mentioned previously, the EMS must focus on supporting readiness to be an effective management tool for the Army. This mission focus (operations and training) differentiates the Army installation's EMS from a civilian one. Army installations must begin EMS implementation by addressing activities critical to mission execution and determining how to manage the related environmental aspects and impacts to sustain operational readiness. The goal is to systematically identify and proactively manage environmental issues that can potentially hinder mission accomplishment.

*EMS allows installations to partner with industry and align best management practices.*

### PARTNERSHIP OPPORTUNITIES

Using a common EMS standard has several advantages. Due to its wide use and commonality, ISO 14001 allows the Army to learn from and align with industry best practices. For instance, Fort Hood is the first Federal facility to take advantage of the Partners for Environmental Performance (PEP) program to partner with industry leaders in implementing an ISO 14001 EMS. Fort Hood has worked closely with 3M industry experts, who have extensive experience in EMS implementation, to gain lessons learned, prepare for audits, and focus their EMS on the core mission of the installation. In addition to private partnerships, the EMS standard allows entry into many state incentive programs, which offer similar partnerships with public organizations. A common EMS framework facilitates these partnerships.



*“Learning organizations operate in the sunshine, sharing their work with a broad network and rapidly processing feedback as it is received. They actively seek views and suggestions from industry and intelligentsia, private citizens, and politicians, thereby creating a constructive, two-way communication process.”*

□ BG David A. Fastabend,  
Training and Doctrine Command  
Futures Center, *Adapt or Die*

## JOINT OPERATIONS AND JOINT BASING

The common EMS standard will strengthen the Army contribution to joint operational capability and support a growing joint operational interdependency. As DoD moves to joint force integration, we must look at our environmental services as just that—a service offering—one that is seamless and easily in-

tegrated into tenant organizations. All DoD services and agencies, including the Defense Logistics Agency (DLA), are implementing formal EMSs and have adopted ISO 14001 as the basis. This standard EMS framework is quickly becoming a common language for environmental programs across services. As joint operations increase, the EMS and ISO 14001 will provide a single approach to managing risks and allow a seamless integration of environmental functions. Because all services are adopting ISO 14001, Soldiers, Sailors, Airmen, and Marines will better understand the general requirements of a consistent EMS standard and their roles and responsibilities in regard to environmental stewardship.

## REGULATORY INCENTIVES

Federal and state regulatory agencies recognize formal EMS implementation as an indicator of a facility’s commitment and ability to satisfy regulatory requirements. Regulators understand that organizations that have implemented an EMS are committed to continually improving environmental performance and pose less risk than those that have not. As a result, the U.S. Environmental Protection Agency (EPA) and 29 states have established a variety of incentive programs in recent years for installations with EMSs in place.

These programs, representing a wide range of regulatory and non-regulatory elements, can be classified as follows:

- Reduced frequency of monitoring or reporting
- Increased priority for expedited review of permit applications
- Eligibility for consolidated or streamlined reporting
- Alternative schedules for routine compliance inspections
- Alternative record-keeping and reporting systems
- EMS and compliance assistance
- Public recognition and partnership opportunities
- Regulatory administrative fee discounts.

***Because all services are adopting ISO 14001, service members will better understand their roles and responsibilities in regard to environmental stewardship.***

***Many state and Federal incentive programs have been established for organizations with an EMS in place.***

*Incentive programs can save money, provide operational flexibility, and lessen restrictions on core mission activities.*

*An EMS fosters improved relationships with regulators and local communities.*



*An EMS supports the Army's triple bottom line of sustainability:*

- **mission**
- **environment**
- **community**

Participation in these programs can eliminate unnecessary compliance burdens, increase operational flexibility, reduce total ownership costs, and foster new partnerships to achieve sustained environmental stewardship and a ready military force. Fort Hood used its EMS to gain admission to a state incentives program, the “Clean Texas” program. The Texas Commission on Environmental Quality recognized Fort Hood as a gold member in the program for its EMS and its performance beyond compliance. Via membership in the TCEQ Clean Texas program, Fort Hood garners significant prestige and tangible benefits to include: expedited permitting, reduced inspection frequency, reduced reporting, and alternative compliance and waste handling options. These incentives are saving money at Fort Hood, but more importantly, they are improving operational flexibility and decreasing restrictions on core mission activities.

## IMPROVED COMMUNICATION

Good communication within the installation and with interested external parties is essential in EMS development and implementation. The EMS requires procedures for receiving, documenting, and responding to relevant communications from external parties regarding environmental issues. It also requires documenting key information to be made available to the public. The EMS can also help identify potential environmental aspects associated with contractor’s or supplier’s products and services, and create effective partnerships for integration into the installation EMS. Local communities recognize and appreciate the installation’s open commitment to improved environmental performance, and communications with the public are usually improved and refined as a result of implementing EMS procedures. Regulatory agencies like EMSs for similar reasons. A properly functioning EMS makes the regulator’s job easier. Key environmental information is well organized and easy to obtain, and compliance problems are usually reduced. Installations that have implemented an EMS often notice an improved relationship with regulatory agencies and less frequent inspections.

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## EMS ALIGNMENT WITH OTHER ARMY INITIATIVES

### SUSTAINABILITY

The principles of sustainability emphasize a long-term, strategic perspective and underscore the fact that Army installations are not independent islands, but part of a larger regional environmental, economic, and social system. The concept of sustainability is the interdependence between the Army mission, community, and environment. The Army defines a sustainable Army as one that simultaneously meets current and future mission requirements worldwide, safeguards human health, improves quality of

life, and enhances the natural environment. Sustainability typically reaches beyond the fence line of the installation to look at regional issues and trends that could impact an installation's ability to accomplish future missions. The principles of sustainability are the guiding compass for existing management programs and the vision to move beyond a reactive posture. Sustainability is the "end" toward which we are headed, but the "ways" and "means" must come from many individual component systems, such as the EMS.



### COMMON LEVELS OF SUPPORT

The Installation Management Command (IMCOM) initiative for common levels of support (CLS) focuses on consistent and predictable service delivery at Army installations worldwide. The EMS supports the Army efforts toward CLS, and it is the standard by which installations should be managing their environmental programs. By creating a common management approach with common requirements, the Army can more easily model and distribute resources among installations. This resource modeling will help the Army ensure that resources are spent wisely in all installations and provide greater resources to installations that need them the most.

### LEAN SIX SIGMA

The Lean Six Sigma (LSS) initiative combines the principles of eliminating activities with no value, or "waste" (Lean), and reducing the variation in the remaining activities that causes defects (Six Sigma). Both approaches focus on more efficient business processes. The EMS is compatible with Army LSS initiatives. Like LSS it focuses on continual process control, improvement, and elimination of waste. One component of EMS is the analysis of "significant aspects," elements of an installation's activities that can interact with and significantly impact the environment. A thorough analysis of activities, products, and services allows the installation to focus on the processes and associated aspects that are the highest mission priorities. LSS typically focuses on specific processes so that rapid improvement initiatives can be quickly implemented. The EMS requires an understanding of all processes to prioritize those that must be improved. From there, management programs are developed to eliminate variation in the manner that aspects or risks are managed and mitigated. Several Army Materiel Command installations have begun to effectively leverage their EMS information to support their LSS initiatives. Conversely, the EMS is a proven tool for implementing certain LSS decisions.

*Sustainability is the end toward which we are headed, but the "ways" and "means" must come from many individual component systems, such as the EMS.*

*Like Lean Six Sigma, EMS focuses on process control, improvement and elimination of waste.*

*"The Army must seek continuous, measurable improvement in business processes because this is the foundation for the adaptive, learning culture that we are building in the Army."*

□ Peter Schoomaker  
General,  
Former Army Chief of Staff





***An effective EMS needs strong command support.***

***Commander refers to the garrison commander for active and reserve Army installations, the commander of the individual Army Reserve Regional Readiness Commands, or The Adjutant General for Army National Guard activities.***

***The commander's installation environmental policy statement establishes the overall direction of the EMS.***

***The installation EQCC is a key resource in implementing an effective EMS.***

## THE COMMANDER'S ROLE

### SET THE TONE

The Army, Reserve and Army National Guard commander sets the tone and priority for implementing the installation EMS. Successful EMS implementation depends on an ability to communicate its benefits and maintain the command's focus during the multiyear implementation process. The garrison commander must gain buy-in and support from tenant mission commanders, other leaders, and contractors to implement an effective, installation-wide EMS.

### ENGAGE LOCAL COMMUNITY

The garrison commander frequently interacts with local community leaders, and the EMS initiative is a positive message to share with our neighbors. Communicating environmental issues with the local community is not only good public relations, it is essential to the success of the EMS because our neighbors share our most sensitive environmental concerns.

### DEVELOP POLICY AND OBJECTIVES

A strong, clear environmental policy statement is a documented reminder of command expectations. Everyone on the installation should be aware of the policy and understand the commander's intent. The garrison commander should develop and sign the policy to demonstrate personal support and commitment to achieving the goals and vision within it. The commander should also be directly involved in the establishment of EMS objectives, as they direct the installation's overall environmental program. New commanders should reexamine the current policy to ensure that they endorse it and are willing to commit the resources necessary to carry it out.

### COMMIT APPROPRIATE RESOURCES

The garrison commander must select an effective leader to serve as the EMS management representative (EMSMR) and other knowledgeable personnel to serve on a cross-functional team (CFT). The EMSMR manages and oversees the EMS implementation effort, and the CFT coordinates these efforts with organizations across the installation. Commanders must assign top performers with the appropriate skill and authority to get the job done. Individuals involved in EMS implementation must have a broad knowledge of installation operations and a willingness to learn.

### ENGAGE THE ENVIRONMENTAL QUALITY CONTROL COMMITTEE AND UNIT LEADERS

The garrison commander must champion the EMS and work to gain and maintain the full support of key stakeholders, such as the Environmental Quality Control Committee (EQCC), and other leaders both inside and outside the garrison. Army policy requires installation-wide implementation of the EMS, but the EMSMR needs the commander's support.

## OVERSEE AND GUIDE

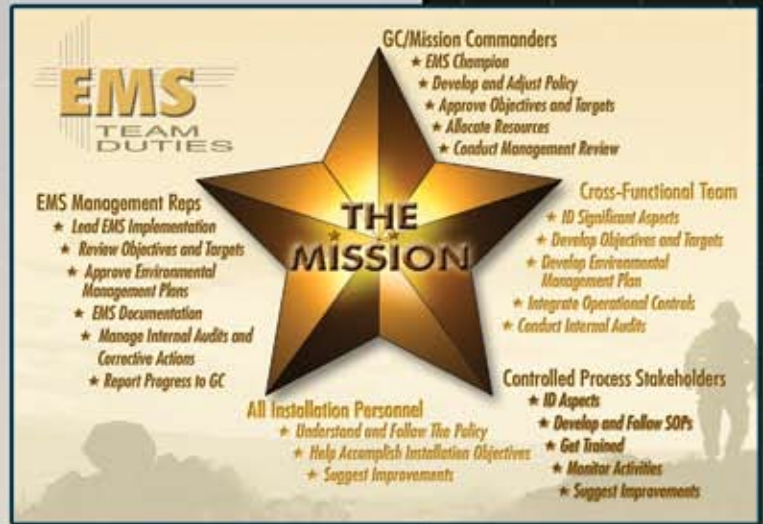
Command oversight, guidance, and encouragement are essential for maintaining momentum over the course of the implementation process. When the commander maintains interest, members of the command also stay focused. The commander must be personally involved in management reviews and issue specific directives as needed.

**An effective EMS requires the involvement of all installation personnel.**

## KEYS TO SUCCESS

The keys to implementation success are:

- Selection of an effective leader as the EMS Management Rep (EMSMR)
- A cross-functional team of experts from across the installation
- An EMS that spans the entire chain of command, includes all functions, and is mission focused
- An EMS that identifies and mitigates risks to the mission and community
- Strong leadership focus
- Involvement of all installation personnel

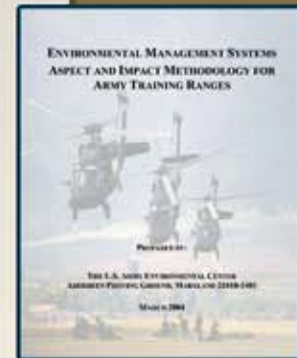
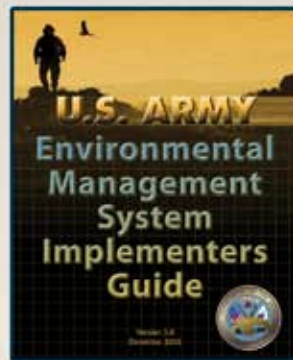


## RESOURCES AND TOOLS

The Army has a number of tools to help installation personnel implement the EMS.

Two primary resources are:

- *U.S. Army Environmental Management System Implementer's Guide*, Version 3.0, December 2005
- *Environmental Management Systems Aspect and Impact Methodology for Army Training Ranges*, March 2004.



A new Army Web site, <http://www.sustainability.army.mil/ems>, consolidates EMS information in one location. Part of the Army Sustainability Web site, this site contains more than 100 documents and links to other pertinent sites. It provides information pertaining to policy and guidance, training materials and briefings, implementation and assessment tools, and EMS articles, lessons learned, and success stories. It contains frequently asked questions pertaining to the EMS and links to the EMS ISO standards. It does not require a user login and is open to anyone who wants Army EMS information.

**The Army has created a Web site that consolidates EMS implementation tools and information in one location.**



*The EMS involves a broad cultural change, which will eventually allow the Army to make systematic management of environmental activities a tool for mission accomplishment.*

## SUMMARY

The *Strategy for the Environment* aligns Army environmental management with its mission goals. A major component of this strategy, the EMS allows an organization to manage its environmental risks like it manages its core business. It promotes mission readiness by continually upgrading environmental performance at all Army installations and by focusing on initiatives with the greatest potential to advance Army mission accomplishment. Finally, the EMS involves a broad cultural change, which—over time and through active, consistent leadership commitment—will eventually allow the Army to make systematic management of environmental activities a tool for mission accomplishment, and foster an Army-wide ethic of partnerships and sustainability.

## STRENGTHENING ARMY READINESS THROUGH MISSION-FOCUSED EMS

- Sustainable operations
- Improved business practices
- Continual improvement





